Ne

Europea

DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited

DTIC QUALITY INSPECTED 8

19980519 037



EUROPEAN
GEOPHYSICAL
SOCIETY

NICE ACROPOLIS

Tel: +33-493-92 81 13
Fax: +33-493-92 81 14

Level 3		***AGORA 3*** **Poster Coffee** **Poster** ST, PS & NP	***LES MUSES*** **Coffee & Poster Coffee** **Rooms** Clio, Thalie, Erato, Uranie, Calliope & Euterpe **Poster** OA & **Video**	**TERRASSE**	**OA**
Level 2	**APOLLON**	***AGORA 2*** **Exhibition** **Poster Coffee** **Poster** G & HS **Video**	***RHODES*** **Exhibition** **Coffee (2x), Poster Coffee & Lunch** **Internet** Gallieni 1 **Section/IWG Offices** **Slide Preview** Slides & Co **Rooms** Studio & R6 Mykonos & Gallieni 2, 3 & 5 R5, R7 & R8 Hermes, Athéna, R1-R4 & R9-R11 **Poster** SE & NH, **Video & PC**	**ATHÉNA**	**NH** **HS** **G** **SE**
Level 1		***AGORA 1*** **Registration,** **Business Center** **Message Boards** **Job Centre** **Editorial Office**	***MÉDITERRANÉE*** **Coffee** **Rooms** M1-M4 M9 & IRIS M5-M8	**IRIS**	**NP** **PS** **ST**
Level 0		**Bank** **Wardrobes** **Payphones** **Council**			

EMERGENCY CALL * 8374 * 8762 * 8757

Schedule of Events

Sunday, 19 April
15.00-20.00 Registration

Monday, 20 April
08.00-18.00 Registration
08.30-17.00 Oral Sessions
10.00-11.30 Refreshments
16.30-17.00 Refreshments
17.00-18.15 Opening & Award Ceremony
18.15-19.00 Society Lecture
19.30-22.00 Icebreaker Reception

Tuesday, 21 April
08.00-18.00 Registration
08.30-17.00 Oral Sessions
10.00-11.30 Refreshments
17.00-19.30 Poster/Video Sessions & Refreshments
17.00-18.00 Society Lecture
09.00-19.30 Exhibition

Wednesday, 22 April
08.00-18.00 Registration
08.30-17.00 Oral Sessions
12.00-14.00 Open Section/IWG Luncheons
17.00-19.30 Poster/Video Sessions & Refreshments
09.00-19.30 Exhibition
19.30-21.00 Conveners' Reception

Thursday, 23 April
08.00-18.00 Registration
08.30-17.00 Oral Sessions
10.00-11.30 Refreshments
17.00-19.30 Poster/Video Sessions & Refreshments
09.00-19.30 Exhibition

Friday, 24 April
08.00-14.00 Registration
08.30-18.00 Oral Sessions
10.00-11.30 Refreshments
15.00-16.30 Refreshments

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	1998	Conference Proceedings

4. TITLE AND SUBTITLE

European Geophysical Society XXII General Assembly, 20 - 24 April 1998

5. FUNDING NUMBERS

F617089

6. AUTHOR(S)

Conference Committee

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Rutherford Appleton Laboratory
Chilton, Didcot OX11 0QX
United Kingdom

8. PERFORMING ORGANIZATION REPORT NUMBER

N/A

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

EOARD
PSC 802 BOX 14
FPO 09499-0200

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

CSP 98-1044

11. SUPPLEMENTARY NOTES

Four volumes of proceedings and one volume of newsletters.

12a. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public release; distribution is unlimited.

12b. DISTRIBUTION CODE

A

13. ABSTRACT (Maximum 200 words)

The Final Proceedings for European Geophysical Society XXIII General Assembly, 20 April 1998 - 24 April 1998

This is an interdisciplinary conference. Topics include meteorology, ionospheric physics, space physics, oceanography, geophysics and geodesy

14. SUBJECT TERMS

Space Science, Atmospheric Science, Ionosphere, Geophysics, Meteorology

15. NUMBER OF PAGES

1546

16. PRICE CODE

N/A

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UL

European Geophysical Society
XXIII General Assembly
Nice, France 20 - 24 April 1998

General Information

Location and Conference Address

The 23rd General Assembly of the European Geophysical Society is held at the congress centre ***Nice Acropolis***.

The congress address is:

Nice Acropolis
1 Esplanade Kennedy
B.P. 83
F-06302 Nice Cedex 2
France

Tel: +33-493-92 81 13
Fax: +33-493-92 81 14

The official entrance if from ***Bd. Risso***. Next bus stop is ***Acropolis***, served by SUN buses Nos. 3, 4, 5, 6, 6A, 16, 16A & 16B.

The assembly is open to scientists of all nations.

Official Language

The official language of the General Assembly is English. Simultaneous interpretation is not provided. It is therefore expected that authors are able to present their research more or less fluently in the English language.

Registration Information

All attendees must register and wear their name badges throughout the meeting hours.

Conference Office, Hotel Booking and Travel Services

The ***Congress Counter*** is located in the Entrance Hall of the Congress Centre (AGORA1). The opening hours are:

Sunday, 19 April	***15.00-20.00***
Monday-Thursday, 20-23 April	***08.00-18.00***
Friday, 24 April	***08.00-12.00***

Final, on-site and day registration, lost and found, messages and the EGS support awards are handled at this counter at any time during its opening hours, while on-site hotel booking and travel arrangements are handled at the separate counter ***Hotel Booking*** behind the Congress Counter.

Members of Cooperating Societies

Members of the following societies may register at the EGS member rates:

- American Geophysical Union (AGU) (only for members with an address outside of Europe)
- Danish Geophysical Society (DGS)
- Norwegian Geophysical Society (NGS)
- Swedish Geophysical Society (SGS).

Non-member Registrants

Participants who are registered at the full-meeting non-member or student non-member rate, are automatically recognized as EGS members for 1998 at no extra charge.

Guest Registration

Guests or spouses attending only the Opening & Award Ceremony on Monday, 20 April, at 17.00 may register at no charge. Otherwise they must register at the "accompanying person" or "daily ticket" rates.

Accessibility for Registrants with Disabilities

EGS wants to ensure that all registrants have access to the sessions and events they wish to attend, and it will therefore gladly assists with arrangements for anyone with special requirements.

Registrants with wheelchairs should use the lift in the Entrance Hall - Lower Level on the right hand side; a security officer will help to access all levels and meeting rooms from this point.

Registration Benefits

The registration fee includes the publication of abstracts in *Annales Geophysicae Supplement*, the conference material incl. one part of the Abstract Books and the Programme Book, use of video/PC demonstration equipment incl. Internet, refreshments during breaks, the Icebreaker Reception, the Section/IWG Business Luncheons, and the participation in all other activities during the meeting.

Moreover, participants, who have registered at the full-meeting on-site rate, are eligible for one free personal subscription to one of the following EGS journals: *Annales Geophysicae, Hydrology and Earth System Sciences* or *Nonlinear Processes in Geophysics*.

Conference Hours

Oral Presentations
Monday-Thursday, 20-23 April, 08.30/9.00-16.30/17.00
Friday, 24 April, 08.30/09.00-18.00/18.30

Poster Presentations
Tuesday-Thursday, 21-23 April, 16.30/17.00-19.00/19.30

Exhibition
Tuesday-Thursday, 21-23 April, 09.00-19.00/19.30

EGS Sponsored Events

Opening & Award Ceremony
Monday, 20 April, 17.00-18.15
Lecture Theatre Apollon

Society Lecture - Monday
Monday, 20 April, 18.15-19.00
Lecture Theatre Apollon
H. Wänke: *Recent Studies of Planet Mars*

Society Lecture - Tuesday
Tuesday, 21 April, 17.00-18.00
Lecture Theatre Athena
P. Kind: *The 5th Framework Programme*

Icebreaker Reception
Monday, 20 April, 19.30-22.00
AGORA2 & MYKONOS FOYER

Complimentary Refreshments

Coffee Breaks
Monday-Friday, 20-24 April, except Wednesday, 22 April, 10.00-11.30
Monday, 20 April, 16.30-17.00
Friday, 24 April, 15.00-16.30

Level 0 - Méditerranée
Level 2 - Mykonos Area & Athéna Foyer
Level 3 - Social Area Les Muses

Poster Coffees
Tuesday-Thursday, 21-23 April, 17.00-18.00, Poster Areas

Level 2 - AGORA2 & Athéna Foyer
Level 3 - AGORA3 & Social Area Les Muses

Section/IWG Business Meetings
Sandwiches & Refreshments are complimentary
Wednesday, 22 April, 12.00-14.00

Solid Earth (SE)	=	Room R10
Geodesy (G)	=	Room R5
Hydrology (HS)	=	Room Gallieni 3
Oceans & Atmosphere (OA)	=	Room Clio
Solar-Terrestrial Sciences (ST)	=	Room M8
Planetary Sciences (PS)	=	Room M4
Nonlinear Geophysics (NP)	=	Room M3
Natural Hazards (NH)	=	Room R1

Council Meetings
Hotel NOVOTEL CENTRE
Sunday, 19 April, 15.00-19.00
Thursday, 23 April, 19.00-24.00

President's Dinner
Monday, 20 April, 20.00, Hotel Negresco (by invitation only)

Reception for Conveners
Wednesday, 22 April, 19.30-21.00, Level 2 - Athéna Foyer (by invitation only)

Best Poster Competition
Ballot papers should be picked up, completed, singed and returned to the Congress Counter
Monday-Thursday, 20-23 April, 08.00-18.00
Friday, 24 April, 08.00-12.00

Only posters with more than 10 votes will enter the final election procedure. The three best posters will each receive one free admission to the next General Assembly.

Lunch

Monday-Friday, 20-24 April, 12.30/13.00-14.00

Salads, sandwiches, deserts and drinks are served:
Level 2 - Mykonos Area & Athéna Foyer
Level 0 - outside of Méditerranée

Otherwise, there are more than 20 restaurants and bars in the Bd. Risso and Av. de la République (all less then 10 min. away)

Happy Hours

Meet your colleagues for informal discussions (cash bar) :
Level 2 - Mykonos Area, during conference hours

Events Sponsored by Other Organizations

Saturday, 18 April

09.00 CSTG Satellite and Lunar Laser Ranging Subcommission Steering Committee, Hotel Aston, Contact: J. Degnan

Sunday, 19 April

09.00 CSTG Executive Committee Meeting, Hotel Aston, Contact: H. Drewes

Tuesday, 21 April

16.30 International VLBI Organization - Draft Document Discussion, Room Gallieni 3, Contact: Th. A. Clark and N.R. Vandenberg
18.00 ESFE Working Group Meeting, Room Gallieni 2, Contact: C. Prodehl
19.00 CSTG Satellite and Lunar Laser Ranging Subcommission Meeting, Room Hermes, Contact: J. Degnan

Wednesday, 22 April

18.00 *Geophysical Journal International* Editorial Board Reception, Foyer Hermes, Contact: A. Khan

Thursday, 23 April

17.00 IGCP 400 Project Meeting, Room Mykonos, Contact: D. Delvaux
19.00 Solid Earth Tides in Space Geodetic Techniques Working Group Meeting, Room Gallieni 2, Contact: H. Schuh

Friday, 24 April

09.00 International Lithospheric Programme, Room R9, Contact: J. Dañobeitia

E-Mail

Level 2 - Room Gallieni 1
Monday-Thursday, 20-23 April, 08.00-18.00
Friday, 24 April, 08.00-14.00

Business Center

Telephone, Telefax and Photocopies
Entrance Hall - AGORA1 behind Congress Counter
Monday-Thursday, 20-23 April, 08.00-18.00
Friday, 24 April, 08.00-14.00

Messages

Contact staff at Congress Counter and Message Boards in Entrance Hall - AGORA1 during congress hours.

Lost-and-Found

Contact staff at Congress Counter in Entrance Hall - AGORA1.

Bank Services

Exchange of money and cash payment on traveller cheques and credit cards (VISA, Mastercard and Diners)
Entrance Hall - Ground Floor
Sunday, 19 April, 15.00-20.00
Monday-Thursday, 20-23 April, 08.00-18.00
Friday, 24 April, 08.00-12.00

Post Office, Pharmacy & Credit Card Suspenders

The closest ***Post Office*** (about 400 m) is 34 rue Barbéris.
Opening hours: Monday-Friday, 09.00-17.00

The closest ***Pharmacy*** (about 150 m) is at the corner rue Smolet/avenue de la République.
Opening hours: Monday-Friday, 09.00-19.30
The closest ***Night Pharmacy*** is in 7 rue Masséna, Tel: 0493877894
Opening hours: Monday-Friday, 19.30-08.30

There are ***Credit Card Suspenders*** at the major banks, such as Crédit Agricole or Crédit Lyonnais, at 27 or 35 avenue de la République, respectively.

Section/IWG Offices

Offices for the EGS Section and IWG Presidents and Secretaries: Level 2 - Rhodes, parallel to Lecture Theatre Athéna

President's & Council's Lounges

Salon Robert C. Lonati, Entrance Hall - Lower Level, left-hand side next to the bank.

Editorial Office

On-site Editorial Office of the EGS proceedings journal *Physics and Chemistry of the Earth.*
Entrance Hall - AGORA1 behind the Congress Counter
Monday-Friday, 20-24 April, 08.00-18.00

Job Centre

Entrance Hall - AGORA1 behind the Congress Counter
Monday-Friday, 20-24 April, 08.00-18.00

Job Candidates
Bring 5 copies of your resumé or CV to be kept on file for employers to review, check the job postings daily and leave messages for those employers you would like to meet.

Employers
Pre-register your job announcement with EGS or register it on-site at the Job Centre and review the resumés and CVs during the meeting.

Wardrobes

Guarded wardrobes are located both on the left- and right-hand side in the Entrance Hall - Lower Level
Sunday, 19 April, 15.00-20.00
Monday-Friday, 20-24 April, 08.00-20.00

Insurance Coverage

Participants may purchase medical insurance protection during their attendance of the EGS General Assembly at the Congress Counter during the opening hours. The price is USD 5,- per day.

Instructions to Speakers

The final programme order will not be changed except in unexpected emergency situations and when marked on the on-site ***Daily Programme*** posted outside the corresponding lecture room.

Please be in your ***lecture room*** at least 10 min ***before*** your session starts. Prepare your slides with your name, a sequence number and a thumb mark before delivering them to the projectionist. Each projectionist will have a copy of the programme. Please inform him or her on the position of your presentation.

If you intend to present a ***video or PC demonstration*** paper, please contact the technical staff in the respective Poster Areas well in advance. It is highly recommended to perform a test-run before your actual presentation.

Since the ***posters*** may be on display for the entire week of the conference, please make sure to put your poster up as soon as possible after your arrival at the conference and to take it down as late in the week as possible. Use only the board(s) actually allocated for your poster, and please be at your display for presentation during the Authors in Attendance Time(s) given in the conference programme.

Please, deliver 4 copies of your manuscript to the ***Editorial Office*** at the assembly and make sure that your manuscript number is included on all copies. This, however, only holds for sessions for which the publication of "proceedings" in *Physics and Chemistry of the Earth* has been decided upon before the meeting. If this decision is reached at or after the meeting, you will receive a written invitation by the EGS Office after the meeting.

Oral Presentations

Lecture Rooms

All lecture rooms are located in the Congress Centre (see front and back covers).

In general, each lecture room is equipped with two overhead projectors with transparencies and felt pens, one slide projector, a pointer, and a speaker's desk. In addition, there is one large screen or two separate screens to allow for double projection at any time.

One projectionist will be present in each lecture room. He/she will accept and show the slides, put up the daily programme, and help the chairperson and the speakers.

In general, 15 min. are reserved for contributed and 25-30 min. for solicited papers, including time for discussion and changeover. For oral summaries of poster papers 2-5 min. are foreseen (1 transparency only).

Slides & Co

Speakers intending to show slides during their presentation, must deliver them clearly marked to the corresponding projectionist well before the beginning of the respective session.

All slides will be projected by special slide projectors from the back of each lecture room. Speakers should therefore prepare their slides to withstand the heat. Otherwise they should contact the conference staff for re-framing their slides in special glass.

For speakers to preview their slides and/or to prepare viewgraphs:
Room ***Slides & Co***, Hermes Foyer, Level 2 - Rhodes
Monday-Thursday, 20-23 April, 08.00-18.00
Friday, 24 April, 08.00-14.00

Poster Presentations

Poster Areas

Poster presentations are organized in Poster Sessions, and Poster Sessions belonging thematically to the same overall topic are organized in separate Poster Areas. An overview and a summary are included on the last pages of this book.

Poster Boards

In general, for each poster paper one numbered poster board is reserved with a clear dimension of 91 cm (width) x 240 cm (height). All the material necessary for attaching the poster to the poster board is available at the EGS Facility Desk in the respective poster area. In addition, there are assistants to help authors in putting up or in taking down their posters.

The number of each poster paper and of its corresponding poster board is given in the appropriate session programme at the left hand side of the author(s)-and-title block of each contribution. The first part of this number indicates the index of the corresponding Poster Area and the second part the running number of the appropriate poster board in that area.

Display Time

In general, the time for the display of all posters is from ***Monday, 14.00, to Friday, 13.00***, i.e., practically the entire week of the conference. Therefore, authors are kindly asked to put up their posters as soon as possible after their arrival at the conference and to take them down as late as possible. In this way conference participants are able to view the posters at any time during the conference hours.

Authors in Attendance Time(s)

the Authors in Attendance Time(s) is (are) the time(s) when the respective authors of a Poster Session must be present at their display for presentation. These times are allocated during **Tuesday-Thursday, 17.00-19.00/19.30**. In general, during this (these) time(s), the Chairperson of the corresponding Poster Session guides the group of participants from poster to poster, in order to guarantee that each author has the opportunity to present his/her poster. The Authors in Attendance Time(s) for each Poster Session is provided in the conference programme.

Videos

Multiple norm VHS video recorders with monitors are installed in the following Poster Areas:

AGORA2 - HS Area (lift close to Apollon)
Rhodes - SE Area (besides escalator to Méditerranée)
Les Muses - OA Area (next to Social Area)

Tuesday-Thursday, 21-23 April, 08.00-19.00/19.30

Personal Computer

A Personal Computer with monitor is installed in the Poster Area:

Rhodes - SE Area (besides escalator to Méditerranée)

Tuesday-Thursday, 21-23 April, 08.00-19.00/19.30

Paper Identification Number for Proceedings

Contributions for Sessions for which the Conveners have foreseen the publication of "proceedings" in *Physics and Chemistry of the Earth* have their own manuscript identification numbers, which are included in the programme at the left hand side of their corresponding author(s)-and-title block. The first part of this number indicates the index of the corresponding Session and the second part the running number of the appropriate paper in the Session. This identification number is for reference purposes, e.g., as MS-No. for manuscripts to be submitted for publication in one of the "proceedings" issues. In case it is decided at the meeting that "proceedings" of a particular session will be published in *Physics and Chemistry of the Earth*, the corresponding authors will be informed by the EGS Office after the assembly, providing also the manuscript numbers, the address of the Editor to whom the manuscripts should be sent, and the deadline date for submission.

Guidelines for Chairpersons

In order for the European Geophysical Society to maintain the quality of its scientific programmes, it is essential that the Chairpersons of the EGS Sessions carry out their functions properly. Below please find a brief description of these functions:

1. General Information

In general, each lecture room is equipped with two overhead projectors, one slide projector, one or two large

screens to allow for double projection at any time, a pointer and a speaker's desk. In order not to disrupt the session schedule, it will be possible to show VHS videos and PC computer demonstrations only in the Poster Areas.

One projectionist will be present in each lecture room. S/he will accept and show the slides, hand out transparencies and felt pens, put up the "Daily Session Programme", help the Chairpersons and the speakers and contact when necessary the technical staff of the congress centre.

All poster presentations will take place in selected Poster Areas. For each poster contribution one numbered poster board will be reserved from Monday, 14.00, to Friday, 13.00 (Display Time). The number, which will also appear in front of the corresponding poster paper in the session programme, indicates the poster area (2 letters) and the position of the board within the area (3 digit running number). At the special time interval included in the session programme (Authors in Attendance Time) the Chairperson(s) and the authors should gather at the session displays for the presentation of the posters.

Authors have been informed correspondingly.

2. Conducting the Session

The Chairperson is responsible for conducting the session. S/he is expected to open and close the session on time and to ensure that the speakers of the session are present and that they are able to make their presentations without disruption. All times allocated for presentations include also the time for discussions and for changeover!

3. Verification of Presenting Authors

Before each presentation the Chairperson should verify that the person to speak is listed in the programme as one of the authors. If this is not the case and the person to speak is not sufficiently acquainted with the work in order to answer questions, only the title of the paper should be read.

4. Time Schedule

In view of the many parallel sessions, the time schedule of the session should be strictly kept. Any disruption is extremely annoying for those wishing to attend certain presentations. Therefore, if a gap should occur in the time schedule and no stand by paper is available to fill in, discussions on the previous talks or short oral summaries of poster papers, if not yet foreseen in the programme, should be stimulated.

5. Programme Changes & Verification of Papers actually presented

Any programme changes received by the EGS Office after the Programme Book has been forwarded to the printer will be included in the "Daily Programme": a copy of the revised session programme enlarged to the size of A3 and put up outside of the corresponding lecture room in the morning before the session starts. The chairperson will receive her/his copy from the projectionist, and s/he is kindly asked to return it after the session. Any last minute modifications as well as a remark as to whether or not a paper has been actually presented will be noted on these programmes by the projectionist.

6. Poster Sessions

Chairpersons for poster sessions should gather and guide the audience from poster to poster in the order of their appearance, and they should invite the authors to present their posters for about 5-10 min. and stimulate discussions afterwards.

Exhibition

Participants are invited to visit the exhibition stands on Level 2 - AGORA2 and Mykonos Area. Here they will find the exhibits of the following companies (in alphabetical order):

Academic Press Ltd. ***Booth #11***
Harcourt Brace Jovanovich,
Publishers 24-28 Oval Road
London NW1 7DX — Tel: +44-171-267-4466
United Kingdom — Fax: +44-171-267-3811
Attn. Lisa Agostini and Rachel Bridgman

AGICO, Inc. ***Booth #04***
Jecna 29a
621 00 Brno — Tel: +420-5-7264-323
Czech Republic — Fax: +420-5-7264-328
Attn. Libro Vejmělek and Jirí Pokorný

American Geophysical Union ***Booth #01***
2000 Florida Avenue, N.W.
Washington, DC 20009-1277 — Tel: +1-202-939-3208
USA — Fax: +1-202-328-0566
Attn. Judy Holoviak and Maureen Matkovich

Cambridge University Press ***Booth #03***
The Edinburgh Building
Shaftesbury Road
Cambridge CB2 2RU — Tel: +44-1223-312393
United Kingdom — Fax: +44-1223-325891
Attn. M. Lloyd and H. Millward

EC DG XII/D ***Booth #08***
SDME 7/74
European Commission, DG XII -
Science, Research & Development
200 Rue de la Loi
1049 Brussels — Tel: +32-2-295-3105
Belgium — Fax: +32-2-296-3024
Attn. H. ter Mors

Elsevier Science ***Booth #14***
P.O. Box 211
1000 AE Amsterdam — Tel: +31-20-4853-786
The Netherlands — Fax: +31-20-4853-809
Attn. Jacques Kiebert, Anna Ypma

Geofrance 3D ***Booth #13***
DR/MGG
BRGM
B.P. 6009
45060 Orleans Cedex 02 — Tel: +33-238-643219
France — Fax: +33-238-644702
Attn. P. Ledru

International GPS Service ***Booth #02***
4800 Oak Grove Drive
Pasadena, CA 91109 — Tel: +1-818-354-9428
USA — Fax: +1-818-393-6686
Attn. Priscilla Van Scoy and David Jefferson

John Wiley & Sons Ltd. *Booth #05*
Baffins Lane, Chichester
Sussex PO19 1UD Tel: +44-1243-770259
United Kingdom Fax: +44-1243-770432
Attn. Dolores Kelly and Sally Wilkinson

Kluwer Academic Publishers *Booth #06*
Spuiboulevard 50
3300 AZ Dordrecht Tel: +31-78-6392-124
The Netherlands Fax: +31-78-6392-323
Attn. Petra van Steenbergen and Eugene de Geus

Refraction Technology, Inc. *Booth #07*
2626 Lombardy Lane, suite 105
Dallas, TX 75220 Tel: +1-214-353-0609
USA Fax: +1-214-353-9659
Attn. Leonid Zimakov

Scintec Atmosphärenmesstechnik GmbH *Booth #10*
Hölderlinstr. 31
72074 Tübingen Tel: +49-7071-921411
Germany Fax: +49-7071-551431
Attn. Volker Thiermann

Springer-Verlag GmbH & Co. KG *Booth #12*
Tiergartenstr. 17
69121 Heidelberg Tel: +49-6221-487-994
Germany Fax: +49-6221-487-908
Attn. Nicola Klupsch and Wolfgang Engel

Wisepress Ltd. *Booth #09*
The Old Lamp Works
25 High Path
Merton Abbey
London SW19 2JL Tel: +44-181-715-1812
United Kingdom Fax: +44-181-715-1722
Attn. N.N.

Sponsorship and Financial Support

We wish to thank the following for their contribution to the success of this conference: United States Air Force European Office of Aerospace Research and Development, United States Office of Naval Research, Europe.

Invitation to the Opening & Award Ceremony and the Society Lecture Apollon, 20 April 1998, 17.00

1. Welcome by the President of the European Geophysical Society, Heinrich Wänke
2. Presentation of the Society's Awards and Medals 1998
   - 2.1. Honorary Membership
     Aksel C. Wiin-Nielsen
   - 2.2. EGS Badge Award
     James S.G. McCulloch
     Roberto Sabadini
   - 2.3. Stephan Mueller Medal
     Peter A. Ziegler
   - 2.4. Beno Gutenberg Medal
     Markus Båth
   - 2.5. Vening Meinesz Medal
     Reiner Rummel
   - 2.6. John Dalton Medal
     James C.I. Dooge
   - 2.7. Fridtjof Nansen Medal
     Jean-Francois Minster
   - 2.8. Vilhelm Bjerknes Medal
     Arnt Eliassen
   - 2.9. Milutin Milanković Medal
     Syukuro Manabe
   - 2.10. Hannes Alfvén Medal
     Charles F. Kennel (for 1997)
     Carl-Gunne Fälthammar (for 1998)
3. Plenary Meeting

   Inauguration of the EGS President and the newly elected Section Presidents, 1998-2000
4. Society Lecture

   Heinrich Wänke: *Recent Studies of Planet Mars*

These events are followed by the Icebreaker Reception on Level 2, AGORA2 and MYKONOS AREA and by the President's Dinner in the Hotel Negresco for the 1998 Awardees and Medalists, respectively.

Invitation to the Open Section & IWG Meetings
Wednesday, 22 April 1998, 12.00-14.00

Meeting Rooms

R10	=	Solid Earth Geophysics (SE)	M8	=	Solar-Terrestrial Sciences (ST)
R5	=	Geodesy (G)	M5	=	Planetary & Solar System Sciences (PS)
Gallieni3	=	Hydrological Sciences (HS)	M3	=	Nonlinear Processes (NP)
Clio	=	Oceans & Atmosphere (OA)	R1	=	Natural Hazards (NH)

1. Welcome and Introduction by the President/ Chairman
2. Agenda
3. Report on Society and Section/IWG Activities
4. Scientific Programme for the General Assembly 1999
5. Suggestions for the Millennium Conference
6. Candidates for President 2000-2002
7. Additional Sub-Sections/Sub-Groups or IWGs.
8. Section Medal(s) and appropriate candidates for 1999.
9. Candidates for Society Awards 1999.
10. New topical journals or other publications.
11. Nomination of editors as required.
12. Any other business.

Sandwiches & Refreshments are complimentary

European Geophysical Society

Inviting the scientists of the world to participate in the

Millennium Conference on Earth, Planetary & Solar Systems Sciences

- 25th General Assembly -

Fortezza da Basso, Florence, Italy
3-7 April 2000

Join this unique celebration of the past and the new millennium in the capital of Renaissance and in the beauty of Tuscany.

Suggestions regarding the scientific programme and any inquiries should be addressed to:

EGS Office
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

Tel: +49-5556-1440
Fax: +49-5556-4709
EGS@COPERNICUS.ORG
http://www.copernicus.org/EGS/EGS.html

1998 Membership Rates

Annales Geophysicae *(12 issues/year)*
The leading interdisciplinary, boundary-layer journal covering the physics and chemistry of the oceans, of the lower, middle and upper atmosphere of the Earth, of the Sun and of the interplanetary medium, as well as the marine boundary layer and the air-sea interface, the interface between the atmosphere and the biosphere, lithosphere, hydrosphere, ionosphere and magnetosphere and solar-terrestrial interaction.

Subscription Rate			Postage Surcharge
Member	DEM	150,-	incl.
Student	DEM	75,-	incl.
Em. Sc.	DEM	75,-	incl.

Climate Dynamics *(8 issues/year)*
Welcomes papers containing original diagnostic, analytical or numerical modeling research on the structure and behavior of the atmosphere, oceans, cryosphere, biomass and land surface as interacting components of the dynamics of global climate as well as contributions focused on selected aspects of climate dynamics on particular scales of space or time.

Subscription Rate			Postage Surcharge
Member	DEM	98,-	Surface mail: DEM 34,-
Student	DEM	98,-	Airmail (outside
Em. Sc.	DEM	98,-	Europe) DEM 53,-

Geophysical Journal International *(12 issues/year)*
Covers all disciplines of the physics and chemistry of the solid earth.

Subscription Rate			Postage Surcharge
Member	DEM	150,-	incl.
Student	DEM	55,-	incl.
Em. Sc.	DEM	55,-	incl.

Hydrology and Earth System Sciences *(4 issues/ year)*
The international and interdisciplinary journal for the publication of original research in hydrology, viewed as a separate geoscience alongside the atmospheric, ocean and solid earth sciences. HESS serves not only the community of scientific hydrologists, but all geoscientists who wish to publish new findings on the interactions between hydrology and other physical, chemical and biological processes within the Earth System.

Subscription Rate			Postage Surcharge
Member	DEM	140,-	Airmail (outside
Student	DEM	140,-	Europe) DEM 16,-
Em. Sc.	DEM	140,-	

Journal of Atmospheric Chemistry *(9 issues/year)*
The key journal for the study of the chemistry of the Earth's atmosphere with emphasis on the region below about 100 km, including also topics related to meteorology, oceanography, soil science and biology.

Subscription Rate			Postage Surcharge
Member	DEM	240,-	incl.
Student	DEM	240,-	incl.
Em. Sc.	DEM	240,-	incl.

Journal of Geodynamics *(8 issues/year)*
The interdisciplinary journal for solid earth research in geodetic, geophysical, geological and geochemical geodynamics, in particular of large scale processes.

Subscription Rate			Postage Surcharge
Member	DEM	110,-	incl.
Student	DEM	110,-	incl.
Em. Sc.	DEM	110,-	incl.

Newsletter *(4 issues/year)*
EGS's quarterly bulletin carrying articles on the results of recent research, upcoming meetings, as well as Society's news.

Subscription Rate	Postage Surcharge
included in membership due.	incl.

Nonlinear Processes in Geophysics *(4 issues/ year)*
An interdisciplinary journal published jointly by the EGS and the AGU for the publication of original research involving nonlinear processes in geophysics in the broadest sense. Contributions from both dynamical system theorists as well as geophysicists applying nonlinear methods to fundamental problems in geophysics are welcome.

Subscription Rate			Postage Surcharge
Member	DEM	80,-	Surface mail: DEM 16,-
Student	DEM	40,-	Airmail (outside
Em. Sc.	DEM	40,-	Europe) DEM 32,-

Physics and Chemistry of the Earth *(thematic issues)*
For the publication of short, self-contained and refereed papers presented at geo- and planetary sciences' conferences.

Subscription Rate			Postage Surcharge
Member	DEM	195,-	incl.
Student	DEM	195,-	incl.
Em. Sc.	DEM	195,-	incl.

Planetary and Space Science *(12 issues/year)*
The key journal for planetary and solar system research, covering cosmochemistry and the origin and evolution of the solar system; small bodies, dust and rings; terrestrial and outer planets and their satellites, including geology, mineralogy, geophysics and dating as well as the formation and dynamics of planetary atmospheres, ionospheres and magnetospheres and their interaction with the solar wind; exobiology and celestial mechanics.

Subscription Rate			Postage Surcharge
Member	DEM	165,-	incl.
Student	DEM	165,-	incl.
Em. Sc.	DEM	165,-	incl.

Surveys in Geophysics *(6 issues/year)*
Up to date summaries of research in all the disciplines covered by the Society. Subscribers are kept informed also of the subjects outside their own specialties.

Subscription Rate			Postage Surcharge
Member	DEM	165,-	incl.
Student	DEM	165,-	incl.
Em. Sc.	DEM	165,-	incl.

Tectonics *(6 issues/year)*
Includes papers on the deformation of the crust, including mountain building, rifting, seismotectonics, movements of terranes, and plate interactions, as well as contributions in the areas of analytical, synthetic and integrative tectonics.

Subscription Rate			Postage Surcharge		
Member	DEM	145,-	Surface:	DEM	36,-
Student	DEM	75,-	Airfreight:	DEM	85,-
Em. Sc.	DEM	75,-	Airmail:	DEM	150,-

Free Membership

It is a tradition of the European Geophysical Society that participants in its General Assemblies having registered at the Full/Student Non EGS Membership Rates are automatically recognized as Regular/Student Members of the Society for the year of the meeting, respectively.

For the 1998 General Assembly, appropriate pre-registrants should have already received their blue 1998 Membership Cards, while the on-site registrants will receive theirs shortly after the conference. Moreover, they are invited to enjoy the benefits of membership and take a personal subscription to the 10 official journals of the EGS at the greatly reduced membership rates listed on the left hand page.

1998 Membership Subscription

Name Badge _____

_____

_____

Membership-ID No. (if available) _____

Journal(s)/Rate(s)/Surcharge(s) _____

_____

_____

_____

Total amount DEM _____

❒ Cash at the Registration Desk

❒ By cheque

❒ By credit card

- ❒ Eurocard/Mastercard/Access
- ❒ VISA
- ❒ American Express

Number: _____

Valid until: _____

Cardholder: _____

Date: _____

Signature: _____

Free Personal Subscription

Participants in the 1998 General Assembly of the European Geophysical Society that have pre-registered/registered at the full **ON-SITE EGS MEMBER/NON EGS MEMBER RATES** are eligible for a **FREE ANNUAL PERSONAL SUBSCRIPTION** to one of the following EGS journals (Please tick only one journal per registration):

❒ *Annales Geophysicae*

❒ *Hydrology and Earth System Sciences*

❒ *Nonlinear Processes in Geophysics*

Appropriate attendees that would like to use this offer should complete this form and return it to the EGS Office by **31 May 1998** at the very latest.

Name: _____

Address: _____

_____

_____

_____

_____

Amount paid: _____

EGS Office
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

Tel: +49-5556-1440
Fax: +49-5556-4709
E-mail: EGS@COPERNICUS.ORG
http://www.copernicus.org/EGS/EGS.html

EGS Job Centre

In order to promote the mobility of researchers in the Earth, planetary and space sciences on a pan-European international level in positions in academic institutions, in research organizations and in industry, the European Geophysical Society has established a *Job Centre* at its annual General Assembly where colleagues seeking employment and representatives of organizations and companies announcing vacancies can meet and exchange information. These facilities are available only at the conference and they are complimentary for both sides!

Companies and Organizations announcing a vacancy

A company or an organization announcing a vacancy is kindly asked to deliver to the Job Centre at the meeting or to the EGS Office shortly before the meeting

- a completed *Employer Registration Form* (one form for each position) and
- at least 5 copies of the announcement of the position in question.

The staff at the EGS Job Centre will assign one individual *Employer Number* to each position offered and will post one copy of the announcement or description on the *Message Board*, arranged according to the EGS Sections, and include the other copies in the respective *Employer Folder*.

Candidates seeking a position

Candidates seeking a position are kindly asked to personally bring to the Job Centre

- a completed *Job Centre User Survey* form, and
- about 5 copies of their résumé or CV.

The staff at the EGS Job Centre will assign one individual *Job Centre Number* to each set of résumés/CVs and will then include them in the appropriate *Résumé Folders*, arranged according to the EGS Sections. Only résumés of candidates actually present at the meeting will be considered.

Guidelines for Employers and Candidates

Interested candidates should look through the postings on the *Message Board* and either contact the "Employer" directly, if a representative of the organization or company in question is **not** available for an interview during the conference, or otherwise, complete the *Candidate Message Form* and contact the desk of the Job Centre; here the form will be inserted in the corresponding *Employer Folder*. The representative will then find an appropriate notice on the *Message Board*, contact his/her folder and find the candidate's résumé or information regarding the date, time and place of a personal meeting with the candidate.

"Employers" are invited to look through the *Résumé Folders*, arranged according to the EGS sections, containing the résumés of candidates seeking a position. If an appropriate candidate has been identified, the "Employer" is asked to complete the *Employer Message Form* and to contact the desk of the Job Centre; here the form will be inserted in the corresponding *Résumé Folder*. The respective candidate will then find an appropriate notice on the *Message Board*, contact his/her résumé folder and find the information about the date, time and place of a personal meeting with the representative of the company or organization in question or its address for further contact.



XXIII General Assembly
Job Centre

AGORA1 - Level 1, behind the Congress Counter

Monday-Friday, 20-24 April 1998, 08.00-18.00

Look through the announcements at the ***Job Postings' Boards***, contact the ***Message Board*** at the Job Centre or contact its staff. Please, pick up your resumés/CVs before leaving the conference!

European Geophysical Society
EGS Office Tel: (49)-5556-1440
Max-Planck-Str. 13 Fax: (49)-5556-4709
37191 Katlenburg-Lindau EGS@COPERNICUS.ORG
Germany http://www.copernicus.org/EGS/EGS.html

Employer Registration Form

Any company or organization wishing to announce a vacancy at the Job Centre of the General Assembly of the European Geophysical Society is kindly asked to deliver to the Job Centre at the meeting or to the EGS Office about one week before the meeting

- a completed *Employer Registration Form* (see reverse side), and
- at least 5 copies of the announcement/description of the position in question.

The staff at the EGS Job Centre will assign an individual *Employer Number* to this offer, post one copy of the announcement on the *Message Board*, where interested candidates will see it, and include the other copies in the *Employer Folder*.

Interested candidates will contact you directly, if a representative of your company or organization will not be available for an interview at the meeting; otherwise, they will leave you a message in your folder at the Job Centre. Please check the Job Centre *Message Board* daily so that you will not miss the opportunity to meet with prospective employees.

Please, look also through the *Résumé Folders* containing the résumés/CVs of candidates seeking a position. They are at the Job Centre for your use.

Remember your *Employer Number* to pick up messages.

EGS Job Centre

Employer Number
E 1997/

.....

Employer Registration Form

(please complete one form for each vacancy)

1. Contact Address

Company _____

P.O. Box/Street _____

Zip Code _____ City _____ Country _____

Contact Person _____ Department _____

Telephone _____ Telefax _____

Electronic Mail _____ Telex _____

2. Category

Please mark the category/categories you would like your announcement/description posted:

- ❒ Solid Earth Geophysics & Geology
- ❒ Geodesy
- ❒ Hydrology
- ❒ Oceanography
- ❒ Atmospheric Sciences
- ❒ Space & Planetary Sciences
- ❒ Geotechnical & Environmental Engineering
- ❒ Information Technology, Software Development & System Administration

3. Questionnaire

YES	NO	
❒	❒	Will you be reviewing the Résumés Folders?
❒	❒	Will you be available for an interview at the meeting?
		If you answered YES, when will you be available?
		Day: _____ Time: _____

Please bring this completed form together with at least 5 copies of the announcement/description of the vacancy in question to the Job Centre at the EGS General Assembly or mail the material to the EGS Office by at least 1 week prior to the meeting.

EGS Office
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

Tel: +49-5556-1440
Fax: +49-5556-4709
EGS@COPERNICUS.ORG

European Geophysical Society
EGS Office Tel: (49)-5556-1440
Max-Planck-Str. 13 Fax: (49)-5556-4709
37191 Katlenburg-Lindau EGS@COPERNICUS.ORG
Germany http://www.copernicus.org/EGS/EGS.html

Job Centre User Survey Form

Candidates seeking a position are kindly asked to bring to the Job Centre of the General Assembly of the European Geophysical Society

- a completed *Job Centre User Survey* form (see reverse side), and
- about 5 copies of their résumé or CV of max. 4 pages each.

The staff at the EGS Job Centre will assign one individual *Job Centre Number* to your set of résumés/CVs and will then include them in the appropriate Résumé Folders. Only résumés of candidates actually present at the meeting will be considered.

Employers have access to your résumés at all times during the meeting. Please check the Job Centre *Message Board* daily so that you will not miss the opportunity to meet with prospective employers.

Please, look also through the job postings and take action. If you have an interest in a job announcement, leave a message through the Job Centre Message Board.

Remember your *Job Centre Number* to pick up messages.

EGS Job Centre

Job Centre Number
C 1997/
.....

Job Centre User Survey

(this form will be attached to your résumé material)

1. Personal Information

Male ❒ Female ❒ Age _____ Nationality _____

Highest degree attained/in progress _____ Year attained/expected _____

Currently employed as _____ at _____

Educational status (ascending in time)

degree/position	year attained	University/Company

2. Job Search Information

Please mark the category/categories you would like your résumé placed:

❒ Solid Earth Geophysics & Geology
❒ Geodesy
❒ Hydrology
❒ Oceanography
❒ Atmospheric Sciences
❒ Space & Planetary Sciences
❒ Geotechnical & Environmental Engineering
❒ Information Technology, Software Development & System Administration

Type of job you are looking for:

Temporary:
❒ Research Post-doc
❒ Lecturer/Teacher
❒ Contract Employee (Project)
❒ Academia (Teaching)

Other: _____

Permanent:
❒ Industry
❒ Research
❒ Teaching
❒ University
❒ Technical
❒ Administrative
❒ Government

Other: _____

3. Personal Statement

Conference Publications

Conference Publications

EGS offers a complete and comprehensive set of different types of publications for contributions presented at EGS General Assemblies and Topical Conferences as well as at meetings organized by any other side. This includes the publication of

- ***abstracts*** in the journal *Annales Geophysicae Supplement*,
- ***proceedings*** in form of short but self-contained, refereed articles in separate thematic issues of the journal *Physics and Chemistry of the Earth*,
- ***letters***, ***short communications*** and ***extended articles*** as separate papers in or in special issues of 10 topical EGS journals,
- ***independent chapters*** in books issued as part of the four EGS Book Series.

Contact the EGS Office for any further information.

Book of Abstracts

Traditionally all abstracts of contributions submitted to a General Assembly are included free of charge in the Book of Abstracts, once they have been accepted by the appropriate Convener(s). This includes also papers of authors who most likely will be unable to participate in the meeting because of financial restrictions.

Moreover, in order to guarantee a wider circulation, the Book of Abstracts is published as a supplement of the Society's journal *Annales Geophysicae*.

In this way the Book of Abstracts has become an open forum for fast distribution of results of geophysical research on a pan-European, international level.

The abstracts of the various symposia are compiled in four separate parts:

Part I: Society Symposia, Solid Earth Geophysics and Geodesy.

Part II: Hydrological Sciences and Oceans & Atmosphere.

Part III: Solar-Terrestrial, Planetary & Solar System Sciences.

Part IV: Nonlinear Processes in Geophysics and Natural Hazards

Abstracts of symposia sponsored by two different Sections are included twice in the appropriate volumes, respectively. Participants that have registered at the full meeting rate will receive **one part** of their choice together with the registration material.

Proceedings

General Information

Physics and Chemistry of the Earth is the official EGS journal for the publication of contributions presented at the EGS General Assemblies in form of short but self-contained, refereed articles of 4-6 camera-ready pages for contributed and 10-12 camera-ready pages for solicited papers including figures and tables at no page or handling charges and 25 free off-prints for authors. Papers will be published in thematic issues, which will be made available to authors and EGS members at a special discount rate of 15,- Pounds Sterling per normal issue.

Solicited papers published in the conference proceedings may not be published elsewhere. Contributed papers, however, may be published in an extended form elsewhere.

***Attention*: Only papers actually presented at the EGS conference and belonging to a Session for which the publication of proceedings is foreseen are eligible for publication in the proceedings journal!**

Session Editors and Referees

The Conveners of the individual events decide by themselves on the publication of "proceedings" and nominate appropriate Editors, who will then be responsible for the evaluation of a set of about 5-10 papers each and who will appear as *Guest Editors* of their respective thematic issues. The Editors, in turn, nominate the Reviewers - two for each paper; thereby, Conveners, Co-Conveners, Editors, speakers and co workers in their own institutes may serve as referees, eventually also of several papers:

- Conveners are responsible to forward the names and coordinates of their Editors and
- Editors are responsible to forward the names and coordinates of their Referees

to the *PCE Editorial Office* either at the General Assembly or at the EGS Office, respectively.

Call for Publication

Authors were informed by the EGS Office about the acceptance and schedule of their contributions submitted to a General Assembly. In addition, authors automatically received a notice regarding the publication of "proceedings" of their event:

I. publication of "proceedings" for your event is foreseen, please deliver 4 copies of your manuscript to the *Editorial Office* at the conference

II. publication of "proceedings" for your event will finally be decided at the meeting

III. publication of "proceedings" for your event is not foreseen.

Detailed guidelines for the preparation of manuscripts were included on the reverse side of each letter.

Category I is chosen, if the Conveners have returned their questionnaire together with the names of editors by the deadline date. Category II is selected, if the Conveners have indicated the publication of proceeding, however have not returned their questionnaire together with the names of editors to the EGS Office in time. Finally Category III is taken, if the Conveners did not wish to publish proceedings for their session.

Category I Procedure

Conveners and Editors mutually agree on which Editor will be responsible for which set of papers of their session . They then inform the *Editorial Office* at the meeting correspondingly, and each Editor receives his/her set of **3 copies of each paper**, while the 4th copies of all papers are kept by the *Editorial Office* for reference purposes. Each Editor then distributes his/her copies to the Reviewers of his/her own choice, hereby each copy **must** be accompanied by the **Guidelines & Check-List for Reviewers** with his/her name and address included by himself/herself! Moreover, each Editor must reserve one copy of the **Editor's Report Form** for each paper, respectively.

In the case that an author has not delivered his/her manuscript at the meeting, he/she may do so within **max. 3 weeks after the meeting** by mailing 3 copies of the manuscript directly to the corresponding Editor and one copy to the EGS Office.

Each paper must carry its own personal manuscript number (MS-No.), which is included in the event programme on the left hand side of the corresponding author-and-title block.

Category II/III Procedure

If during the assembly both the authors and the Conveners of a session come to the conclusion to publish "proceedings", the Conveners should nominate Editors and mutually decide with them which Editor will be responsible for which set of papers. The Conveners should then inform the *Editorial Office* at the meeting correspondingly and agree on the deadline for submission of manuscripts (in general 3-4 month after the meeting). The *Editorial Office* will then inform all session authors in writing and include the name and address of the Editor to whom manuscripts should be submitted, the manuscript number (MS-No.) as well as the guidelines for preparing manuscripts for PCE.

Evaluation Procedure

Guidelines for Reviewers and Editors are included on the Check-Lists for Reviewers and on the Editor's Report forms, respectively.

Referees have to review their papers and to send their reports/corrected manuscripts together with the corresponding Check-Lists to their appropriate Editors before their deadline dates.

Editors have to evaluate their papers based on the referees' comments and on their own judgement and they have to send their reports together with the corresponding Editor's Report Form and the entire documents received by the reviewers to the EGS *Editorial Office* before their deadline dates.

The *Editorial Office* will contact the authors, forward the "Guidelines for Camera Ready Submission" and the "Additional Offprint/Thematic Issue Order Form", monitor the submission and the quality of camera ready manuscripts, compile the thematic issues, and forward all material to the publisher.

EGS Journals

Following the tradition of other leading scientific organizations, the EGS expects that authors consider the Society's journals for the publication of their contribution to the EGS General Assembly in an extended form as a single manuscript or as part of a "special" issue.

All journal papers undergo rigorous peer review and careful copy-editing by competent colleagues prior to publication.

There are no page nor handling charges and reprints are, in general, free for authors in all EGS journals. Rapid publication and distribution worldwide, moderate library subscription rates and greatly reduced membership subscription rates are guaranteed.

Annales Geophysicae *(12 issues per year)*
The leading interdisciplinary, boundary-layer journal covering the physics and chemistry of the oceans, of the lower, middle and upper atmosphere of the Earth, of the Sun and of the interplanetary medium, as well as the marine boundary layer and the air-sea interface, the interface between the atmosphere and the biosphere, lithosphere, hydrosphere, ionosphere and magnetosphere and the interaction at solar-terrestrial boundary layers.

Please send your manuscript to the Editorial Office:

Mrs. Sylviane Perret
Editorial Assistant AG
CESR-CNRS-UPS
B.P. 4346
31029 Toulouse Cedex
France

Tel.: +33-61-558370
Fax: +33-61-556535
anngeo@cesr.cnes.fr

Climate Dynamics *(8 issues per year)*
Welcomes papers containing original diagnostic, analytical or numerical modeling research on the structure and behavior of the atmosphere, oceans, cryosphere, biomass and land surface as interacting components of the dynamics of global climate as well as contributions focused on selected aspects of climate dynamics on particular scales of space or time.

Please send your manuscript to the EGS Editor:

Dr. Lydia Dümenil
MPI für Meteorologie
Bundesstr. 55
20146 Hamburg
Germany

Tel.: +49-40-41173-310
Fax: +49-40-41173-366
dumenil@dkrz.d400.de

Geophysical Journal International *(12 issues per year)*
Covers all disciplines of the physics and chemistry of the solid earth.

Please send your manuscript to the EGS Editor:

Prof. Roberto Sabadini
Dept. of Earth Sciences
Section of Geophysics
Universita di Milano
via L. Cicognara 7
20129 Milano
Italy

Tel.: +39-2-2369-8400
Fax: +39-2-7490-588
bob@sabadini.geofisica.unimi.it

Hydrology and Earth System Sciences *(4 issues per year)*
For original research in hydrology, viewed as a geoscience, and on the interaction between hydrology and other physical, chemical and biological processes within the Earth System. Papers on theory and modelling, experiment or instrumentation in form of regular length articles, brief communications (letters) or commentary are welcome.

Please send your manuscript to the Managing Editor:

Dr. James S.G. McCulloch
Burcot Tower
Abingdon
Oxon, OX14 3DJ
United Kingdom

Tel: +44-1865-407770
Fax: +44-1865-407770
jsgmhess@aol.com

Journal of Atmospheric Chemistry *(9 issues per year)*
The key journal for the study of the chemistry of the Earth's atmosphere with emphasis on the region below about 100 km, including also topics related to meteorology, oceanography, soil science, biology and microbiology.

Please send your manuscript to:

Editorial Office
Kluwer Academic Publishers
P.O. Box 17
3300 AA Dordrecht
The Netherlands

Tel.: +31-78-6392-146/203
Fax: +31-78-6391-254
ampdejong@wkap.nl

Journal of Geodynamics *(8 issues per year)*
The interdisciplinary journal for solid earth research in geodetic, geophysical, geological and geochemical geodynamics, with special emphasis on the large scale processes.

Please send your manuscript to the EGS Chief Editor:

Prof. Dr. Wolfgang R. Jacoby
Department of Earth Sciences
Johannes Gutenberg Universität
Saarstr. 21
55122 Mainz
Germany

Tel.: +49-6131-393-223
Fax: +49-6131-394-769
jacoby@mzdmza.zdv.uni-mainz.de

Nonlinear Processes in Geophysics *(4 issues per year)*
An interdisciplinary journal published jointly by the EGS and the AGU for the publication of original research involving nonlinear processes in geophysics in the broadest sense. Contributions from both dynamical system theorists as well as geophysicists applying nonlinear methods to fundamental problems in geosciences are welcome.

Please send your manuscript to:

EGS Office
c/o NPG
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

Tel.: +49-5556-1440
Fax: +49-5556-4709
egs@copernicus.org

Planetary and Space Science *(12 issues per year)*
The key journal for planetary and solar system research, covering cosmochemistry and the origin and evolution of the solar system; small bodies, dust and rings; terrestrial and outer planets and their satellites, including geology, mineralogy, geophysics and dating as well as the formation and dynamics of planetary atmospheres, ionospheres and magnetospheres and their interaction with the solar wind; exobiology and celestial mechanics.

Please send your manuscript to:

EGS Office
c/o PSS
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

Tel.: +49-5556-1440
Fax: +49-5556-4709
egs@copernicus.org

Surveys in Geophysics *(6 issues per year)*
Up to date summaries of research in all the disciplines covered by the Society. Subscribers are kept informed also of the subjects outside their own specialties.

Please send your manuscript to:

Editorial Office
Kluwer Academic Publishers
P.O. Box 17
3300 AA Dordrecht
The Netherlands

Tel.: +31-78-6392-280/235
Fax: +31-78-6392-254
judy.bothof@wkap.nl

Tectonics *(6 issues per year)*
Includes papers on the deformation of the crust, including mountain building, rifting, seismotectonics, movements of terranes, and plate interactions, as well as contributions in the areas of analytical, synthetic and integrative tectonics.

Please send your manuscript to:

EGS Office
c/o Tectonics
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

Tel.: +49-5556-1440
Fax: +49-5556-4709
egs@copernicus.org

Physics and Chemistry of the Earth

Aims and Scope

Physics and Chemistry of the Earth (*PCE*) is an international interdisciplinary journal for fast publication of collections of short, but self-contained, refereed communications in geology, geochemistry, geophysics, hydrology, oceanography and atmospheric, planetary and space sciences in separate thematic issues. The collections may include papers presented at scientific meetings (*proceedings*) or articles on a well defined topic compiled by individual editors or organizations (*special publication*). *Physics and Chemistry of the Earth* intends to fill the lacuna between the publication of "abstracts" and of "extended articles", respectively. Publication in *Physics and Chemistry of the Earth* does not depend on any kind of sponsorship by the European Geophysical Society.

Editorial Policy

Organizers of events or of special publications are invited to consider *Physics and Chemistry of the Earth* (*PCE*) for the publication of communications concentrating on new theoretical or observational results or instrumental techniques in the form of short, but self-contained, refereed articles with the following features:

- no costs for the organizer
- appointment of guest editors by the organizer, subject to approval by the PCE Editorial Board
- appointment of reviewers by the guest editors and organizers
- assistance of editors and authors by a professional PCE Editorial Office
- detailed guidelines and LaTeX macros for final camera ready submission
- publication within less than 6 months after submission of all accepted articles in camera ready form
- no page or handling charges for authors
- 25 free offprints for authors; additional offprints at special rates can be ordered when submitting the camera ready manuscript
- free inclusion of half-tone illustrations and US$ 576,- per page for colour illustrations
- inclusion of all articles in a separate thematic issue, which may be purchased by authors, referees, event participants and EGS Members at the special rate of GBP 15,- per standard issue (which may even be included in the event registration fee); editors and guest editors will receive complimentary copies
- publication in an internationally respected scientific journal abstracted/indexed in Chemical Abstracts/ INSPEC, with 8 issues for 1997 at an annual subscription rate of NLG 169,- for EGS Members and a circulation of 49.8% (North America), 28.9% (Europe), 17.0% (Australia and Asia) and 4.3% (Middle East, Africa and South America).

Editors

Editorial Office

A.K. Richter (Executive Editor)
B. Rauchalles (Editorial Assistant)
EGS Office
Physics and Chemistry of the Earth
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany
Tel: +49-5556-1440
Fax: +49-5556-4709
E-mail: EGS@COPERNICUS.ORG
http://www.copernicus.org/EGS/EGS.html

Editors

N. Balling
Solid Earth Geophysics (SE)
University of Aarhus
Denmark

H.-P. Plag
Geodesy (G)
Universität Kiel
Germany

H.H.G. Savenije
Hydrological Sciences (HS)
IHE Delft
The Netherlands

J.A. Johnson
Oceans and Atmosphere (OA)
University of East Anglia
Norwich, UK

P. Fabian
Solar-Terrestrial Sciences (ST)
Universität München
Freising-Weihenstephan
Germany

F.W. Taylor
Planetary and Solar System Sciences (PS)
University of Oxford
Oxford, UK

P.L. Read
Nonlinear Processes in Geophysics (NP)
University of Oxford
Oxford, UK

S. Tinti
Natural Hazards (NH)
University of Bologna
Italy

Physics and Chemistry of the Earth

Editorial Office
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

Tel: (49)-5556-1440
Fax: (49)-5556-4709
EGS@COPERNICUS.ORG
http://www.copernicus.org/EGS/EGS.html

Guidelines for Editors

Dear Editor,

Thank you for serving as an Editor for the enclosed manuscript for which you have received 3 copies together with one copy of the Editor's Report form and two copies of the Check-List for Reviewers.

Please check, first of all, whether the Manuscript Number (MS-No.), the title and the name(s) of the author(s) have been correctly entered on these 3 forms. Second, please include the deadline date (in consultation with the Organizer of the event/special publication) in your Editor's Report form by which you will have submitted the results of your final evaluation to the Editorial Office; in general, this should not be later than a maximum of 3 months after you have received the manuscript. Third, please subtract the time you will need to evaluate the paper based on the reviewers' comments (max. 1 month) and include the (earlier) deadline date for the reviewing procedure for the referees on the two Check-Lists for Reviewers; reviewers must submit their comments before this date to you, their Editor; when necessary, remind your reviewer(s) accordingly.

Please select now two appropriate independent reviewers and provide them with their copies of the manuscript and the Check-List, respectively. If you will serve as one of the reviewers, we invite you to make comments for the authors on separate sheets and/or on the manuscripts. If you wish to consult colleagues of your laboratory about these papers, we trust that the authors' interests will be respected. Your name will be communicated to the publisher for inclusion as "Guest Editor" in the special issue. As a guideline, each paper should be short but self-contained, concentrating on new results or experimental techniques or theories.

Once the reviewers of the manuscript have been selected, you are kindly asked to include this information into the "List of Reviewers". Please forward this list as soon as possible to the Editorial Office for filing and tracking purposes. You may also return this form after you have included all papers that will be evaluated by you.

After you have studied the manuscript and the report(s) of the reviewer(s), please decide about the suitability of the manuscript for publication in the special issue according to one of the following categories:

I. In principle, the paper is acceptable and the author(s) may submit it in camera ready form directly to the Editorial Office
II. You would like to see the author act on the comments of the reviewer(s) and of yourself first, before you make a final decision. Please inform the author by using the form "Request for Revision", accept the revised manuscript and decide as included in the Editor's Report from. A maximum of 1 additional month is allowed for this additional procedure (minor revision).
III. The manuscript needs a major revision and must be reviewed again. In general, manuscripts in this category will not be included in the special issue but rather in a later general one in order not to delay the publication of the special issue.
IV. The manuscript is not acceptable.

Please forward all forms and items regarding the evaluation of the manuscript to the Editorial Office as soon as possible but by the deadline date at the latest. The Editorial Office will contact the author(s) and monitor the submission of the camera ready or substantially revised manuscript. Manuscripts that have not been reviewed by at least two independent persons, or that are delivered after their evaluation to the Editorial Office much later than by the deadline date, will not be included in the special thematic issue but rather in a later general one. This will also hold for papers for which authors extend the deadline for camera ready submission substantially by more than 1 month. Editors will be informed accordingly by the Editorial Office.

Finally, I would like to thank you very much for your assistance which is essential in producing a journal of high standard. In recognition of your work you will receive a complimentary copy of the special issue.

Yours sincerely,

Arne K. Richter
Executive Editor

Physics and Chemistry of the Earth

Editorial Office
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

Tel: (49)-5556-1440
Fax: (49)-5556-4709
EGS@COPERNICUS.ORG
http://www.copernicus.org/EGS/EGS.html

Editor's Report

Editorial Office
Physics and Chemistry of the Earth
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany
Fax: +49-5556-4709

Meeting:
MS-No.:
Title:

Author(s):

Please forward appropriate items together with this completed editor's report and the report(s) and check-lists of the reviewer(s) you received to the Editorial Office by the deadline date .....

1. Editor's Suggestions to the Author *(please mark accordingly)*

❒ on (a) separate sheet(s) ❒ in the manuscript

2. Evaluation

After having studied the manuscript myself and the report(s) of the reviewer(s)/the revised version of the manuscript, I conclude as follows:

❒ The manuscript is acceptable as it is, and the author may submit it directly in camera-ready form.

❒ The manuscript is acceptable with a few corrections, and the author may submit the corrected version directly in camera-ready form.

❒ The manuscript needs some revision, however the author may submit the revised manuscript directly in camera-ready form.

❒ The manuscript needed some revision and I contacted the author to submit a revised manuscript for final approval:

- ❒ The enclosed revised manuscript is now acceptable as it is,
- ❒ The enclosed revised manuscript is acceptable with a few corrections in accordance to my attached comments,

and the author may submit the revised (and corrected) version directly in camera-ready form.

❒ The manuscript needs major revision and must be reviewed again.

- ❒ In order not to delay the publication of the special issue, the paper should be included in a later general issue.
- ❒ The paper should be included in the special issue, if the author is able to submit the revised version within 1 month.

❒ The manuscript is not acceptable in its present form.

Date: ..... Name/Signature: .....

Physics and Chemistry of the Earth

Editorial Office
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

Tel: (49)-5556-1440
Fax: (49)-5556-4709
EGS@COPERNICUS.ORG
http://www.copernicus.org/EGS/EGS.html

Guidelines for Reviewers

Dear Referee,

Thank you for serving as a reviewer for the enclosed manuscript, which you have received together with the Check-List for Reviewers from the Meeting Organizer/Editor or the Organizer/Editor of a Special Publication of the above journal.

Please check, first of all, whether the Manuscript Number (MS-No.), the name and address of the Editor to whom your report must be sent, and the deadline date before which you must deliver your report to your Editor have been correctly inserted on your Check-List on the reserve side.

We would appreciate if you could give your Editor your opinion as to the suitability of the manuscript for publication in the journal *Physics and Chemistry of the Earth*. For each paper separately a check list is on the reverse side to help you in this critical evaluation.

We invite you to make comments for the authors on separate sheets and/or on the manuscripts. If you wish to consult colleagues of your laboratory about the paper, we trust that the authors' interests are respected. Your name will not be communicated to the authors. As a guideline, each paper should be short but self-contained, concentrating on new results or experimental techniques or theories.

Please send the completed check list and your report to your Editor before the deadline date. He/She will evaluate each paper based on your and on his/her own opinion and will then inform the Editorial Office correspondingly. Manuscripts that have not been reviewed by at least two independent persons, or that are delivered too late, will not be considered for publication in the special issue but rather in a later general one.

If you are neither an author nor an EGS member we would like to offer the special issue for which you have served as a reviewer at a reduced subscription rate. Please contact the Editorial Office if you wish to purchase a copy.

Thank you very much for your advice which is an essential ingredient in producing a journal of high standard.

Yours sincerely,

Dr. Arne K. Richter
Executive Editor

Physics and Chemistry of the Earth

Editorial Office
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

Tel: (49)-5556-1440
Fax: (49)-5556-4709
EGS@COPERNICUS.ORG
http://www.copernicus.org/EGS/EGS.html

Check-List for Reviewers

Name & Address of Editor:

Meeting:
MS-No. :
Title :

Author(s):

Please forward appropriate items together with this completed check-list to the Editor before .....

1. General Information *(please mark accordingly)*

Question	Yes	No
Does the paper contain new data or new ideas or both of them?		
Are these up to international standards?		
Is the presentation clear?		
Does the author reach substantial conclusions?		
Is the length of the paper adequate?		
Is the language fluent and precise?		
Are the title and the abstract pertinent and understandable?		
Is the size of each figure adequate to the quantity of data it contains?		
Does the author give proper credit to related work and does he/she indicate clearly his/her own contribution?		

2. Reviewer's Suggestions to the Author *(please mark accordingly)*

❒ on (a) separate sheet(s) ❒ in the manuscript

3. Recommendation to the Editor *(please mark appropriate item)*

❒ The manuscript is acceptable as it is.
❒ The manuscript is acceptable with a few corrections.
❒ The manuscript will be acceptable after (some) revision.
❒ The manuscript may become acceptable after major revision and must be reviewed again;
  ❒ I would be willing to review the paper again. ❒ I would not be willing to review the paper again.
❒ The manuscript is not acceptable.

Date: ..... Name/Signature:.....

Physics and Chemistry of the Earth

Editorial Office
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

Tel: (49)-5556-1440
Fax: (49)-5556-4709
EGS@COPERNICUS.ORG
http://www.copernicus.org/EGS/EGS.html

To:

.....
.....
.....
.....
.....

From:

.....
.....
.....
.....
.....

Request for Revision

Dear Colleague,

Please find enclosed the report(s) of the reviewer(s) of your contribution

MS-No.: ..... Author(s): .....

ShortTitle:.....

A revision along the line(s) of the referees' comments is required prior to publication.

Please revise your manuscript accordingly and submit **two copies** within the **next 4 weeks** after the receipt of this information to the address shown above on the right-hand side. After the revised manuscript has been reviewed, you will be informed about its final acceptance for publication by the Editorial Office.

In order to guarantee the publication of the entire set of articles in one special issue in due time, we kindly ask you to keep the deadline.

Thank you for your cooperation.

Yours sincerely,

Date ..... Signature .....



REPRINTS SERVICE

In response to increasing demand we offer a reprints service in respect to all articles published in Elsevier Science Ltd journals.

Whether you are a contributor or a company we can reprint any article and tailor it to your needs - incorporating advertisements, company logos or special covers to your specification.

Reprints can be used by you to keep your colleagues informed about your work or educate customers and staff about scientific or technical advances in subjects relevant to your business.

For a quotation on your reprint requirements, please contact:

THE REPRINTS DEPARTMENT,
ELSEVIER SCIENCE LIMITED,
THE BOULEVARD,
LANGFORD LANE, KIDLINGTON,
OXFORD OX5 1GB.

TELEPHONE: +44 (0) 1865 843520
FAX: +44 (0) 1865 843922

Physics and Chemistry of the Earth

European Geophysical Society
Editorial Office
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany
Tel: (49)-5556-1440
Fax: (49)-5556-4709
EGS@COPERNICUS.ORG
http://www.copernicus.org/EGS/EGS.html

Guidelines for Preparing Manuscripts in Camera-Ready Format for *Physics and Chemistry of the Earth*

These guidelines as well as the guidelines for preparing manuscripts for the pre-publication review can be obtained via WWW or from the Editorial Office.

I) Guidelines for PC Users

Printing requirements

Only single-sided laser printouts (or printouts of similar quality) of 300 dpi and better with uniform blackness of the lettering are acceptable. The printing area is 17.7 cm (width) x 24.1 cm (height) and with two columns of 8.5 cm width each and a space of 0.7 cm between the columns.

Print out your text on a normal white (A4 or American size) paper or, when necessary, cut-and-paste it on special paper which can be provided by the Editorial Office, to fit inside the blue outline indicating the printing area.

Number all pages consecutively outside the printing area.

General typing requirements

Typeface:	Times (Roman)
Size of type in text:	10-point justified
Space between lines (leading):	2 points
Typesize for small print (tables, legends, footnotes, acknowledgements and references):	8-point justified
Space between lines (leading):	2 points
Section Headings (incl. Introduction, Results, number, Discussions & Summary):	numbered, 10-point boldface incl. free-standing, 1 blank line afterwards
Section Sub-Headings & Sub-Sub-Headings:	Sub-numbered, 10-point justified incl. number(s)
Space between separate sections:	2 blank lines (except between Abstract and Introduction)
Space between separate paragraphs:	none; text of first paragraph begins flush left; all following paragraphs are indented 2 space (10 points).

Title page

The title page should contain the title of the article, the names of the authors and their addresses, as well as the name of the author to whom offset requests should be sent to. This information should be typed on a separate sheet of paper.

First page of the article

The first printed line in both columns should begin 7.6 cm below the upper margin, to allow for enough space for the title and the author and affiliation block, which is described below.

At the bottom of the first column make an 3.4. cm long line and write directly below this line the following information:
Correspondence to: Name, with, preferentially, "*Correspondence to:*" in 10 point Times Italic and "Name", the name of the author to whom offprint requests should be sent, in 10 point Times Roman. The complete information must be included in the overall vertical dimension of the first column of 16.5 cm.

Title-Author-Affiliation block

The printing area for this block at the top of the first page of the article is 17.7 cm (width) x 7.6 cm (height) and across both columns. All lines must be set flush left.

TITLE:
The title should be typed in 17 point with 40 point leading (space to the upper margin) or 17/57 point for the first line and with 5 point leading (space to previous title line(s)) or 17/22 point for all following lines. Except for any proper nouns, only the first word of the title shall be capitalized.

AUTHOR(S):
Authors must be listed successively one after another as A. First, or A. First and B. Second or A. First, B. Second, and C. Third etc. This text must be typed in 10 point Times Bold with 8 point leading (space to the title block) or 10/18 point for the first line and 2 point leading (space to the previous authors' line) or 10/12 point for all following lines. If there are more than one affiliation, footnotes marked by raised 8 points Times Roman numbers 1, 2, 3 etc. must be added at the end of each author's name, respectively, whereby the footnote "1" should be reserved for the first author. In case an author's name is associated with two or more footnotes (affiliations), these footnotes must be separated by a comma in the size and type of the footnotes.

AFFILIATIONS(S):
Type all affiliations (names and postal addresses of corresponding institutes or organizations) or information directly associated with authors (e.g., "On leave from" or "Postal address" etc.) in 10 point Times Roman with 6 point leading (space to author's block) or 10/16 point for the first line and 2 point leading (space to previous affiliation lines) or 10/12 point for all following lines. If there are more than one affiliation or "information", each new affiliation/information should begin with a new line, and the corresponding footnotes marked by raised 8 point Times Roman numbers must appear at the beginning of each respective affiliation/information line. The various affiliation lines must appear in the natural order: 1, 2, 3 etc. below of one another.

MS INFORMATION:
Together with the letter of acceptance for publication the author to whom all correspondence should be addressed will receive some general information regarding the manuscript, such as the dates of receipt, revision and acceptance. At a distance of 2 blank lines (2 x 12 point) from the bottom of the title block the following information must be included in 10 point Times Roman: Received ?? - (Revised ??) - Accepted ??, where the text to be inserted in place of ?? will be provided by the Editorial Office or the Editor(s).

REMARK:
Authors who have difficulties in completing the Title-Author-Affiliation block should leave this space empty. This block will then be typeset and added by the printing office with the information provided in the Title Page.

Structuring the Text

Please, structure the article as follows: Abstract, Introduction, Sections incl. Conclusions, Discussions or Summary, Appendices, Acknowledgements and References.

Example

Abstract. It has recently become a matter of discussion among geologists and geophysicists whether the topographic structure of the sea floor can be described as a fractal process, using the concepts of self-similarity and self-affinity.

---

1 Introduction

Pictures of fractals have become popular as modern art (Peitgen and Richter, 1986).

Long time ago, Peano (1890) and Fricke and Klein (1897) described measures and sets now called "fractals", while Besicovitch extended the definition of fractal dimension to non-integer and non-standard shapes (cf. Mandelbrot, 1983).

Recently it has become a subject of discussion whether the ocean sea floor can be described as a fractal process. In this context it has been suggested that self-similar or self-affine fractal processes could be applied (Goff et al., 1991)

Description

Abstract. 10-point boldface incl. period. Text follows immediately after period in 10-point type with 2 points space between lines (leadings). After the abstract allow one blank line. Then make an 8.5 cm long line and allow 2 more blank lines.

Introduction. Number, one space indent and heading all in 10-point boldface and free-standing. 1 blank line and then the text of the first paragraph flush left 10-points with 2 points between lines. All following paragraphs are indented 2 spaces (10 points). Allow 2 blank lines after the introduction.

References. in the text are cited as follows: Miller (1986), Miller and Anderson (1987) or Miller at al. (1989), if there are more than two authors. If name(s) and date(s) are enclosed in parentheses, references are cited as follows: (Miller, 1986), (Miller, 1986; Miller et al., 1989) with multiple citations separated by semicolon.

Sections. All section headings incl. "Results", "Discussions" or "Summary" must be numbered: number, one space indent and heading all in 10-point boldface and free-standing; similar for sub-headings and sub-sub-headings but not boldface.

Example

2 Mathematical Background

2.1 The Transport Equations

2.1.1 The Standard Set

$$u_t + 6uu_x + u_{xxx} +$$

$$\varepsilon[N_t + 6(Nu)_x + N_{xxx} - u_{xxt} - (u_x^2)_x - 2(uu_{xx})_x] + \quad (68)$$

$$-\varepsilon^2[N_{xxt} + 2(uN)_{xxx} - 2(u_xN_x)_x - 3(N^2)_x] +$$

$$-\varepsilon^3[(N_x^2)_x + 2(NN_{xx})_x]$$

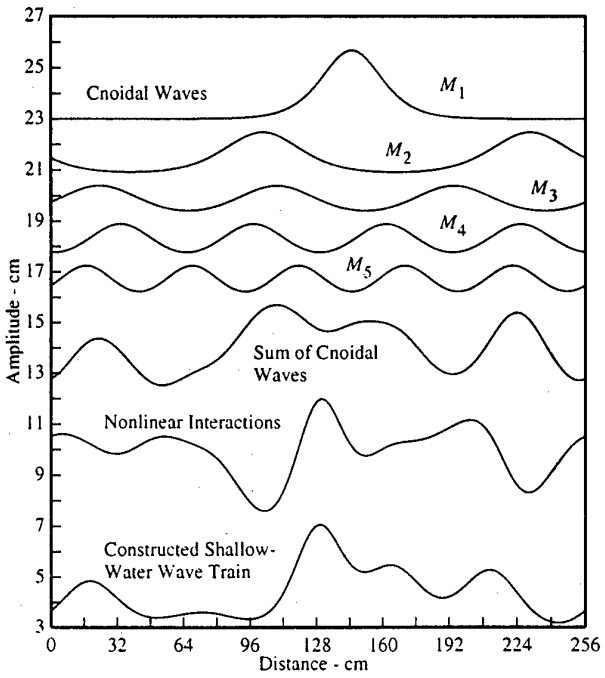


Fig. 3. The cnoidal wave components in the spectrum of Fig. 2 (vertically ordered from small to large wave numbers) are shown, together with the sum of the cnoidal waves, the nonlinear interactions and the synthesized five-component wave train. The linear superposition of the cnoidal waves plus interactions yields the constructed wave train at the bottom of the panel.

	u_{5x}	uu_{xxx}	u_xu_{xx}	u^2u_x
Kodama	1	10	20	30
CH	1	4	14	0
W2	1	~5.3	~12.1	~-3.2

Table 1. Comparison of the constant coefficients for each $O(\varepsilon)$ term in the Kodama (4), the deregularized CH (7) and the W2 (3b) equations.

Description

After each freestanding heading, sub-heading or sub-sub-heading there is one blank line. The text of the first paragraph begins flush left on a new line. All following paragraphs are indented 2 spaces (10 points) without any blank line to the previous one. Allow 2 blank lines after each section to the heading of the following one.

Mathematical Symbols and Formulae. All characters should be typed. Avoid confusion between similar looking symbols, letters and numbers or Greek and Roman letters. Equations should be numbered by arabic numerals in parentheses on the right-hand side (flush right). In general, equations should be included in one column, flush left and should, if too long, split accordingly.

Units. The metric system is mandatory and, wherever possible, SI units should be used.

Figures. All figures, whether diagrams, graphs or photographs (black and white, colour or half-tone) should be of high quality, trimmed at right angles and glued in the laser printout at the appropriate location in the text, preferentially at the top of a column/page. Figures incl. labelling should fit in one column (8.5 cm in width) but may extend up to 17.7 cm in width (both columns) or may even take a whole page 17.7 x 24.1 cm. Figures and legends must be flush left. Figure legends (8-point type with 2 points space between lines) are to be placed under the figures. If a figure is wider than 8.5 cm but smaller than 12.5 cm in width the legend should be placed on the right-hand side next to the figure. Figures must be numbered and abbreviated as Fig.1., Fig.2. etc. in boldface. The text of the caption should follow immediately. Allow 2 blank lines after each figure before the text is continued.

Tables. Tables should be handled like figures. The table caption should be numbered as Table 1., Table 2. etc. boldface. The text of the caption should follow immediately. Table captions appear above the table. Tables incl. caption should be prepared in 8-point type without vertical lines.

Footnotes. Footnotes should be avoided. However, if present they should be numbered consecutively and prepared in 8-point type. Footnotes to tables should be marked by raised lower-case letters.

Appendices. Appendices should be labeled by capital letters, e.g. Appendix A, Appendix B etc. and treated like independent sections otherwise. Equations, figures and tables are numbered consecutively as (A1), Fig. B1. or Table C5., respectively.

Example

Acknowledgement. On behalf of the editors and of the Society we would like to thank all colleagues submitting their manuscripts to *Physics and Chemistry of the Earth* for publication.

References

Peitgen, H.O. and Richter, P.H. (Eds.), *The beauty of fractals*, Springer, Berlin Heidelberg New York, 1986.

Mandelbrot, B.B., Self-affine fractals and fractal dimension, *Physica Scripta, 32*, 257-260, 1985.

Goff, J.A. Jordan, T.H., Edwards, M.H., and Fornari, D.J., Comparison of a stochastic seafloor model with Sea MARC II bathymetry and Sea Beam data near the East Pacific Rise 13°-15°N, *J. Geophys. Res., 96*, 3867-3885, 1991.

Description

Acknowledgements. This section should be prepared in 8-point type with, preferentially, "*Acknowledgement(s)*" in italic. The text follows immediately after the period. Allow 2 blank lines after this section.

References. Heading in 10-point type boldface and freestanding; one blank line afterwards. References in 8-point type. If possible, book titles and titles of journals incl. volume numbers in italic. The first line of each individual reference begins flush left on a new line; subsequent lines are indented 2 spaces (8 points). All authors' names and initials have to be typed in reverse order, i.e., Mandelbrot, B.B.; if there are more than two authors, please insert a comma before "and"; no comma, however, if there are only two authors.

Writing Style

Neither headings, sub-headings, figure legends, table captions nor any other word in the text should be capitalized except for the opening letter, names and certain abbreviations. Only when used with numbers, the following abbreviations and expressions should be capitalized: Fig(s).1, Table(s) 2, Sect(s).5, Chap(s).10, Appendix A, Paper II, Theorem 5, Eq(s).(9) etc.

If abbreviations of names or concepts are used throughout the article, they should be defined at first occurrence.

The following words should be abbreviated when they appear in the running text followed by a number unless they come at the beginning of a sentence: Eq., Fig., Sect., Chap.; e.g. "The results is depicted in Fig.15. Figure 3 reveals that ...".

The respective numbers of equations should occur in parentheses, e.g., Eq.(9). Thus, e.g., "We have shown in Eq.(9) that ... Equation (9) indicates that ...".

Characters

Complex numbers:	C
real numbers:	R
natural numbers:	N
rational numbers:	Q
integer numbers:	Z

II) LaTeX Macro Package

There is a official LaTeX package available for formatting your LaTeX manuscript in camera-ready form. The package contains the following files:

egs_man.tex	=	An instruction manual, as LaTeX file
egs.bst	=	The bibliographic style file for BibTex
egs.sty	=	The LaTeX 2.09 style file, with modifications to article style
egs.cls	=	The LaTeX2e class file, with modifications to article class
readme.egs	=	General Information
sample.bib	=	A sample bibliography database for the sample text
samp_egs.tex	=	A sample text file

Process egs_man.tex under LaTeX (2.09 or 2e) to obtain the instruction manual for complete details on usage. The demonstration article in samp_egs.tex illustrates most of the features.

This package can be received via Internet from WWW; otherwise please contact the Editorial Office.

III) Guidelines for typewriter-prepared manuscripts

If you wish to receive these Guidelines please contact the Editorial Office.

IV) Submission and general contact

If not stated otherwise, please submit your hard copy, camera-ready manuscript without folding the paper to/contact:

EGS Editorial Office Tel: +49-5556-1440
Max-Planck-Str. 13 Fax: +49-5556-4709
37191 Katlenburg-Lindau EGS@COPERNICUS.ORG
Germany http://www.copernicus.org/EGS/EGS.html

New New New New

Hydrology and Earth System Sciences

ISSN 1027-5606

Scope

Hydrology and Earth System Sciences (HESS) is an international and interdisciplinary journal for the publication of original research in hydrology, viewed as a separate geoscience alongside the atmospheric, ocean and solid earth sciences. HESS serves not only the community of scientific hydrologists, but all geoscientists who wish to publish new findings on the interactions between hydrology and other physical, chemical and biological processes within the Earth System. Papers on theory and modelling, experiment or instrumentation, in the following areas will be particularly welcome :

- Hydrology and the Earth's Crust
- Hydrology and Land Forms
- Hydrology and Climate Processes
- Hydrology and Weather Processes
- Hydrology and Surface Processes
- Hydrology and Soil Processes
- Hydrology and Living Communities
- Hydrology and Chemical Processes
- Hydrology and Applied Mathematics.

The journal will maintain sections for regular length articles, brief communications (letters) and commentary.

Publication and Submission Policy

- Rigorous peer review by at least two independent, competent colleagues prior to publication.
- No page or handling charges for authors.
- 25 free offprints for authors and additional offprints at special rates.
- Colour reproductions at special cost-price rates.
- Moderate library subscription rates.
- Greatly reduced subscription rates for members of the European Geophysical Society.
- Four copies of the manuscript should be mailed to the Managing Editor.

Managing Editor

J.S.G. McCulloch
Water Resource Systems
Research Laboratory
Department of Civil Engineering
University of Newcastle upon Tyne
Newcastle upon Tyne NE1 7RU
United Kingdom

Tel: +44-1865-407770
Fax: +44-1865-407770
rmccull585@aol.com

Scientific Editors

E. Custodio Gimena (Madrid), **R. Rosso** (Milano), **P. Kabat** (Wageningen), **E. Foufoula Georgiou** (Minneapolis), **P.E. O'Connell** (Newcastle-upon-Tyne), **P. German** (Bern), **J.P. O'Kane** (Cork) and **C. Neal** (Wallingford)

Subscription Rates

Volume 2 (4 issues) will appear in 1998. The subscription rates incl. handling and surface mail charges are
- GBP 150,-/DEM 420,- for institutions
- GBP 50,-/DEM 140,- for EGS members
- Airmail surcharge for outside Europe GBP 6,-/DEM 16,-
- GBP 10,-/DEM 28,- for a normal thematic issue

Please send orders & payments to:

EGS Office
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

Tel: +49-5556-1440
Fax: +49-5556-4709
egs@copernicus.org

Full details via Internet

http://www.copernicus.org/EGS/EGS.html

Order Form

Hydrology and Earth System Sciences
ISSN 1027-5606

☐ I will enclose a cheque

☐ Please bill me

☐ Please charge my credit card

- ☐ Eurocard/Mastercard/Access
- ☐ VISA
- ☐ American Express

Number: _____

Valid until: _____

Cardholder: _____

Please enter my subscription from the year 19 _____

☐ at the Annual Institutional Subscription Rate of _____

☐ at the Annual Membership Subscription Rate of _____

Name & Address: _____

_____

_____

Date: _____

Signature: _____

The Father of Climate Modelling and of the Astronomical Theory of Palaeoclimates

Milutin Milanković

An extract from his *autobiography* compiled by his son, Vasko, describing in detail the way his father derived his mathematical theory of the glacial and inter-glacial cycles, of the Earth's rotation and of plate tectonics as well as his exchange of ideas with the other pioneering geophysicists of his time, such as Köppen, Brückner, Zeuner, Wegener, and others.

With a *preface* by André Berger explaining the historical background for the astronomical theory of palaeo-climates and the pioneering contribution of Milanković.

A *book*, leather bound, published in English, 181 pages, 51 photographs and figures and 12 facsimiles and their translations.

Member Price (*):
45,- DEM / 35,- USD / 22,- GBP / 175,- FRF
(*) for members of any national or international scientific society/union.

List Price:
60,- DEM / 46,- USD / 29,- GBP / 230,- FRF

Payment by *cheque*
(in the currency of the country of the bank on which the cheque is actually drawn)

Payment by *credit card*
(VISA, American Express, Eurocard/Mastercard; processed in DM at most favourable conversion rates)

Orders should be sent by e-mail, telefax or mail to:

EGS Office
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

Tel: +49-5556-1440
Fax: +49-5556-4709
EGS@COPERNICUS.ORG
http://www.copernicus.org/EGS/EGS.html

Order Form

Milutin Milanković
ISBN 3-9804862-0-6

❒ Please bill me

❒ I will enclose a cheque

❒ Please charge the credit card

- ❒ Eurocard/Mastercard/Access
- ❒ VISA
- ❒ American Express

Number: _____

Valid until: _____

Cardholder: _____

I hereby order

___ copies at the Member Price/ ___ copies at the List Price

Name: _____

Address: _____

_____

_____

Date: _____

Signature: _____

Now Jointly with AGU

Nonlinear Processes in Geophysics

Since 1994

ISSN 1023-5809

Scope

An international, interdisciplinary journal for the publication of original research involving nonlinear processes in geophysics in the broadest sense.

Publication Policy

- Rigorous peer review by at least two independent, competent colleagues prior to publication.
- Express publication, if accepted papers are delivered in camera ready form by the author(s). Appropriate detailed guidelines or LaTeX macros are provided by the Editorial Office.
- No page or handling charges for authors.
- 25 free offprints for authors and additional offprints at special rates.
- Colour reproductions at special cost-price rates for authors.
- Moderate library subscription rates.
- Greatly reduced subscription rates for members of the American Geophysical Union and of the European Geophysical Society.

1998 Subscription Rates

Volume 5 (4 issues) will appear in 1998 at the following institutional and EGS and AGU membership subscription rates (including handling and surface mail charges):

Regular Members	DEM 96,- / US$ 67,-
Student Members	DEM 56,- / US$ 39,-
Retired Scientists	DEM 56,- / US$ 39,-
Institutional	DEM 198,- / US$ 135,-
Air Mail Surcharge (outside Europe)	DEM 16,- / US$ 12,-

Please send your order to the EGS Office.

Editorial Structure

Executive Editor
A.R. Osborne (Torino, Italy)

Editors
R.L. Bras (Cambridge, USA), **A.D. Kirwan** (Norfolk, USA), **L. Knopoff** (Los Angeles, USA), **E. Marsch** (Katlenburg-Lindau, Germany), **V.I. Shrira** (Moscow, Russia)

Editorial Office
B. Rauchalles — Tel: +49-5556-1440
EGS Office — Fax: +49-5556-4709
Max-Planck-Str. 13 — EGS@COPERNICUS.ORG
37191 Katlenburg-Lindau
Germany — http://www.copernicus.org/EGS/EGS.html

Special Issues

- ❒ Conference on Fractals, Chaos and Predictability in Oceanography and Meteorology, Volume 1, Number 1, 1994.
- ❒ Conference on Nonlinear Variability in Geophysics: Scaling and Multifractal Processes, Volume 1, Number 2/3, 1994.
- ❒ 20th International Conference on Mathematical Geophysics: Complex Space Time Geophysical Structures, Volume 2, Number 3/4, 1995.
- ❒ MFGA-IDT2 workshop: Astrophysical and geophysical fluid mechanics: the impact of data on turbulence theories, Volume 3, Number 4, 1996.

Single Issue:	DEM 20,-/USD 15,-
Double Issue:	DEM 40,-/USD 30,-

Order Form

Nonlinear Processes in Geophysics
ISSN 1023-5809

❒ I will enclose a cheque

❒ Please bill me

❒ Please charge my credit card

- ❒ Eurocard/Mastercard/Access
- ❒ VISA
- ❒ American Express

Number: _____

Valid until: _____

Cardholder: _____

Please enter my subscription from the year 19 _____

❒ at the Annual Institutional Subscription Rate of _____

❒ at the Annual Membership Subscription Rate of _____

Member of _____

I order _____ copies of the Special Issue(s)

_____

Date: _____

Signature: _____

Modern Ionospheric Science

H. Kohl, R. Rüster and K. Schlegel (Eds.)
ISBN 3-9804862-1-4
European Geophysical Society

A collection of sixteen articles on various aspects and 'hot topics' of ionospheric research, written by specialists in their respective fields. Useful as a textbook for students as well as for research scientists who wish to update their knowledge of new developments in ionospheric science.

560 pages
Hardcover

10 black-and-white and
30 colour photographs

Member Price: (*)
80,- DEM / 65,- USD / 40,- GBP / 315,- FRF
(*) for members of any national or international scientific society/union

List Price:
120,- DEM / 95,- USD / GBP 60,- / FRF 470,-

All prices include postage and handling.

Orders should be sent by e-mail, telefax or mail to:

EGS Office
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

W.I. Axford, T. Hagfors, 50 years of ionospheric research at the Max-Planck-Institut für Aeronomie
H. Rishbeth, H. Kohl, L.W. Barclay, A history of ionospheric physics and radio communications
S.W.H. Cowley, The auroral ionosphere and its coupling to the magnetosphere and solar wind
L. Thomas, The coupling of the lower ionosphere with the mesosphere and lower thermosphere
H. Volland, Electrodynamic coupling between neutral atmosphere and ionosphere
P.J.S. Williams, Tides, atmospheric gravity waves and travelling disturbances in the ionosphere
R.W. Schunk, J.J. Soika, Ionospheric Models
B.G. Fejer, Natural ionospheric plasma waves
P. Stubbe, The ionosphere as a plasma laboratory
A.W. Wernik, Methods of data analysis for resolving nonlinear phenomena
R. Leitinger, Tomography
N. Jakowski, TEC monitoring by using satellite positioning systems
R.A. Greenwald, The role of coherent radars in ionospheric and magnetospheric research
D.T. Farley, Incoherent scatter radar probing
B.W. Reinisch, Modern ionosondes
R.F. Pfaff, In-situ measurement techniques for ionospheric research

Tel: +49-5556-1440
Fax: +49-5556-4709
EGS@COPERNICUS.ORG
http://www.copernicus.org/EGS/EGS.html

Order Form

Modern Ionospheric Science
ISBN 3-9804862-1-4

☐ Please bill me

☐ I will enclose a cheque

☐ Please charge the credit card

- ☐ Eurocard/Mastercard/Access
- ☐ VISA
- ☐ American Express

Number: _____

Valid until: _____

Cardholder: _____

I hereby order

___ copies at Member Price/ ___ copies at List Price

Name: _____

Address: _____

_____

_____

Date: _____

Signature: _____

tectonics

Bimonthly

A Joint Publication of the EGS and AGU.

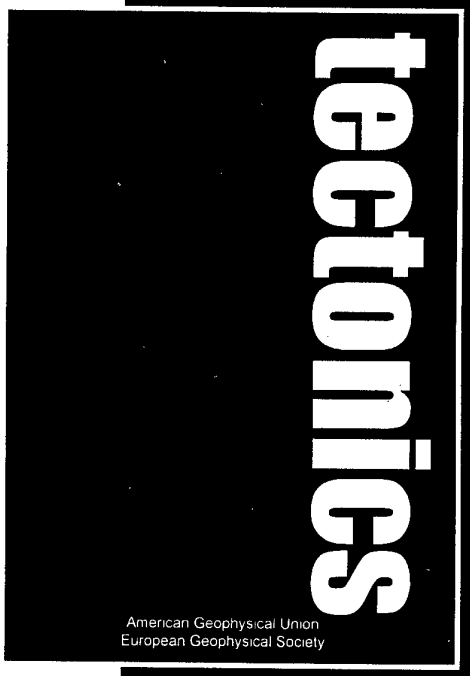
Tectonics contains original and timely papers in analytical, synthetic, and integrative tectonics. Contributions address the structure and evolution of the terrestrial lithosphere with dominant emphasis on the continents. A rigorous peer-review process and timely processing of manuscripts ensures *Tectonics* to be highly regarded among scientists worldwide.

Subscription Rates

AGU or EGS member	$81
AGU or EGS student members	$41

Shipping Outside U.S.

Surface	$18
Airfreight	$43
Airmail	$82



Subscribe Today!

	European Office	U.S. Office
Online:	http://www.agu.org	http://www.agu.org
E-Mail:	egs@copernicus.org	orders@kosmos.agu.org
Voice:	+49-5556-1440	+1-202-462-6900
Fax:	+49-5556-4709	+1-202-328-0566
Mail:	EGS - Orders Max-Planck Str. 13 37191 Katlenburg-Lindau GERMANY	AGU - Orders 2000 Florida Ave., NW Washington, DC 20009 USA

Submit to *Tectonics* Today!

Five copies of double-spaced typescript should be submitted to the editor-in-chief or the European editor at the addresses provided below. Please enclose a list of five possible referees and their addresses, telephone, e-mail, and fax numbers to help guide the editor's choice. One set of figures must be suitable for reproduction. For details on style, contact an editor's assistant listed below or consult the last pages of a recent issue of *Tectonics*.

Editor-in-Chief
David Scholl
USGS/Stanford Univ.

Submissions to:
AGU - Tectonics
2000 Florida Ave., NW
Washington, DC 20009
USA

Voice: +1-703-462-6900
Fax:: +1-703462-2253

Editor's Assistant
Bonnie Bright
bbright@kosmos.agu.org

European Editor
Adrian Pfiffner
Univ. Bern

Submissions to:
EGS - Tectonics
Max-Planck Str. 13
37191 Katlenburg-Lindau
GERMANY

Voice: +49-5556-1440
Fax:: +49-5556-4709

Editor's Assistant
Bernd Rauchalles
egs@copernicus.org

http://www.agu.org

View the three most recent tables of contents, learn more about the editors, and submissions, or subscribe on the web.

Code: **EGS**

KARSTEN M. STORETVEDT

Our Evolving Planet

Earth History in New Perspective

Does the plate tectonic model represent a "quantum leap" in our understanding of the Earth as currently alleged? And will that model be a fruitful guide for the Earth sciences into the 21st Century? This book answers such questions with a definite no! The author's message is clear: something must be fundamentally wrong when an originally highly tentative model, having subsequently failed all critical tests, continues to be regarded as universally valid.

On this background the author launches a new Earth evolution model, a theory with much broader scope and greater explanatory power than its predecessors. In the new framework global tectonics becomes intimately linked to Earth's rotation, and based on well-known dynamical principles of rotating planetary bodies the whole of Earth history becomes a chain of interrelated phenomena. In all, the book urges for a highly needed change in the perception and evaluation of familiar data.

The author, Karsten M. Storetvedt, has held a chair in geophysics at the University of Bergen since 1973. He graduated in 1962, and received his doctorate at the University of Bergen in 1969 after post-graduate and pre-doctoral studies at the University of Newcastle-upon-Tyne, partly under the late Prof. S.K.Runcorn.

456 pages, 198 illustrations, format 17 x 24 cm, hardbound. Price NOK 585 (USD 80) plus postage. ISBN 82-419-0221-2

Order the book from your bookseller or directly from the publishers:
ALMA MATER FORLAG, P.O. BOX 4213, Nygårdstangen, 5028 Bergen, Norway.
Fax: 47-55 31 84 68, Tel: 47-55 58 31 78

Order Form

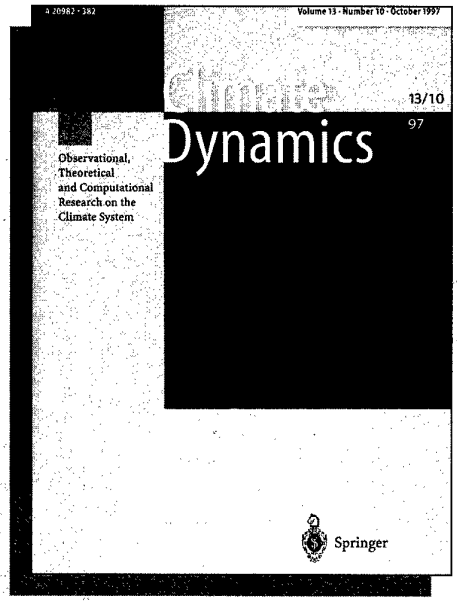
I hereby order
------ copies of K.M. Storetvedt: Our Evolving Planet, at a price of NOK 585 plus postage.
----- I enclose a cheque
----- I wish to pay by Am Express/Visa/Diners/Mastercard/Eurocard (delete as necessary)

Card number: ----------
Valid until:----------

Name and address of cardholder:

Signature:

High-quality research



Climate Dynamics

Observational Theoretical and Computational Resarch on the Climate System

Published in cooperation with the *European Geophysical Society (EGS)*

Executive Editors:
W.L. Gates
J.-C. Duplessy
L. Dümenil

LINK Also available online
http://link.springer.de

An international forum for the publication of research on all aspects of the dynamics of the global climate system. Topics cover original paleoclimatic, diagnostic, analytical or numerical modeling research on the structure and interaction between the atmosphere, oceans, cyrosphere, biomass and land surface. Also included are contributions focused on selected aspects of climate dynamics on particular scales of space or time as well as contributions emphasizing an integrated view of the physical and biogeochemical process governing climate and climate change.

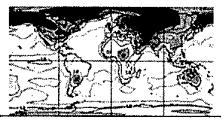
Subscription information for 1998:
Volume 14, 12 issues
DM 1798,–
For members of the EGS
DM 98,–
ISSN 0930-7575 Title No. 382
ISSN 1432-0894 electronic edition

Members are requested to order through:
EGS Office, P.O. Box 49
D-37191 Katlenburg-Lindau FRG

Please order from
Springer-Verlag Berlin
Fax: + 49 / 30 / 8 27 87- 448
e-mail: subscriptions@springer.de
or through your bookseller

Springer

Plus carriage charges. Price subject to change without notice.
In EU countries the local VAT is effective. Errors and omissions excepted.



Journal of Atmospheric Chemistry

Published in cooperation with the European Geophysical Society (EGS)

Editors:
Dieter H. Ehhalt
Institute for Atmospheric Chemistry, Forschungszentrum Jülich, Germany
Paul J. Crutzen
Max-Planck-Institute for Chemistry, Mainz, Germany
Brian A. Ridley
Atmospheric Chemistry Division, NCAR, Boulder, CO, USA
Robert J. Delmas (EGS Editor)
Laboratoire de Glaciologie et Géophysique de l'Environnement, St.Martin d'Hères, France

The *Journal of Atmospheric Chemistry* is devoted to the study of the chemistry of the Earth's atmosphere, with emphasis on the region below about 100 km. The strongly interdisciplinary nature of atmospheric chemistry leads it to embrace many varied sciences, but the journal concentrates on the following topics:

- Observational, interpretative and modelling studies of the composition of air and precipitation and physiochemical processes in the Earth's atmosphere, excluding air problems of only local importance.
- The role of the atmosphere in biogeochemical cycles; the chemical interaction of ocean, land surface, biosphere with the atmosphere.
- Laboratory studies of the mechanics in homogeneous and heterogeneous transformation processes in the atmosphere.
- Descriptions of major advances in instrumentation developed for the measurement of atmospheric composition and chemical properties.

Subscription Information: **ISSN 0167-7764**
1998, Volumes 29-31 (9 issues)
Subscription Rate: NLG 1260.00/USD 646.50, including postage and handling.
Special rate for EGS: NLG 260.00, including postage and handling.

ELECTRONIC AVAILABILITY AND ACCESS
In 1998 electronic access to a number of our journals is available free to institutions and there members that have a subscription to the hard copy of the 1998 volumes. Access is available via the following service providers:

Swets & Zeitlinger (Swetsnet)
Blackwell's Information Services (Navigator)
EBSCO (Ebsco Online)
Dawson/Faxon (Information Quest)
OCLC (ECO)

Please consult any of these service providers for information on which journals are available electronically and how to access them. You may also consult our homepage to find out which journals are available electronically.

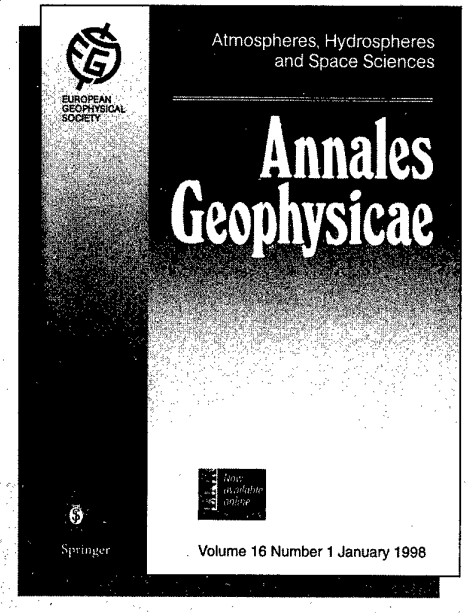
P.O. Box 322, 3300 AH Dordrecht, The Netherlands
P.O. Box 358, Accord Station, Hingham, MA 02018-0358, U.S.A.

http://www.wkap.nl

Kluwer academic publishers



Featuring "Letters section" for latest results



Annales Geophysicae

Atmospheres, Hydrospheres and Space Science

Editor-in-Chief:
S.W.H. Cowley

Editorial Executive:
S. Perret

LINK Now available online
http://link.springer.de

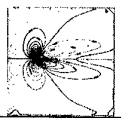
An international, multi- and inter-disciplinary scientific journal covering the fields:

- Physics and dynamics of the oceans and seas
- Air-sea and air-land-vegetation interactions
- Modelling and remote sensing of oceans, atmospheres and climate
- Physics, dynamics and chemistry of the lower, middle and upper atmosphere of the Earth
- Physics of the ionosphere and magnetosphere of the Earth
- Interplanetary and heliospheric physics
- Physics and dynamics of the solar atmosphere
- Space plasma physics and active experiments in space.

Subscription information for 1998:
Volume 16, 12 issues
DM 1798,–
ISSN 0992-7689 Title No. 585
ISSN 1432-0576 electronic edition

Please order from
Springer-Verlag Berlin
Fax: + 49 / 30 / 8 27 87- 448
e-mail: subscriptions@springer.de
or through your bookseller

Plus carriage charges. Price subject to change without notice.
In EU countries the local VAT is effective. Errors and omissions excepted.



Springer

Surveys in Geophysics

An International Review Journal of Geophysics and Planetary Sciences
published under the auspices of The European Geophysical Society

Associate Editors:
W.I.Axford
A.L. Berger
H. Burkhardt
G. Vachaud

Editorial Board:
C.E. Barton, P. Bauer, V. Cermak, M.L. Chanin, M. Coradini, K.M. Creer, A. Ebel, J. Gallart, J.A. Johnson, J. Jouzel, P. Kabat, M. Leppäranta, G. Marklund, I. Marson, P.L. Read, M. Rycroft, F.D. Stacey, E. Thrane, John T. Weaver

Surveys in Geophysics publishes papers on the study of the physical processes occurring within the Earth, on its surface and in the space surrounding it, including its interaction with other bodies in the solar system. The papers appearing in the journal present a concise, well constructed review of recent advances in areas of topical interest, written for the broad geophysical community, i.e. all earth scientists having some background in physics, whether they are working in academia or are engaged in other professional activities. The nature of the review articles which appear as soon as is practicable after the pioneering work which they describe, is such that they can also be used by graduate students in their coursework as an alternative to textbooks.
The subjects dealt with in *Surveys in Geophysics* comprise all areas covered by EGS, IUGG and AGU: the solid Earth, its oceans and atmosphere, solar-terrestrial phenomena, planets and space physics, hydrology, atmospheric physics, meteorology, the magnetosphere and ionosphere; the geophysics of the Moon and the terrestrial-type planets; and the physics of exploration for natural resources, including new developments in the methods and techniques of applied geophysics. Readers of *Surveys in Geophysics* thus have available mature, thoughtful reviews of recent developments in their own field, and they may be confident of keeping abreast in areas peripheral to their own. Its unparalleled access and breadth of coverage make *Surveys in Geophysics* one of the leading specialist publications on the Earth sciences.

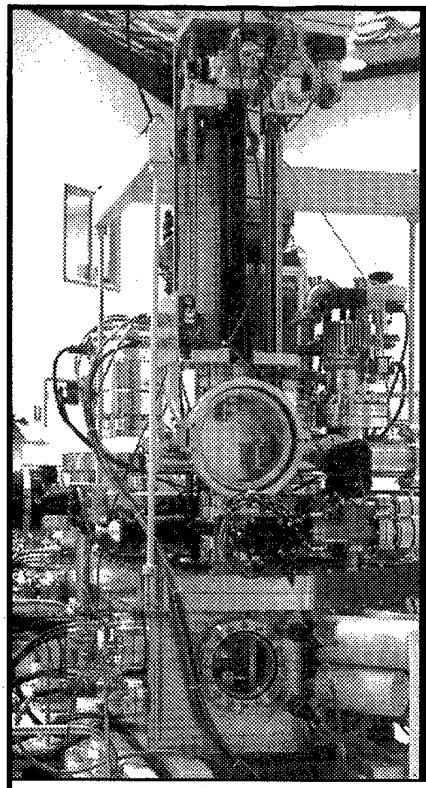
Recently Published Review Articles:
- P.Yiou, E. Baert and M.F. Loutre / Spectral Analysis of Climate Data
- Hans Volland / Atmosphere and Earth's Rotation
- Rita Schulz / Dust and Gas in D/Shoemaker-Levy 9
- J.C.I. Dooge / Search for Simplicity in Hydrology
- G.K. Korotaev / Radiating Vortices in Geophysical Fluid Dynamics
- G.J. Borradaile / Deformation and Paleomagnetism

Subscription Information: **ISSN 0169-3298**
1998, Volume 19 (6 issues)
Subscription Rate: NLG 830.00/USD 426.00, including postage and handling.
Special Price for EGS Members: DM 165.00 (1998)

P.O. Box 322, 3300 AH Dordrecht, The Netherlands
P.O. Box 358, Accord Station, Hingham, MA 02018-0358, U.S.A.

http://www.wkap.nl

Kluwer academic publishers



SHRIMP

Sensitive High Resolution Ion Micro Probe *- or SHRIMP - is a large, double focusing secondary ion mass spectrometer created for geochronological and geo- and cosmo- chemical investigations. SHRIMP is unsurpassed whenever the requirements for high spatial and mass resolution are coupled with the need for maximum sensitivity.*

There are now two SHRIMPs:

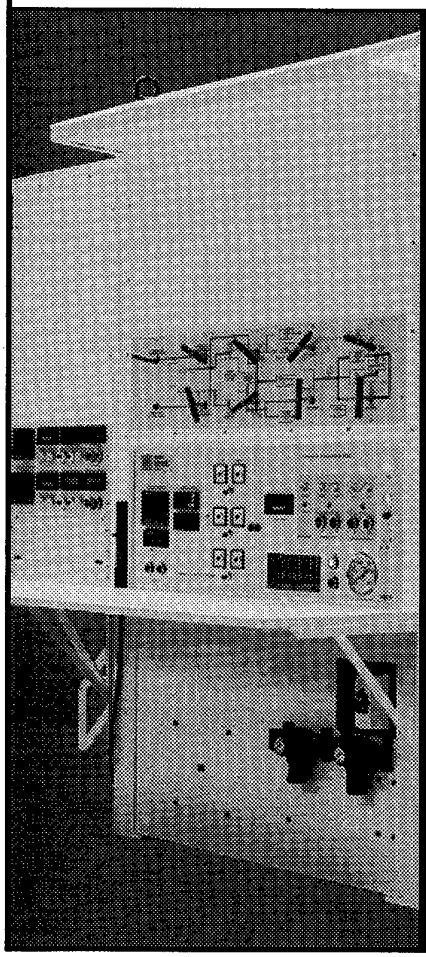
SHRIMP II
1.2% Useful Yield
M/ΔM > 5000 (1% definition)
5 - 30 μm sharply defined, flat-bottomed craters
Simultaneous viewing of sample during analysis

SHRIMP RG
Reverse Geometry - mass analysis precedes energy analysis
A factor of four increase in mass resolution for a given sensitivity

Both SHRIMPs have been designed for ease of operation, low maintenance, minimum downtime and high throughput.

Australian Scientific Instruments

PARTNERS IN RESEARCH



HPT

The HPT Testing Machine *provides a comprehensive facility for mechanical testing of materials at confining pressures to 500 MPa (70,000psi) and temperatures to 1600K (1300°C). It can also provide the basic high-pressure high-temperature environment for other types of research, such as hot isostatic pressing (HIP), materials synthesis, and physical property measurements. Modular design allows additional features to be added as requirements arise.*

Design Features
Safety and convenience in use involving precautions for safe operation while at the same time minimising the hassles of high pressure work.

Three-zone internal furnace: ensures minimal heating of the pressure vessel while permitting relatively rapid heating and cooling as well as easy control of the temperature distribution.

Internal Load Cell: permits sensitive measurement of axial load and displacement in mechanical testing, without correction for piston friction being required.

Additional features: Pore-fluid and torsion systems can be added at any time.

Australian Scientific Instruments Pty Ltd
111-113 Gladstone St,
Fyshwick ACT 2609 Australia
PO Box 857, Fyshwick ACT 2609
ACN 008 644 273

Tel: IDD (612) STD (02) 6280 7570
Fax: IDD (612) STD (02) 6280 4985
Email: askasi@asi.anutech.com.au
Web: http://www.anutech.com.au/asi/

A Subsidiary of Anutech Pty Ltd ACN 008 548 650

Incoherent Scatter: Theory, Practice and Science

D. Alcayde, Editor
EISCAT Technical Report 97/53, vi + 314 p, Nov. 1997.

This book is intended for use by graduate students for entering the field of Incoherent Scatter Research; it is felt however (and also hoped) that the various chapters of this book can be of some interest for more senior scientists.

Table of Contents:
Tor Hagfors, Plasma Fluctuations Excited by Charged Particle Motion and their Detection by Weak Scattering of Radio Waves
Wlodek Kofman, Plasma Instabilities and their Observations with the Incoherent Scatter Technique
Asko Huuskonen and Markku Lehtinen, Modulation of Radiowaves for Sounding the Ionosphere: Theory and Applications
Kristian Schlegel, The Use of Incoherent Scatter Data in Ionospheric and Plasma Research
Mike Lockwood, Solar Wind - Magnetosphere Coupling
Yohsuke Kamide, Aurora/Substorm Studies with Incoherent-Scatter Radars
Arthur D. Richmond, Ionosphere-Thermosphere Interactions at High Latitudes
Juergen Roettger, Radar Observations of the Middle and Lower Atmosphere

A limited number of copies is available on sale at cost by the EISCAT Scientific Association (Order Deadline 1 June 1998)

Book Order Form to be addressed to: EISCAT Scientific Association, Box 812, S-98128 Kiruna, Sweden
E-mail: Anette.Snallfot@eiscathq.irf.se

Special Order Form

Name: _____

Institute: _____

Address: _____

_____

_____

E-mail: _____

Incoherent Scatter: Theory, Practice and Science,
EISCAT Technical Report 97/53, 1997
Order Deadline: 1 June 1998

Number of Copies: _____ x 200 SEK each

Total amount to be billed: _____

Bill to: _____

_____

_____

_____

Geomagnetism and Aeronomy

(Proceedings of the Historical Session at EGS Vienna and IAGA Uppsaala, 1997)

During the EGS Assembly in Vienna (April 1997) a history session (Solar-Terrestrial Physics during the 19/20th centuries) has been organized. In the same year the History commission of IAGA started its session "Geomagnetism and aeronomy" in Uppsala. The selected lectures of both sessions are now published in a special book. This book can be ordered for DEM 30,- or USD 20,-. Please contact: Dr. Wilfried Schröder, Geophysical Station, Hechelstr. 8, D-28777 Bremen, Germany

Scientific Programme Overview

I. Society Symposia (EGS)

EGS1 **Tribute to Stephan Mueller**
01 Tectonics, structure and dynamics of the Alpine-Mediterranean System
Convener: J. Ansorge (Zürich), Co-Conveners: E. Banda (Barcelona), H.-G. Kahle (Zürich)
02 Evolution of the African-Eurasian plate boundary
Convener: J.E.T. Channell (Gainesville, FL), Co-Conveners: W.R. Jacoby (Mainz), S. Zerbini (Bologna)
03 Seismicity and seismotectonics of the Mediterranean region
Convener: M. Garcia-Fernandez (Barcelona), Co-Conveners: D. Mayer-Rosa (Zürich), G.F. Panza (Trieste)

EGS2 **Geophysical and geological signatures of past and present climate change**
Convener: I. Premoli-Silva (Milan), Co-Conveners: T.D. Herbert (Providence, RI), J. Maley (Montpellier)

EGS3 **Modelling techniques and joint inversion in Earth sciences**
Convener: H.-J. Götze (Berlin), Co-Conveners: B. Meurers (Wien), T.V. Romanyuk (Moscow), S. Schmidt (Berlin), G. Strykowski (Copenhagen)

EGS4 **Space techniques for acquisition of aeronomic-ionospheric data in the lower thermosphere**
Convener: G. Laneve (Roma), Co-Convener: F.A. Herrero (Greenbelt, MD)

II. Solid Earth Geophysics (SE)

SE1 **Open session on tectonophysics**
Convener: R. Sabadini (Milano)

SE2 **Dynamics, mineral physics and tomographic imaging of the Earth's mantle**
Convener: J.-P. Montagner (Paris), Co-Convener: H. Schmeling (Frankfurt/Main)

SE3 **Seismology and physics of the Earth's core and mantle**
Convener: R. Kind (Potsdam), Co-Conveners: A.W.B. Jacob (Dublin), M. Weber (Göttingen)

SE4 **Hot spots and plumes in the mantle**
CANCELLED, papers included in SE14

SE5 **Geodynamics of the lithosphere: images and models of active tectonics**
Convener: K.P. Furlong (University Park, PA), Co-Convener: M.J.R. Wortel (Utrecht)

SE6 **Post-glacial rebound and its influence on sea level, crustal deformation and gravity: new observations, modelling results and initiatives**
Convener: J.X. Mitrovica (Toronto), Co-Convener: L.L.A. Vermeersen (Stuttgart)

SE7 **Variations in the Earth's rotation: implications for the dynamics and structure of the mantle and for global change processes**
Convener: R. Sabadini (Milano), Co-Convener: R.J. O'Connell (Cambridge, MA)

SE8 **Sedimentary basin modelling and integration of geophysical and sedimentary geology data**
Convener: S. Cloetingh (Amsterdam), Co-Conveners: F. Horvath (Budapest), W. Sassi (Rueil Malmaison)

SE9 **Combined geophysical and geochemical approaches to study mid-ocean ridges**
CANCELLED, papers included in SE47.3

SE10 **Fault interaction and earthquake mechanics**
Convener: S. Das (Oxford), Co-Convener: M. Cocco (Rome)

SE11 **Lithospheric dynamic processes as seen from geomorphology**
Convener: J.-P. Brun (Rennes), Co-Convener: M. Kirby (Leeds)

SE12 **From the Arctic to the Mediterranean: salt, shale and igneous diapirs in and around Europe**
Convener: Y. Mart (Haifa), Co-Convener: B.C. Vendeville (Austin, TX)

SE13 **Intraplate earthquakes, stresses and large scale tectonic structure**
Convener: S. Gregersen (Copenhagen), Co-Convener: G.F. Panza (Trieste)

SE14 **Modern rifts: plumes, kinematic conditions and lithospheric inhomogeneities**
Convener: J. Deverchere (Villefranche-sur-Mer), Co-Conveners: U. Achauer (Strasbourg), U. Hansen (Münster)

SE15 **Crustal structure revealed by scientific drilling**
Convener: J. Lauterjung (Potsdam)

SE16 **3-D crustal imaging of France**
Convener: P. Ledru (Orleans), Co-Conveners: K. Fuchs (Karlsruhe), A. Galdeano (Paris)

SE17 **Dynamics of plate boudaries**
01 Geodynamics of collision belts: stacking and exhumation processes
Convener: A. Kilias (Thessaloniki), Co-Convener: U. Ring (Mainz)
02 Active deformation along plate boundaries: measurements and models
Convener: E. Calais (Valbonne), Co-Convener: S. Wdowinski (Ramat Aviv)
03 Seismological studies in convergent plate margins
Convener: E. Kissling (Zürich), Co-Convener: A. Polonia (Bologna)

SE18 **From EGT to EUROPROBE: joint European geoscientific initiatives**
CANCELLED, papers included in SE19

SE19 **The Trans European Suture Zone (TESZ)**
Convener: H. Thybo (Copenhagen), Co-Conveners: D.J. Blundell (Egham), D.G. Gee (Uppsala), A. Guterch (Warsaw), T.C. Pharaoh (Nottingham)

SE20 **Aspects of the Carpathian-East Alpine-Pannonian geodynamics: the PANCARDI approach**
Convener: C. Tomek (Salzburg), Co-Convener: F. Neubauer (Salzburg)

SE21 **Open session on seismology**
Convener: W. Rabbel (Kiel)

SE22 **Images of the continental lithosphere by active seismic methods**
Convener: W. Rabbel (Kiel), Co-Conveners: J. Gallart Muset (Barcelona), H. Thybo (Copenhagen)

NH3 **Earthquake risk mitigation** *(joint with SE)*
01 Models and methods in seismic hazard assessment
Convener: T.M. Tsapanos (Thessaloniki), Co-Convener: C.V. Christova (Sofia)
02 Seismic hazard evaluation in high seismicity areas by observing precursory phenomena
Convener: M.E. Contadakis (Thessaloniki), Co-Convener: J. Zschau (Potsdam)
03 Macroseismics: present state of intensity-assessment procedures and future perspectives
Convener: A. Tertulliani (Rome), Co-Convener: I. Cecic (Ljubljana)
04 Active fault and earthquake risk mitigation
Convener: A.A. Barka (Paris), Co-Convener: I.S. Stewart (Isleworth)
05 Landslide hazards in seismically active regions
Convener: J. Wasowski (Bari), Co-Convener: V. Del Gaudio (Bari)
06 Efficiency of building codes in the mitigation of the vulnerability
Convener: V. Petrini (Milano), Co-Convener: L.G. Pujades Beneit (Barcelona)
07 Seismic microzonation in urban areas
Convener: A. Roca (Barcelona), Co-Convener: C.S. Oliveira (Lisboa)

SE23 **Seismic anisotropy, scattering and attenuation**
Convener: J. Plomerova (Praha), Co-Convener: C.J. Bean (Dublin)

SE24 **Seismic rupture processes: confrontation of observations and theory**
Convener: P.F. Ihmlé (Zürich), Co-Convener: A. Deschamps (Valbonne)

SE24.1 **The Umbria-Marche earthquake sequence of 1997: first results**
Convener: P.F. Ihmlé (Zürich), Co-Convener: A. Amato (Rome)

SE25 **High-resolution seismics: theory, methods and applications**
Convener: H. Lykke-Andersen (Aarhus), Co-Convener: G. Brancolini (Trieste)

SE26 **3-D seismic modelling and high performance computing**
Convener: F.J. Seron (Zaragoza), Co-Conveners: F. Maggio (Cagliari), F.J. Sabadell (Zaragoza)

SE27 **Mechanics of tectonic and volcanic earthquakes** *(co-sponsored by NP)*
Convener: J. Sileny (Praha), Co-Convener: G.F. Panza (Trieste)

SE28 **Open session on volcanology, geochemistry and petrology**
Convener: P. Jakes (Praha)

SE29 **Continental roots: their petrology, geochemistry and geophysical features**
Convener: P. Jakes (Praha), Co-Convener: M. Dragoni (Bari)

SE30 **Degassing of high-level magma chambers and the evolution of magmatic-hydrothermal systems**
CANCELLED, papers included in SE33

SE31 **Mechanics and thermalfluid-dynamics of volcanic processes: modelling, observations and laboratory experiments** *(co-sponsored by NP)*
Convener: G. de Natale (Napoli), Co-Conveners: P. Allard (Gif-sur-Yvette), M. Bonafede (Bologna)

SE32 **Crustal melting in nature and experiment**
Convener: J. Kotkova (Praha), Co-Convener: A. Patino-Douce (Athens, GA)

SE33 **Pre-eruptive processes**
Convener: J. Marti (Barcelona), Co-Conveners: M.R. Carroll (Bristol), P. Fulignati (Pisa), A. Gudmundsson (Bergen)

NH4 **Volcanic hazards: field studies, instrumentation and observation networks** *(joint with SE)*
Convener: C. Kilburn (London), Co-Convener: G. Vougioukalakis (Athens)

SE34 **Rockmagnetism, palaeomagnetism and environmental magnetism**
Convener: V. Hoffmann (Tübingen/Mississauga)
01 New challenges in rockmagnetism, palaeomagnetism and environmental magnetism
Convener: V. Hoffmann (Tübingen/Mississauga), Co-Convener: E. Petrovsky (Praha)
02 Past and present geomagnetic field
Convener: M. Prevot (Montpellier), Co-Conveners: J.J. Love (Leeds), E. Schnepp (Einbeck)
03 Effect of chemical alteration on magnetization
Convener: Ö. Özdemir (Mississauga), Co-Convener: A.P. Roberts (Southampton)
04 Sediment magnetic records of climatic cycles and events
Convener: D. Williamson (Minneapolis, MN), Co-Convener: C.E. Geiss (Minneapolis, MN)
05 New challenges in environmental research: magneto-monitoring of anthropic influence to ecosystems
Convener: R. Scholger (Frohnleiten), Co-Convener: P. Rochette (Aix-en-Provence)
06 Palaeomagnetism and tectonic evolution of the Mediterranean area
Convener: J.M. Pares (Ann Arbor, MI), Co-Convener: J. Dinarès-Turell (Utrecht)

SE35 **Archaeology and archaeomagnetism**
Convener: J. Fassbinder (München), Co-Convener: V. Hoffmann (Tübingen/Mississauga)
01 Archaeological prospection
Convener: A. Schmidt (Bradford), Co-Convener: J. Fassbinder (München)

02 Archaeomagnetism and secular variations
Convener: M. Kovacheva (Sofia),
Co-Convener: A. Chauvin (Rennes)

SE36 **Potential fields in geodesy, geophysics and geology** *(co-sponsored by G)*
Convener: W.R. Jacoby (Mainz), Co-Conveners: C. Braitenberg (Trieste), E.W. Grafarend (Stuttgart)

SE37 **Regional magnetic surveys: data, models and charts**
Convener: A. Best (Niemegk), Co-Convener: M. Chiappini (Rome)

SE38 **Long term global geophysical data products from remote sensing**
Convener: O. Arino (Frascati), Co-Convener: Y.H. Kerr (Toulouse)

SE39 **Physical properties of geomaterials**

01 Open session on physical properties of geomaterials
Convener: J.L. Urai (Aachen), Co-Convener: E. Huenges (Potsdam)

02 Imaging, analysing and modelling pore structure in geomaterials
Convener: C. David (Strasbourg),
Co-Conveners: D.L. Olgaard (Houston, TX), A. Rodriguez Rey (Oviedo)

03 The effect of rock micro-structure and fluids on rock physical properties
Convener: P.W.J. Glover (Aberdeen),
Co-Conveners: E. Huenges (Potsdam), I. Main (Edinburgh), J. Safanda (Praha)

04 Pore pressure as a geomechanical and geophysical parameter
Convener: H.-J. Kümpel (Bonn),
Co-Convener: J.-R. Grasso (Grenoble)

05 Physical properties of partially molten rocks
Convener: L.N. Dell'Angelo (Houston, TX),
Co-Convener: C. Rosenberg (Giessen)

06 Physical properties of mudrocks
Convener: S.T. Horseman (Nottingham),
Co-Convener: J.L. Urai (Aachen)

SE40 **Petrophysical control of anthropogenic and natural Earth's processes**
CANCELLED, papers included in SE39.3

SE41 **Electro-magnetic and electro-kinetic properties of rocks: integration of laboratory, borehole and field measurements**
Convener: P.W.J. Glover (Aberdeen),
Co-Conveners: A. Revil (Aix-en-Provence), J.B. Stoll (Göttingen)

SE42 **Physical properties of fault zones**
Convener: E.J.M. Willemse (Rijswijk),
Co-Convener: D.J. Sanderson (Southampton)

SE43 **Advances in the physical interpretation of electromagnetic soundings**
Convener: G. Marquis (Strasbourg),
Co-Convener: F. Perrier (Bruyeres le Chatel)

SE44 **Can electromagnetic images constrain geophysical interpretation of tectonically active environments?**
Convener: F. Simpson (Göttingen), Co-Conveners: A. Manzella (Pisa), P. Ritter (Potsdam), P.-A. Schnegg (Neuchatel), N. Smiljanic (Grocka)

SE45 **Observations of the electromagnetic field of the Earth in the Alpine-Mediterranean region**
CANCELLED, papers included in SE44

SE46 **Open session on marine geophysics**
Convener: J. Danobeitia (Barcelona)

SE47 **Structure and composition of oceanic lithosphere**
Convener: J. Danobeitia (Barcelona)

01 Rifted margins
Convener: T.J. Reston (Aberdeen),
Co-Convener: J.-C. Sibuet (Plouzane)

02 Lithospheric structure in a hotspot frame
CANCELLED, papers included in SE47.3

03 Processes of crustal accretion at mid-oceanic-ridges
Convener: J. Escartin (Edinburgh), Co-Conveners: E. Bonatti (Bologna), J.P. Canales (Woods Hole, MA), J.R. Cochran (Palisades, NY), R. Hekinian (Plouzane)

04 Collisional and transform plate boundaries and subduction zones
Convener: T.J. Henstock (Houston, TX),
Co-Convener: C.R. Ranero (Kiel)

SE48 **Gas hydrates in nature: results from geophysical and geochemical studies**
Convener: I.A. Pecher (Woods Hole, MA),
Co-Convener: N. Kukowski (Kiel)

SE49 **Marine magnetics 35 years after Vine-Matthews-Morley discovery** *(in memory of D. Matthews)*
Convener: J. Dyment (Plouzane), Co-Convener: U. Körner (Montpellier)

SE50 **Recent marine geological and geophysical investigation in the Mediterranean and Black Sea**
Convener: M. Ergün (Izmir), Co-Conveners: M.K. Ivanov (Moscow), J.M. Woodside (Amsterdam)

SE51 **Structures and processes in sedimentary fans**
Convener: G. Uenzelmann-Neben (Bremerhaven),
Co-Convener: L. Droz (Brest)

SE52 **Spontaneous globally synchronized variations of physical parameters** *(co-sponsored by G)*
Convener: I.I. Rokityansky (Kiev),
Co-Conveners: C. Denis (Liège), P. Varga (Sopron)

G7 **Joint EGS/AGU Symposium on geodetic observation and geophysical interpretation of mass movements in the Earth system** *(joint with SE)*
Convener: J.O. Dickey (Pasadena, CA),
Co-Convener: C. Reigber (Potsdam)

01 Solid Earth and core
Convener: B. Richter (Frankfurt/Main)

02 Ocean and hydrosphere
Convener: B.F. Chao (Greenbelt, MD)

03 Cryosphere
Convener: R. Dietrich (Dresden)
04 Atmosphere
Convener: A. Geiger (Zürich)
05 Interactions between the components of the Earth system
Convener: S. Zerbini (Bologna)

G12 **Effects of the atmosphere, ocean and core on nutation, polar motion and length of day** *(joint with SE)*
Convener: H. Schuh (München), Co-Convener: D.A. Salstein (Cambridge, MA)
01 Effects of the atmosphere
Convener: P. Gegout (Pasadena, CA)
02 Effects of the ocean
Convener: J. Sündermann (Hamburg)
03 Effects of the core
Convener: V.M.A. Dehant (Brussels)
04 Models, measurements and analysis of the Earth rotation
Convener: H. Schuh (München)

OA17 **Climate variability: models and observations** *(joint with SE)*
Convener: G.J. Komen (De Bilt)
01 West African monsoon studies
Convener: C.D. Thorncroft (Reading)
02 Natural climate variability on the basis of past observations
Convener: J.-C. Duplessy (Gif-sur-Yvette)
03 Climate variability: time scale interactions
Convener: J.M. Slingo (Reading)
04 Clouds in the climate system: observations and modelling
Convener: M. Desbois (Palaiseau)
05 Prediction and detection of anthropogenic climate change
Convener: T.C. Johns (Bracknell)

NP1.01 **Scaling, multifractals and nonlinearity in Solid Earth** *(joint with SE)*
Convener: J. Schmittbuhl (Paris), Co-Conveners: P. Bak (Upton, NY), D.L. Turcotte (Ithaca, NY)

NP3.06 **Mixing in the interior of the Earth (recycling of subducted slabs)** *(joint with SE)*
Convener: Y. Ricard (Lyon)

III. Geodesy (G)

G1 **Environmental effects on gravity and intercomparisons with other techniques**
Convener: R.G. Hipkin (Edinburgh),
Co-Convener: T.M. van Dam (Boulder, CO)

G2 **Recent crustal movements of coastal regions: new geodetic, geologic and geophysical results**
Convener: P.A. Pirazzoli (Meudon),
Co-Convener: L. Bastos (Vila Nova de Gaia)

G3 **Geophysical applications of radar interferometry**
Convener: D. Massonnet (Toulouse),
Co-Convener: K. Feigl (Toulouse)

G4 **Precise satellite orbits for geophysical applications**
Convener: M. Rothacher (Bern), Co-Convener: R.J. Eanes (Austin, TX)

G5 **Ocean modelling from altimetry and remote sensing** *(co-sponsored by OA)*
Convener: P. Knudsen (Copenhagen), Co-Convener: P.Y. Le Traon (Ramonville Saint-Agne)

G6 **High resolution monitoring of land and ice surface with altimetry and SAR interferometry**
Convener: R. Klees (Delft), Co-Convener: F. Remy (Toulouse)

G7 **Joint EGS/AGU Symposium on geodetic observation and geophysical interpretation of mass movements in the Earth system** *(co-sponsored by SE)*
Convener: J.O. Dickey (Pasadena, CA),
Co-Convener: C. Reigber (Potsdam)
01 Solid Earth and core
Convener: B. Richter (Frankfurt/Main)
02 Ocean and hydrosphere
Convener: B.F. Chao (Greenbelt, MD)
03 Cryosphere
Convener: R. Dietrich (Dresden)
04 Atmosphere
Convener: A. Geiger (Zürich)
05 Interactions between the components of the Earth system
Convener: S. Zerbini (Bologna)

G8 **Integrated studies of sea-level fluctuations and crustal movements in the Mediterranean and adjacent regions**
Convener: A. Cazenave (Toulouse),
Co-Convener: H.-P. Plag (Honefoss)

G9 **Atmospheric sounding with GPS**
Convener: G. Blewitt (Newcastle-upon-Tyne),
Co-Convener: A. Niell (Westford, MA)

G10 **Satellite and airborne gravimetric and altimetric techniques**
Convener: R. Forsberg (Copenhagen),
Co-Convener: R. Haagmans (Delft)

G11 **Recent advances in precise geoid determination methodology**
Convener: I.N. Tziavos (Thessaloniki),
Co-Convener: M. Vermeer (Masala)

G12 **Effects of the atmosphere, ocean and core on nutation, polar motion and length of day** *(co-sponsored by SE)*
Convener: H. Schuh (München), Co-Convener: D.A. Salstein (Cambridge, MA)
01 Effects of the atmosphere
Convener: P. Gegout (Pasadena, CA)
02 Effects of the ocean
Convener: J. Sündermann (Hamburg)
03 Effects of the core
Convener: V.M.A. Dehant (Brussels)
04 Models, measurements and analysis of the Earth rotation
Convener: H. Schuh (München)

G13 **Techniques for Earth observation**
CANCELLED, papers included in G15

G14 **Contribution of permanent geodetic network to Earth Science in Europe**
Convener: E. Calais (Valbonne), Co-Convener: B.A.C. Ambrosius (Delft)

G15 **Instrumental challenges in geodesy**
Convener: P. Tomasi (Bologna), Co-Conveners: G. Bianco (Matera), J.J. Degnan (Greenbelt, MD), C.R. Wilson (Washington, DC)

G16 **Geodetic and geodynamic achievements of the CEI (Central European Initiative)**
Convener: J. Sledzinski (Warsaw), Co-Convener: J. Kostelecky (Prague)

SE36 **Potential fields in geodesy, geophysics and geology** *(joint with G)*
Convener: W.R. Jacoby (Mainz), Co-Conveners: C. Braitenberg (Trieste), E.W. Grafarend (Stuttgart)

SE52 **Spontaneous globally synchronized variations of physical parameters** *(joint with G)*
Convener: I.I. Rokityansky (Kiev), Co-Conveners: C. Denis (Liège), P. Varga (Sopron)

IV. Hydrological Sciences (HS)

HSA1 **Hydrology and the Earth's crust**
01 Characterization and modelling of the 2-D and 3-D structure of porous and fractured formations
Convener: P. Huggenberger (Basel), Co-Convener: R. Mackay (Birmingham)
02 Identification of model parameters in groundwater hydrology
Convener: M. Giudici (Milano), Co-Convener: G. de Marsily (Paris)
03 Reactive mass transport: experimental studies of chemical, colloidal and biological processes
Convener: P. Gouze (Montpellier), Co-Convener: G. Schäfer (Strasbourg)
04 Coastal aquifer dynamics and groundwater recharge
Convener: L. Candela (Barcelona), Co-Convener: R. Munoz-Carpena (Tenerife)

HSA2 **Hydrology and landforms and fluvial systems**
01 Measurement of bedload and suspended sediment in turbulent flow
Convener: J.B. Laronne (Beer-Sheva), Co-Convener: P. Ergenzinger (Berlin)
02 Morphological processes at the hillslope and river scale
Convener: G. Roth (Genova), Co-Convener: V. Copertino (Potenza)
03 Sediment and contaminant transfers at the land/ocean interface
Convener: G. Leeks (Wallingford), Co-Convener: A. Monaco (Perpignan)

HSA3 **Open session on hydrology and climate**
Convener: J.P. O'Kane (Cork), Co-Conveners: O. Bonacci (Split), A. Pulido-Bosch (Granada)

HSA4 **Open session on hydrology and weather**
Convener: P. Burlando (Zürich)

NH2 **Meteorological and hydrological hazards** *(joint with HS)*
01 Uncertainty assessment in meteo-hydrologic warning
Convener: E. Todini (Bologna), Co-Convener: F. Castelli (Perugia)
02 Prediction of hazardous events of meteorological origin
Convener: S. Tibaldi (Bologna), Co-Convener: S. Alonso (Palma de Mallorca)
03 Flood hazards and flood risk: regional analysis of extremes *(co-sponserd by OA)*
Convener: P. Bois (St. Martin d'Heres), Co-Convener: V. Oancea (Bucharest)
04 Modelling and flood mapping in rural and urban areas
Convener: G. Oberlin (Lyon), Co-Convener: G. Roth (Genova)
05 Shallow landslides and rainfall triggering
Convener: M. Sorriso-Valvo (Roges di Rende), Co-Convener: P. Versace (Montalto Uffugo Scalo)

HSA5 **Open session on hydrology and surface hydrological processes**
Convener: G. Kiely (Cork), Co-Convener: H. Bormann (Bonn)

HSA6 **Hydrology and soil processes**
01 Recent advances in tracers in vadose zone hydrology
Convener: S.W. Tyler (Grenoble), Co-Conveners: W.M. Edmunds (Wallingford), M. Flury (Pullman, WA)), B.R. Scanlon (Austin, TX)
02 Scale problems of soil hydrological measuring techniques
Convener: B. Huwe (Bayreuth), Co-Convener: S. Scherrer (Zürich)

HSA7 **Open session on hydrology and living communities**
Convener: J.P. O'Kane (Cork)

HSA8 **Hydrology and chemical processes - restoration of aquifers: natural and artificial attenuation**
01 Natural attenuation and intrinsic bioremediation: field studies
Convener: P. Grathwohl (Tübingen), Co-Convener: K.-U. Totsche (Bayreuth)
02 New developments in in-situ treatment of subsurface contaminations
Convener: H.H.M. Rijnaarts (Apeldoorn), Co-Convener: T.N.P.. Bosma (Apeldoorn)
03 Redox processes in aquifers
Convener: P. Behra (Strasbourg), Co-Convener: M. Isenbeck-Schröter (Heidelberg)

HSA9 **Hydrology and applied mathematics**
01 Process representation in hydrological models - can it be achieved?
Convener: F. Gallart (Barcelona), Co-Convener: S.M. White (Durham)

NP1.02 **Scaling, multifractals and nonlinearity in hydrology** *(joint with HS)*
Convener: C. Onof (London), Co-Conveners: J. Olsson (Fukuoka), D. Veneziano (Cambridge, MA)

HSB1 **Water resources research**
01 Water resources of international river basins
Convener: H.H.G. Savenije (Delft), Co-Convener: P. van der Zaag (Delft)

02 Influence of environmental and anthropogenic change on flood processes *(co-sponsored by NH)*
Convener: G. Blöschl (Wien), Co-Convener: P. Burlando (Zürich)

03 Remote sensing and GIS in hydrology
Convener: F. Baret (Avignon), Co-Conveners: T. Estrela (Madrid), A. Stips (Ispra)

04 Influence of landuse and moisture feedback on continental rainfall
Convener: H.H.G. Savenije (Delft), Co-Conveners: A. Bronstert (Potsdam), U. Ulbrich (Köln)

HSB2 Water resources engineering and management

01 Water scarcity
Convener: H.H.G. Savenije (Delft), Co-Convener: M. Bruen (Dublin)

02 Sustainable development of watersheds and river processes
Convener: H.M. Habersack (Wien), Co-Convener: M. de Groen (Delft)

03 Groundwater systems and management
Convener: M.Kh. Kholghi (Karaj), Co-Convener: L. Candela (Barcelona)

04 Resource development and management in karst aquifer systems
CANCELLED, papers included in HSA3

HSC1 Special hydrological symposia

01 The French National Programme in Hydrology
Convener: M. Vauclin (Grenoble)

02 Dryland degradation in the Mediterranean: threat, processes and mitigation
Convener: J.C. Bathurst (Newcastle-upon-Tyne), Co-Convener: G. Quaranta (Potenza)

03 Fire: impact on hydrology, sediment yield and ecosystems of Mediterranean lands
Convener: J.M. Moreno (Toledo), Co-Convener: S. Rambal (Montpellier)

04 Sources and transfer of water and sediment in Mediterranean river basins
Convener: M. Sala (Barcelona), Co-Convener: M. Inbar (Haifa)

05 Catchment management in the Mediterranean for efficient water use
Convener: T. Estrela (Madrid), Co-Convener: D. Jamieson (Newcastle upon Tyne)

V. Oceans and Atmosphere (OA)

OA1 The thermohaline circulation
Convener: A. Colin de Verdiere (Brest), Co-Convener: F. Schott (Kiel)

OA2 Processes in regions of oceanic time series stations
Convener: T.J. Müller (Kiel), Co-Convener: R. Lukas (Honolulu, HI)

OA3 The North Atlantic Oscillation: decadal variability in ocean and atmosphere
Convener: A. Hense (Bonn), Co-Conveners: S. Rahmstorf (Potsdam), G. Reverdin (Toulouse)

OA4 Circulation variability at mesoscale
Convener: C. Millot (La Seyne), Co-Convener: A.M. Treguier (Plouzane)

OA5 Open session on coastal/shelf-sea dynamics
Convener: A. Lehmann (Kiel), Co-Convener: G.I. Shapiro (Moscow)

OA6 Dynamics of the polar ocean and its coupling to sea ice
Convener: A.J. Willmott (Staffordshire), Co-Convener: P. Lemke (Kiel)

OA7 Antarctic ocean circulation: observations and models
Convener: A. Beckmann (Bremerhaven), Co-Convener: M.A. Garcia (Barcelona)

OA8 The Mediterranean Sea: general circulation variability and related processes
Convener: N. Pinardi (Bologna), Co-Convener: U. Send (Kiel)

G5 Ocean modelling from altimetry and remote sensing *(joint with OA)*
Convener: P. Knudsen (Copenhagen), Co-Convener: P.Y. Le Traon (Ramonville Saint-Agne)

OA9 Basic turbulence studies
Convener: A. Petrosyan (Moscow), Co-Convener: T. Gerz (Wessling)

OA10 Fluxes over terrestrial surfaces
Convener: N.O. Jensen (Roskilde)

01 Surface fluxes in non-homogeneous terrain
Convener: Th. Foken (Bayreuth)

02 Long term measurements of surface fluxes
Convener: R. Valentini (Viterbo)

OA11 Mesoscale transport of air pollution, including land/sea areas
Convener: T. Mikkelsen (Roskilde), Co-Convener: B. Artinano (Madrid)

OA12 Extreme weather events in the Mediterranean
Convener: F. Prodi (Bologna), Co-Convener: A.E. Eidelman (Beer-Sheva)

OA13 Cyclogenesis and fronts: FASTEX
Convener: J.-P. Chalon (Toulouse), Co-Convener: A.J. Thorpe (Reading)

OA14 Parametrizations in large scale atmospheric models
Convener: P. Viterbo (Reading)

01 Intercomparison and validation of the ocean-atmosphere flux fields
Convener: S. Gulev (Moscow), Co-Convener: P.K. Taylor (Southampton)

02 Major systematic errors in global coupled models
Convener: D.B. Stephenson (Toulouse), Co-Convener: M.A. Balmaseda (Reading)

03 Sensitivity of radiative perturbations in global coupled models
Convener: O. Boucher (Villeneuve d'Ascq)

ST2 Open session on the middle atmosphere *(joint with OA)*
Convener: M. Dameris (Wessling), Co-Convener: B.C. Krüger (Lausanne)

ST16 Stratosphere-troposphere-exchange *(joint with OA)*
Convener: V. Wirth (München), Co-Convener: P.H. Haynes (Cambridge)

OA15 **Clouds and their impact on radiation and photo-chemical processes**
Convener: E. Raschke (Geesthacht)
01 Remote sensing of clouds and aerosols
Convener: E. Raschke (Geesthacht)
02 Modelling of cloud systems
Convener: N. Mölders (Leipzig)
03 Radiative transfer and budget
Convener: A. Ohmura (Zürich)
04 Photo-chemical processes in clouds
Convener: A.I. Flossmann (Aubiere)

OA16 **Interaction of biogenic and anthropogenic compouds in the Mediterranean and its influence on atmospheric chemistry**
Convener: G. Seufert (Ispra), Co-Convener: N. Hewitt (Lancaster)

OA17 **Climate variability: models and observations** *(co-sponsored by SE)*
Convener: G.J. Komen (De Bilt)
01 West African monsoon studies
Convener: C.D. Thorncroft (Reading)
02 Natural climate variability on the basis of past observations
Convener: J.-C. Duplessy (Gif-sur-Yvette)
03 Climate variability: time scale interactions
Convener: J.M. Slingo (Reading)
04 Clouds in the climate system: observations and modelling
Convener: M. Desbois (Palaiseau)
05 Prediction and detection of anthropogenic climate change
Convener: T.C. Johns (Bracknell)

ST14 **Solar imprints in terrestrial archives** *(joint with OA)*
Convener: G. Cini-Castagnoli (Torino)

OA18 **Heterogeneous and homogeneous chemistry of reactive halogen compounds in the lower troposphere** *(co-sponsored by ST)*
Convener: U. Platt (Heidelberg), Co-Convener: G.K. Moortgat (Mainz)

OA19 **Free-radicals in the troposphere** *(co-sponsored by ST)*
Convener: H.-P. Dorn (Jülich), Co-Convener: A. Volz-Thomas (Jülich)

OA20 **Radiogenic isotopes as tracers of source-areas for aerosols, suspended matter and sediments** *(co-sponsored by ST)*
Convener: F.E. Grousset (Talence), Co-Convener: F. Sirocko (Potsdam)

OA21 **Biogeochemical interactions in the coastal marine environment**
Convener: A. Monaco (Perpignan), Co-Convener: N.B. Price (Edinburgh)

NP3.04 **Biological processes and mixing in the ocean** *(joint with OA)*
Convener: K.J. Richards (Southampton)

NP3.05 **Transport and mixing of chemical species in the atmosphere, including urban and regional problems in the troposphere and global-scale problems in the troposphere and stratosphere** *(joint with OA & ST)*
Convener: P.H. Haynes (Cambridge)

OA22 **Biogeochemical processes in submarine hydrothermal systems along the Hellenic Volcanic Island Arc**
Convener: S. Varnavas (Patras), Co-Convener: P.R. Dando (Gwynedd)

ST15 **Atmospheric ozone** *(joint with OA)*
Convener: M.-M. Hirschberg (Freising/ Weihenstephan)
01 Modelling and validation with satellite data
Convener: I.M. Vardavas (Crete), Co-Convener: F.W. Taylor (Oxford)
02 Polar ozone
Convener: A.A. Krivolutsky (Dolgoprudny)
03 Changes in UV-B radiation
Convener: B.C. Krüger (Lausanne)
04 Tropospheric ozone with emphasis on the Mediterranean region
Convener: C. Varotsos (Athens)
05 Ozone as a climate gas
Convener: K.P. Shine (Reading), Co-Convener: D.A. Hauglustaine (Boulder, CO)

ST17 **Aviation and space flight** *(joint with OA)*
01 Aviation impact on the atmosphere
Convener: H. Kelder (De Bilt), Co-Convener: R. Sausen (Wessling)
02 Air traffic meteorology and weather impact on aviation
Convener: T. Hauf (Wessling), Co-Conveners: J.-C. André (Toulouse), J.-M. Carriere (Toulouse), A. Corjon (Toulouse)
03 Air traffic meteorology
CANCELLED, papers included in ST17.2

OA23 **Operational oceanography: existing systems, developments and future potential**
Convener: R.A. Flather (Merseyside), Co-Convener: M. Bohle-Carbonell (Brussels)

OA24 **Marine data management: assimilation, hindcasting and nowcasting**
Convener: G. Evensen (Solheimsviken), Co-Convener: H. Gerritsen (Delft)

OA25 **Developments in weather forecasting**
Convener: N. Gustafsson (Norrköping), Co-Convener: P. Benard (Toulouse)

OA26 **Will the probabilistic approach be the future for numerical weather predictions?**
Convener: R. Buizza (Reading), Co-Convener: Z. Toth (Camp Springs, MD)

NP1.03 **Scaling, multifractals and nonlinearity in oceans & atmosphere** *(joint with OA)*
Convener: F. Schmitt (Brussels), Co-Conveners: R.F. Cahalan (Greenbelt, MD), V.V. Yanovsky (Kharkov)

NH2.03 **Flood hazards and flood risk: regional analysis of extremes** *(joint with OA)*
Convener: P. Bois (St. Martin d'Heres), Co-Convener: V. Oancea (Bucharest)

OA27 **Marine tropospheric chemistry**
Convener. T. Brauers (Jülich), Co-Convener: O. Schrems (Bremerhaven)

VI. Solar-Terrestrial Sciences (ST)

ST1 **Review session on solar-terrestrial sciences**
Convener: P. Fabian (Freising/Weihenstephan), Co-Convener: M.A. Hapgood (Oxfordshire)

ST2 **Open session on the middle atmosphere** *(co-sponsored by OA)*
Convener: M. Dameris (Wessling), Co-Convener: B.C. Krüger (Lausanne)

ST3 **Open session on the ionosphere and thermosphere**
Convener: D. Fontaine (Velizy), Co-Convener: K. Schlegel (Katlenburg-Lindau)

ST4 **Open session on the magnetosphere**
Convener: M.J. Rycroft (Illkirch), Co-Convener: I. Sandahl (Kiruna)

ST5 **Open session on solar and heliospheric physics**
Convener: R.G. Marsden (Noordwijk), Co-Convener: E. Marsch (Katlenburg-Lindau)

ST6 **Nonlinear dynamics in the heliosphere** *(co-sponsored by NP)*
Convener: W.M. Macek (Warsaw), Co-Conveners: V. Carbone (Cosenza), R. Grappin (Meudon)

ST7 **Nonlinear processes in the ionosphere and magnetosphere** *(co-sponsored by NP)*
Convener: M.J. Rycroft (Illkirch), Co-Convener: D. Fontaine (Velizy)

ST8 **The high-latitude ionosphere and magnetosphere: coupling and solar wind forcing**
Convener: J. Woch (Katlenburg-Lindau), Co-Convener: J.-P. Villain (Orleans)

ST9 **Effects of geomagnetic storms and high-energy particle events on the ionosphere, thermosphere, and middle atmosphere**
Convener: J. Lastovicka (Praha), Co-Convener: M. Förster (Potsdam)

ST10 **Ionospheric modelling and predictions**
Convener: R. Hanbaba (Lannion), Co-Convener: B. Zolesi (Rome)

ST11 **New results on the dynamics of the Earth's magnetosphere from the Interball multi-spacecraft missions**
Convener: J.-A. Sauvaud (Toulouse), Co-Convener: L.M. Zelenyi (Moscow)

ST12 **Theory and simulations of solar system plasmas**
Convener: J. Büchner (Katlenburg-Lindau), Co-Convener: G. Belmont (Velizy)

ST13 **The Sun: SOHO and related results**
01 Plasma diagnosis of the solar atmosphere by photon spectroscopy and remote particle measurements
Convener: M. Hilchenbach (Katlenburg-Lindau), Co-Convener: V. Hansteen (Oslo)
02 Multi-wavelength observations of solar atmospheric structure, evolution and eruptions
Convener: R.A. Harrison (Oxfordshire), Co-Convener: J.-P. Delaboudiniere (Orsay)

ST14 **Solar imprints in terrestrial archives** *(co-sponsored by OA)*
Convener: G. Cini-Castagnoli (Torino)

ST15 **Atmospheric ozone** *(co-sponsored by OA)*
Convener: M.-M. Hirschberg (Freising/Weihenstephan)
01 Modelling and validation with satellite data
Convener: I.M. Vardavas (Crete), Co-Convener: F.W. Taylor (Oxford)
02 Polar ozone
Convener: A.A. Krivolutsky (Dolgoprudny)
03 Changes in UV-B radiation
Convener: B.C. Krüger (Lausanne)
04 Tropospheric ozone with emphasis on the Mediterranean region
Convener: C. Varotsos (Athens)
05 Ozone as a climate gas
Convener: K.P. Shine (Reading), Co-Convener: D.A. Hauglustaine (Boulder, CO)

ST16 **Stratosphere-troposphere-exchange** *(co-sponsored by OA)*
Convener: V. Wirth (München), Co-Convener: P.H. Haynes (Cambridge)

ST17 **Aviation and space flight** *(co-sponsored by OA)*
01 Aviation impact on the atmosphere
Convener: H. Kelder (De Bilt), Co-Convener: R. Sausen (Wessling)
02 Air traffic meteorology and weather impact on aviation
Convener: T. Hauf (Wessling), Co-Conveners: J.-C. André (Toulouse), J.-M. Carriere (Toulouse), A. Corjon (Toulouse)
03 Air traffic meteorology
CANCELLED, papers included in ST17.2

OA18 **Heterogeneous and homogeneous chemistry of reactive halogen compounds in the lower troposphere** *(joint with ST)*
Convener: U. Platt (Heidelberg), Co-Convener: G.K. Moortgat (Mainz)

OA19 **Free-radicals in the troposphere** *(joint with ST)*
Convener: H.-P. Dorn (Jülich), Co-Convener: A. Volz-Thomas (Jülich)

OA20 **Radiogenic isotopes as tracers of source-areas for aerosols, suspended matter and sediments** *(joint with ST)*
Convener: F.E. Grousset (Talence), Co-Convener: F. Sirocko (Potsdam)

NP3.05 **Transport and mixing of chemical species in the atmosphere, including urban and regional problems in the troposphere and global-scale problems in the troposphere and stratosphere** *(joint with OA & ST)*
Convener: P.H. Haynes (Cambridge)

VII. Planetary and Solar System Sciences (PS)

PS1 **Planetary interiors**
Convener: P. Lognonné (Saint Maur), Co-Convener: T.V. Gudkova (Moscow)

PS2 **Evolution and state of surfaces, crusts and lithospheres of planetary bodies**
Convener: P. Janle (Kiel), Co-Convener: A.T. Basilevsky (Moscow)

PS3 **Atmospheres of terrestrial planets, outer planets and moons**
Convener: F. Hourdin (Paris), Co-Convener: S.R. Lewis (Oxford)

PS4 **Planetary magnetospheres and ionospheres**
Convener: R. Prangé (Orsay), Co-Conveners: M.K. Dougherty (London), K. Sauer (Katlenburg-Lindau)

PS5 **Small bodies of the solar system**
Convener: G.H. Schwehm (Noordwijk), Co-Convener: S. Ulamec (Köln)

PS6 **Solar system radiophysics and related topics**
Convener: C.H. Barrow (Katlenburg-Lindau), Co-Convener: M.G. Aubier (Meudon)

PS7 **Laboratory studies and observations on dust, ices and organics in the solar system**
Convener: P. Ehrenfreund (Leiden), Co-Convener: H. Kochan (Köln)

PS8 **Meteorites and cosmochemistry**
Convener: E. Jagoutz (Mainz), Co-Convener: F. Robert (Paris)

PS9 **Lunar exploration**
Convener: B.H. Foing (Noordwijk), Co-Convener: H. Hoffmann (Berlin)

PS10 **Interrelations between asteroids, near-Earth asteroids and meteorites**
Convener: C. Froeschlé (Nice), Co-Convener: A. Morbidelli (Nice)

PS11 **Observation of solar-system objects with ISO**
Convener: T. Encrenaz (Meudon), Co-Convener: E. Grün (Heidelberg)

PS12 **Planet formation and extra-solar planets**
Convener: P. Barge (Marseille), Co-Convener: G.E. Morfill (Garching)

PS13 **Mars Pathfinder Mission: Update**
Convener: H.U. Keller (Katlenburg-Lindau), Co-Conveners: M.P. Golombek (Pasadena, CA), H. Wänke (Mainz)

VIII. Nonlinear Processes in Geophysics (NP)

NP1 **Scaling, multifractals and nonlinear variability in geophysics**
Convener: D. Schertzer (Paris), Co-Convener: S.M. Lovejoy (Montreal)
01 Scaling, multifractals and nonlinearity in Solid Earth *(co-sponsored by SE)*
Convener: J. Schmittbuhl (Paris), Co-Conveners: P. Bak (Upton, NY), D.L. Turcotte (Ithaca, NY)
02 Scaling, multifractals and nonlinearity in hydrology *(co-sponsored by HS)*
Convener: C. Onof (London), Co-Conveners: J. Olsson (Fukuoka), D. Veneziano (Cambridge, MA)
03 Scaling, multifractals and nonlinearity in oceans & atmosphere *(co-sponsored by OA)*
Convener: F. Schmitt (Brussels), Co-Conveners: R.F. Cahalan (Greenbelt, MD), V.V. Yanovsky (Kharkov)
04 Scaling, multifractals and natural/ man-made hazards *(co-sponsored by NH)*
Convener: G.S. Salvadori (Milano), Co-Convener: B.D. Malamud (Ithaca, NY)

ST6 **Nonlinear dynamics in the heliosphere** *(joint with NP)*
Convener: W.M. Macek (Warsaw), Co-Conveners: V. Carbone (Cosenza), R. Grappin (Meudon)

NP2 **Predictability & time series analysis**
01 Quantifying predictability
Convener: Z. Toth (Camp Springs, MD)
02 Execution and analysis of geophysical laboratory experiments
Convener: S.P. Malinowski (Warsaw), Co-Convener: W.-G. Früh (Edinburgh)
03 Nonlinear time series analysis
Convener: J. Kurths (Potsdam), Co-Convener: P. Yiou (Gif-sur-Yvette)

NP3 **Transport and mixing in geophysical flows**
Convener: B. Legras (Paris)
01 Transport and mixing in stably stratified fluid
Convener: C. Staquet (Grenoble)
02 Turbulence and mixing in geophysical flows, effects of stratification and rotation, convection, effect of coherent structures, Lagrangian chaos
Convener: J.M. Redondo (Barcelona)
03 Dispersion in two-dimensional flows, mixing, anomalous diffusion, experiments, models and numerical simulations
Convener: P. Tabeling (Paris)
04 Biological processes and mixing in the ocean *(co-sponsored by OA)*
Convener: K.J. Richards (Southampton)
05 Transport and mixing of chemical species in the atmosphere, including urban and regional problems in the troposphere and global-scale problems in the troposphere and stratosphere *(co-sponsored by OA & ST)*
Convener: P.H. Haynes (Cambridge)
06 Mixing in the interior of the Earth (recycling of subducted slabs) *(co-sponsored by SE)*
Convener: Y. Ricard (Lyon)

NP4 **Nonlinear waves, coherent structures and natural hazards**
01 Nonlinear waves, instabilities and wave-flow interactions
Convener: V.I. Shrira (Cork), Co-Convener: L.A. Ostrovsky (Boulder, CO)
02 Fluctuations, self-organization and natural hazards *(co-sponsored by NH)*
Convener: S.S. Moiseev (Moscow), Co-Convener: L.A. Mendes-Victor (Lisboa)
03 Shallow water experiments as models of geophysical and astrophysical flows
Convener: J. Sommeria (Lyon), Co-Convener: M.V. Nezlin (Moscow)

SE27 **Mechanics of tectonic and volcanic earthquakes** *(joint with NP)*
Convener: J. Sileny (Praha), Co-Convener: G.F. Panza (Trieste)

SE31 **Mechanics and thermalfluid-dynamics of volcanic processes: modelling, observations and laboratory experiments** *(joint with NP)*
Convener: G. de Natale (Napoli), Co-Conveners: P. Allard (Gif-sur-Yvette), M. Bonafede (Bologna)

NH1.01 **Sea surges and storms** *(joint with NP)*
Convener: A.R. Osborne (Torino), Co-Convener: S. Tinti (Bologna)

ST7 **Nonlinear processes in the ionosphere and magnetosphere** *(joint with NP)*
Convener: M.J. Rycroft (Illkirch), Co-Convener: D. Fontaine (Velizy)

NP5 **Vortex dynamics**
Convener: V. Zeitlin (Paris), Co-Convener: D.G. Dritschel (Cambridge)

IX. Natural Hazards (NH)

NH1 **Extreme events in the sea and near shore and coastal hazards**
- **01 Sea surges and storms** *(co-sponsored by NP)*
  Convener: A.R. Osborne (Torino), Co-Convener: S. Tinti (Bologna)
- **02 Submarine landsliding**
  Convener: P. Heinrich (Bruyeres le Chatel), Co-Convener: C. Eva (Genova)
- **03 Tsunamis**
  Convener: A. Piatanesi (Bruyeres le Chatel), Co-Convener: M.A. Baptista (Lisboa)

NH2 **Meteorological and hydrological hazards** *(co-sponsored by HS)*
- **01 Uncertainty assessment in meteo-hydrologic warning**
  Convener: E. Todini (Bologna), Co-Convener: F. Castelli (Perugia)
- **02 Prediction of hazardous events of meteorological origin**
  Convener: S. Tibaldi (Bologna), Co-Convener: S. Alonso (Palma de Mallorca)
- **03 Flood hazards and flood risk: regional analysis of extremes** *(co-sponserd by OA)*
  Convener: P. Bois (St. Martin d'Heres), Co-Convener: V. Oancea (Bucharest)
- **04 Modelling and flood mapping in rural and urban areas**
  Convener: G. Oberlin (Lyon), Co-Convener: G. Roth (Genova)
- **05 Shallow landslides and rainfall triggering**
  Convener: M. Sorriso-Valvo (Roges di Rende), Co-Convener: P. Versace (Montalto Uffugo Scalo)

HSB1.02 **Influence of environmental and anthropogenic change on flood processes** *(joint with NH)*
Convener: G. Blöschl (Wien), Co-Convener: P. Burlando (Zürich)

NH3 **Earthquake risk mitigation** *(co-sponsored by SE)*
- **01 Models and methods in seismic hazard assessment**
  Convener: T.M. Tsapanos (Thessaloniki), Co-Convener: C.V. Christova (Sofia)
- **02 Seismic hazard evaluation in high seismicity areas by observing precursory phenomena**
  Convener: M.E. Contadakis (Thessaloniki), Co-Convener: J. Zschau (Potsdam)
- **03 Macroseismics: present state of intensity-assessment procedures and future perspectives**
  Convener: A. Tertulliani (Rome), Co-Convener: I. Cecic (Ljubljana)
- **04 Active fault and earthquake risk mitigation**
  Convener: A.A. Barka (Paris), Co-Convener: I.S. Stewart (Isleworth)
- **05 Landslide hazards in seismically active regions**
  Convener: J. Wasowski (Bari), Co-Convener: V. Del Gaudio (Bari)
- **06 Efficiency of building codes in the mitigation of the vulnerability**
  Convener: V. Petrini (Milano), Co-Convener: L.G. Pujades Beneit (Barcelona)
- **07 Seismic microzonation in urban areas**
  Convener: A. Roca (Barcelona), Co-Convener: C.S. Oliveira (Lisboa)

NH4 **Volcanic hazards: field studies, instrumentation and observation networks** *(co-sponsored by SE)*
Convener: C. Kilburn (London), Co-Convener: G. Vougioukalakis (Athens)

NH5 **Geomorphological hazards: extent, evaluation and mapping techniques**
Convener: F. Guzzetti (Perugia), Co-Convener: R.J. Allison (Durham)

NH6 **Transfer of the scientific information to the users**
Convener: I. Becchi (Firenze), Co-Convener: F. Guzzetti (Perugia)

NP1.04 **Scaling, multifractals and natural/man-made hazards** *(joint with NH)*
Convener: G.S. Salvadori (Milano), Co-Convener: B.D. Malamud (Ithaca, NY)

NP4.02 **Fluctuations, self-organization and natural hazards** *(joint with NH)*
Convener: S.S. Moiseev (Moscow), Co-Convener: L.A. Mendes-Victor (Lisboa)

X. Additional Symposia

STA **Workshop on the EC TMR program: Scientific Training and Access to Aircraft for Atmospheric Research throughout Europe (STAAARTE): experiences-results-discussions**
Convener: M. Krautstrunk (Wessling), Co-Conveners: D.R. Kindred (Farnborough), G. Penazzi (St. Maur des Fosses)

Overall Schedule for Oral & Poster Sessions

MONDAY, 20 APRIL - MORNING SESSIONS

EGS **Geophysical and geological signatures of past and present climate change**
EGS2 R1 08.45 p. 65
Modelling techniques and joint inversion in Earth sciences
EGS3 R4 09.00 p. 66

SE **Open session on tectonophysics**
SE1 R2 08.30 p. 68
Variations in the Earth's rotation: implications for the dynamics and structure of the mantle and for global change processes
SE7 R2 11.00 p. 72
Fault interaction and earthquake mechanics
SE10 R3 08.30 p. 74
Active deformation along plate boundaries: measurements and models
SE17.2 Gallieni 5 09.00 p. 81
The Trans European Suture Zone (TESZ)I
SE19 Hermes 08.30 p. 83
Mechanics and thermalfluid-dynamics of volcanic processes: modelling, observations and laboratory experiments
SE31 Athena 08.30 p. 92
Archaeomagnetism and secular variations
SE35.2 R11 08.30 p. 103
Electro-magnetic and electro-kinetic properties of rocks: integration of laboratory, borehole and field measurements
SE41 R8 11.00 p. 112
Collisional and transform plate boundaries and subduction zones
SE47.4 R9 08.45 p. 117

G **Geophysical applications of radar interferometry**
G3 R9 11.00 p. 123
Joint EGS/AGU Symposium on geodetic observation and geophysical interpretation of mass movements in the Earth system - Introduction
G7 R5 08.30 p. 127
Solid Earth and core
G7.1 R5 10.45 p. 127
Instrumental challenges in geodesy
G15 R7 09.00 p. 134
Geodetic and geodynamic achievements of the CEI (Central European Initiative)
G16 R10 08.30 p. 136

HS **Identification of model parameters in groundwater hydrology**
HSA1.2 Gallieni 3 09.00 p. 140
Morphological processes at the hillslope and river scale
HSA2.2 Mykonos 08.45 p. 143
Sediment and contaminant transfers at the land/ocean interface
HSA2.3 Mykonos 11.00 p. 144
Open session on hydrology and surface hydrological processes
HSA5 Gallieni 2 08.30 p. 145

OA **Open session on coastal/shelf-sea dynamics**
OA5 Uranie 08.30 p. 167

OA **Dynamics of the polar ocean and its coupling to sea ice I**
OA6 Calliope 08.30 p. 169
Extreme weather events in the Mediterranean
OA12 Thalie 11.00 p. 178
Intercomparison and validation of the ocean-atmosphere flux fields I
OA14.1 Erato 09.00 p. 181
West African monsoon studies
OA17.1 Euterpe 08.30 p. 188
Biogeochemical interactions in the coastal marine environment
OA21 Clio 08.30 p. 198
Developments in weather forecasting I
OA25 Thalie 08.30 p. 202

ST **Review session on solar-terrestrial sciences**
ST1 M7 11.00 p. 207
Open session on solar and heliospheric physics I
ST5 M5 09.00 p. 213
Effects of geomagnetic storms and high-energy particle events on the ionosphere, thermosphere, and middle atmosphere
ST9 M6 09.00 p. 218
Aviation impact on the atmosphere
ST17.1 M8 08.30 p. 232

PS **Evolution and state of surfaces, crusts and lithospheres of planetary bodies I**
PS2 M1 11.00 p. 236
Meteorites and cosmochemistry
PS8 M1 09.00 p. 245
Interrelations between asteroids, near-Earth asteroids and meteorites
PS10 M4 09.00 p. 246
Observation of solar-system objects with ISO I
PS11 M2 09.00 p. 246

NP **Scaling, multifractals and nonlinearity in Solid Earth**
NP1.1 M9 09.00 p. 252
Dispersion in two-dimensional flows, mix- ing, anomalous diffusion, experiments, models and numerical simulations
NP3.3 M3 09.00 p. 259
Shallow water experiments as models of geophysical and astrophysical flows
NP4.3 Iris 08.30 p. 265

NH **Submarine landsliding**
NH1.2 Studio 11.00 p. 267
Models and methods in seismic hazard assessment
NH3.1 R6 09.00 p. 271

Opening & Award Ceremony and Society Lecture
Lecture Theatre Apollon

17.00 Opening Ceremony
17.15 Award Ceremony
18.00 Inauguration of the new EGS and Section Presidents
18.15 Society Lecture
19.30 Reception

MONDAY, 20 APRIL - AFTERNOON SESSIONS

EGS **Modelling techniques and joint inversion in Earth sciences**
EGS3 R4 14.00 p. 66

SE **Variations in the Earth's rotation: implications for the dynamics and structure of the mantle and for global change processes**
SE7 R2 14.00 p. 72
Fault interaction and earthquake mechanics
SE10 R3 14.00 p. 75
Active deformation along plate boundaries: measurements and models
SE17.2 Gallieni 5 14.00 p. 81
The Trans European Suture Zone (TESZ)I
SE19 Hermes 14.00 p. 83
Mechanics and thermalfluid-dynamics of volcanic processes: modelling, observations and laboratory experiments
SE31 Athena 14.00 p. 93
Archaeological prospection
SE35.1 R11 14.00 p. 102
Electro-magnetic and electro-kinetic properties of rocks: integration of laboratory, borehole and field measurements
SE41 R8 14.00 p. 112
Spontaneous globally synchronized variations of physical parameters
SE52 R1 14.00 p. 120

G **Solid Earth and core**
G7.1 R5 14.00 p. 127
Ocean and hydrosphere
G7.2 R5 14.30 p. 127
Instrumental challenges in geodesy
G15 R7 14.00 p. 135
Geodetic and geodynamic achievements of the CEI (Central European Initiative)
G16 R10 14.00 p. 136

HS **Identification of model parameters in groundwater hydrology**
HSA1.2 Gallieni 3 14.00 p. 140
Measurement of bedload and suspended sediment in turbulent flow
HSA2.1 Mykonos 14.00 p. 143
Open session on hydrology and surface hydrological processes
HSA5 Gallieni 2 14.00 p. 146

OA **Open session on coastal/shelf-sea dynamics**
OA5 Uranie 14.00 p. 168
Dynamics of the polar ocean and its coupling to sea ice I
OA6 Calliope 14.00 p. 169
Extreme weather events in the Mediterranean
OA12 Thalie 14.00 p. 179
Intercomparison and validation of the ocean-atmosphere flux fields I
OA14.1 Erato 14.00 p. 181
Interaction of biogenic and anthropogenic compouds in the Mediterranean and its influence on atmospheric chemistry I
OA16 Clio 14.00 p. 186
Clouds in the climate system: observations and modelling
OA17.4 Euterpe 14.00 p. 192

ST **Open session on the middle atmosphere I**
ST2 M7 14.00 p. 207

ST **Open session on solar and heliospheric physics I**
ST5 M5 14.00 p. 213
Effects of geomagnetic storms and high-energy particle events on the ionosphere, thermosphere, and middle atmosphere
ST9 M6 14.00 p. 218
Air traffic meteorology and weather impact on aviation I
ST17.2 M8 14.00 p. 233

PS **Evolution and state of surfaces, crusts and lithospheres of planetary bodies I**
PS2 M1 14.00 p. 237
Solar system radiophysics & related topics I
PS6 M4 14.00 p. 242
Observation of solar-system objects with ISO I
PS11 M2 14.00 p. 247

NP **Scaling, multifractals and nonlinearity in hydrology**
NP1.2 M9 14.00 p. 252
Execution and analysis of geophysical laboratory experiments
NP2.2 Iris 14.00 p. 256
Transport and mixing of chemical species in the atmosphere, including urban and regional problems in the troposphere and global-scale problems in the troposphere and stratosphere I
NP3.5 M3 14.00 p. 260
Mixing in the interior of the Earth I
NP3.6 M3 15.45 p. 262

NH **Uncertainty assessment in meteo-hydrologic warning**
NH2.1 Studio 14.00 p. 268
Active fault and earthquake risk mitigation
NH3.4 R6 14.00 p. 274

Video & PC Points

Video (multinorm VHS)

AGORA2- HS Area (lifts close to Apollon)
RHODES - SE Area (escalator to Méditerranée)
LES MUSES - OA Area (next to exit/entrance)

Personal Computer

RHODES - SE Area (escalator to Méditerranée)

Tuesday-Thursday, 21-23 April, 08.00-19.00/19.30

Open Section/IWG Business Meetings

Wednesday, 22 April, 12.00-14.00

SE:	R10	ST:	M8
G:	R5	PS:	M4
HS:	Gallieni 3	NP:	M3
OA:	Clio	NH:	R1

Sandwiches & Refreshments are complimentary

TUESDAY, 21 APRIL - MORNING SESSIONS

EGS **Tectonics, structure and dynamics of the Alpine-Mediterranean System**
EGS1.1 Athena 09.00 p. 63

SE **Post-glacial rebound and its influence on sea level, crustal deformation and gravity: new observations, modelling results and initiatives**
SE6 R3 11.00 p. 71
Lithospheric dynamic processes as seen from geomorphology
SE11 R2 11.00 p. 75
Crustal structure revealed by scientific drilling
SE15 R3 08.45 p. 78
Seismological studies in convergent plate margins
SE17.3 R2 08.45 p. 82
The Trans European Suture Zone (TESZ)II
SE19 Hermes 08.30 p. 84
Images of the continental lithosphere by active seismic methods
SE22 R1 11.00 p. 86
Seismic rupture processes: confrontation of observations and theory
SE24 R9 08.30 p. 88
The Umbria-Marche earthquake sequence of 1997: first results
SE24.1 R9 11.00 p. 89
Open session on volcanology, geochemistry and petrology
SE28 R1 08.45 p. 92
Effect of chemical alteration on magnetization
SE34.3 R4 09.00 p. 98
Potential fields in geodesy, geophysics and geology I
SE36 Hermes 11.00 p. 104
Physical properties of mudrocks
SE39.6 R11 11.00 p. 111
Rifted margins
SE47.1 R10 08.45 p. 115

G **Cryosphere**
G7.3 R5 08.30 p. 128
Atmosphere
G7.4 R5 09.45 p. 128
Interactions between the components of the Earth system
G7.5 R5 11.30 p. 128
Recent advances in precise geoid determination methodology
G11 R8 09.00 p. 131
Contribution of permanent geodetic network to Earth Science in Europe
G14 R7 09.00 p. 133

HS **Reactive mass transport: experimental studies of chemical, colloidal and biological processes**
HSA1.3 Gallieni 3 11.00 p. 141
Open session on hydrology and weather
HSA4 Gallieni 2 09.00 p. 145
Recent advances in tracers in vadose zone hydrology
HSA6.1 Mykonos 08.45 p. 147
Catchment management in the Mediterranean for efficient water use
HSC1.5 Gallieni 3 08.30 p. 160

OA **The thermohaline circulation I**
OA1 Calliope 11.00 p. 161

OA **Dynamics of the polar ocean and its coupling to sea ice II**
OA6 Calliope 08.30 p. 170
The Mediterranean Sea: general circulation variability and related processes
OA8 Uranie 08.30 p. 172
Mesoscale transport of air pollution, including land/sea areas
OA11 Erato 11.00 p. 177
Intercomparison and validation of the ocean-atmosphere flux fields II
OA14.1 Erato 08.45 p. 182
Interaction of biogenic and anthropogenic compouds in the Mediterranean and its influence on atmospheric chemistry II
OA16 Clio 08.30 p. 187
Prediction and detection of anthropogenic climate change
OA17.5 Euterpe 08.30 p. 193
Free-radicals in the troposphere
OA19 Clio 11.00 p. 196
Developments in weather forecasting II
OA25 Thalie 08.30 p. 202

ST **Open session on the middle atmosphere II**
ST2 M7 08.30 p. 207
Open session on solar and heliospheric physics II
ST5 M5 09.00 p. 213
Nonlinear dynamics in the heliosphere
ST6 Gallieni 5 08.45 p. 215
The high-latitude ionosphere and magnetosphere: coupling and solar wind forcing
ST8 M6 08.45 p. 216
Air traffic meteorology and weather impact on aviation II
ST17.2 M8 08.30 p. 234

PS **Evolution and state of surfaces, crusts and lithospheres of planetary bodies II**
PS2 M1 08.30 p. 237
Atmospheres of terrestrial planets, outer planets and moons I
PS3 M1 11.00 p. 238
Solar system radiophysics and related topics II
PS6 M4 08.45 p. 242
Observation of solar-system objects with ISO II
PS11 M2 09.00 p. 247
Mars Pathfinder Mission: Update I
PS13 Iris 08.30 p. 249

NP **Scaling, multifractals and nonlinearity in oceans & atmosphere**
NP1.3 M9 09.00 p. 253
Transport and mixing in stably stratified fluid
NP3.1 M3 10.00 p. 257
Mixing in the interior of the Earth (recycling of subducted slabs) II
NP3.6 M3 08.30 p. 263

NH **Sea surges and storms**
NH1.1 R6 08.30 p. 267
Tsunamis
NH1.3 R6 11.00 p. 267
Prediction of hazardous events of meteorological origin
NH2.2 Studio 09.00 p. 268

EGS **Tectonics, structure and dynamics of the Alpine-Mediterranean System**
EGS1.1 Athena 14.00 p. 63
Geophysical and geological signatures of past and present climate change - Posters
EGS2 RHODES-SE 17.00 p. 66
Modelling techniques and joint inversion in Earth sciences - Posters
EGS3 RHODES-SE 17.00 p. 67

SE **Open session on tectonophysics - Posters**
SE1 RHODES-SE 17.00 p. 68
Post-glacial rebound and its influence on sea level, crustal deformation and gravity: new observations, modelling results and initiatives
SE6 R3 14.00 p. 71
Post-glacial rebound and its influence on sea level, crustal deformation and gravity: new observations, modelling results and initiatives - Posters
SE6 RHODES-SE 17.00 p. 72
Variations in the Earth's rotation: implications for the dynamics and structure of the mantle and for global change processes - Posters
SE7 RHODES-SE 17.00 p. 72
Fault interaction and earthquake mechanics - Posters
SE10 RHODES-SE 17.00 p. 75
Lithospheric dynamic processes as seen from geomorphology - Posters
SE11 RHODES-SE 17.00 p. 75
Crustal structure revealed by scientific drilling - Posters
SE15 RHODES-SE 17.00 p. 79
Active deformation along plate boundaries: measurements and models - Posters
SE17.2 RHODES-SE 17.00 p. 82
Seismological studies in convergent plate margins - Posters
SE17.3 RHODES-SE 17.00 p. 82
The Trans European Suture Zone (TESZ) - Posters
SE19 RHODES-SE 17.00 p. 84
Images of the continental lithosphere by active seismic methods
SE22 R1 14.00 p. 86
Images of the continental lithosphere by active seismic methods - Posters
SE22 RHODES-SE 17.00 p. 87
Seismic rupture processes: confrontation of observations and theory - Posters
SE24 RHODES-SE 17.00 p. 89
The Umbria-Marche earthquake sequence of 1997: first results - Posters
SE24.1 RHODES-SE 17.00 p. 89
3-D seismic modelling and high performance computing
SE26 Thalie 14.00 p. 91
Mechanics and thermalfluid-dynamics of volcanic processes: modelling, observations and laboratory experiments - Posters
SE31 RHODES-SE 17.00 p. 93
New challenges in rockmagnetism, palaeomagnetism and environmental magnetism
SE34.1 R4 14.05 p. 96
New challenges in rockmagnetism, palaeomagnetism and environmental magnetism - Posters
SE34.1 RHODES-SE 17.00 p. 96

SE **Effect of chemical alteration on magnetization - Posters**
SE34.3 RHODES-SE 17.00 p. 99
Archaeological prospection - Posters
SE35.1 RHODES-SE 17.00 p. 103
Archaeomagnetism and secular variations - Posters
SE35.2 RHODES-SE 17.00 p. 104
Potential fields in geodesy, geophys. & geology I
SE36 Hermes 14.00 p. 104
Potential fields in geodesy, geophysics and geology - Posters
SE36 RHODES-SE 17.00 p. 105
Physical properties of mudrocks
SE39.6 R11 14.00 p. 111
Electro-magnetic and electro-kinetic properties of rocks: integration of laboratory, borehole and field measurements - Posters
SE41 RHODES-SE 17.00 p. 112
Physical properties of fault zones
SE42 R2 14.00 p. 113
Rifted margins
SE47.1 R10 14.00 p. 116
Rifted margins - Posters
SE47.1 RHODES-SE 17.00 p. 116
Marine magnetics 35 years after Vine- Matthews-Morley discovery (in memory of D. Matthews)
SE49 R9 14.00 p. 119
Spontaneous globally synchronized variations of physical parameters - Posters
SE52 RHODES-SE 17.00 p. 121

G **Environmental effects on gravity and intercomparisons with other techniques - Posters**
G1 AGORA2-G 17.00 p. 122
Geophysical applications of radar interferometry - Posters
G3 AGORA2-G 17.00 p. 123
Interactions between the components of the Earth system
G7.5 R5 14.00 p. 128
Recent advances in precise geoid determination methodology
G11 R8 14.00 p. 131
Recent advances in precise geoid determination methodology - Posters
G11 AGORA2-G 17.00 p. 131
Contribution of permanent geodetic network to Earth Science in Europe
G14 R7 14.00 p. 134
Contribution of permanent geodetic network to Earth Science in Europe - Posters
G14 AGORA2-G 17.30 p. 134
Instrumental challenges in geodesy - Posters
G15 AGORA2-G 17.00 p. 135
Geodetic and geodynamic achievements of the CEI (Central European Initiative) - Posters
G16 AGORA2-G 17.00 p. 137

HS **Reactive mass transport: experimental studies of chemical, colloidal and biological processes**
HSA1.3 Gallieni 3 14.00 p. 141
Open session on hydrology and weather
HSA4 Gallieni 2 14.00 p. 145
Open session on hydrology and surface hydrological processes - Posters
HSA5 AGORA2-HS 17.00 p. 146
Hydrology and soil processes - Posters
HSA6 AGORA2-HS 17.00 p. 147

HS **Scale problems of soil hydrological measuring techniques**
HSA6.2 Mykonos 14.00 p. 148

OA **The thermohaline circulation I**
OA1 Calliope 14.00 p. 161
Open session on coastal/shelf-sea dynamics - Post.
OA5 LES MUSES 17.00 p. 158
Dynamics of the polar ocean and its coupling to sea ice - Posters
OA6 LES MUSES 17.00 p. 170
The Mediterranean Sea: general circulation variability and related processes
OA8 Uranie 14.00 p. 172
The Mediterranean Sea: general circulation variability and related processes - Posters
OA8 LES MUSES 17.00 p. 173
Mesoscale transport of air pollution, including land/sea areas
OA11 Erato 14.00 p. 177
Mesoscale transport of air pollution, including land/sea areas - Posters
OA11 LES MUSES 17.30 p. 178
Extreme weather events in the Mediterranean - Posters
OA12 LES MUSES 17.00 p. 179
Interaction of biogenic and anthropogenic compouds in the Mediterranean and its influence on atmospheric chemistry - Posters
OA16 LES MUSES 17.00 p. 187
Climate variability: models and observations
OA17 Euterpe 14.00 p. 188
Free-radicals in the troposphere
OA19 Clio 14.00 p. 196
Free-radicals in the troposphere - Posters
OA19 LES MUSES 17.00 p. 197
Biogeochemical interactions in the coastal marine environment - Posters
OA21 LES MUSES 17.00 p. 199
Developments in weather forecasting - Posters
OA25 LES MUSES 17.00 p. 203

ST **Review session on solar-terrestrial sciences - Posters**
ST1 AGORA3-ST 17.00 p. 207
Open session on the middle atmosphere II
ST2 M7 14.00 p. 208
Open session on the middle atmosphere II - Post.
ST2 AGORA3-ST 17.00 p. 208
Open session on solar and heliospheric physics - Posters
ST5 AGORA3-ST 17.00 p. 214
Nonlinear dynamics in the heliosphere
ST6 Gallieni 5 14.00 p. 215
Nonlinear dynamics in the heliosphere - Posters
ST6 AGORA3-ST 17.00 p. 215
The high-latitude ionosphere and magnetosphere: coupling and solar wind forcing
ST8 M6 14.00 p. 217
The high-latitude ionosphere and magnetosphere: coupling and solar wind forcing - Posters
ST8 AGORA3-ST 17.30 p. 217
Effects of geomagnetic storms and high-energy particle events on the ionosphere, thermosphere, and middle atmosphere - Posters
ST9 AGORA3-ST 17.00 p. 218
New results on the dynamics of the Earth's magnetosphere from the Interball multi-spacecraft missions I
ST11 M2 14.00 p. 220

ST **Plasma diagnosis of the solar atmosphere by photon spectroscopy and remote particle measurements I**
ST13.1 M5 14.00 p. 223
Aviation impact on the atmosphere - Posters
ST17.1 AGORA3-ST 17.00 p. 233
Air traffic meteorology and weather impact on aviation II
ST17.2 M8 14.00 p. 234
Air traffic meteorology and weather impact on aviation II - Posters
ST17.2 AGORA3-ST 17.30 p. 235

PS **Evolution and state of surfaces, crusts and lithospheres of planetary bodies - Posters**
PS2 AGORA3-PS 17.00 p. 237
Atmospheres of terrestrial planets, outer planets and moons I
PS3 M1 14.00 p. 238
Observation of solar-system objects with ISO - Posters
PS11 AGORA3-PS 17.00 p. 247
Planet formation and extra-solar planets I
PS12 M4 14.00 p. 248
Mars Pathfinder Mission: Update I
PS13 Iris 14.00 p. 249
Mars Pathfinder Mission: Update I - Posters
PS13 AGORA3-PS 17.00 p. 250

NP **Scaling, multifractals and nonlinearity in Solid Earth - Posters**
NP1.1 AGORA3-NP 17.00 p. 252
Scaling, multifractals and nonlinearity in hydrology - Posters
NP1.2 AGORA2-NP 17.00 p. 253
Scaling, multifractals and nonlinearity in oceans & atmosphere
NP1.3 M9 14.00 p. 254
Scaling, multifractals and nonlinearity in oceans & atmosphere - Posters
NP1.3 AGORA3-NP 17.30 p. 254
Scaling, multifractals and natural/man-made hazards - Posters
NP1.4 AGORA3-NP 17.00 p. 254
Transport and mixing in stably stratified fluid
NP3.1 M3 14.00 p. 257
Transport and mixing in stably stratified fluid - Posters
NP3.1 AGORA3-NP 17.30 p. 258
Dispersion in two-dimensional flows, mixing, anomalous diffusion, experiments, models and numerical simulations - Posters
NP3.3 AGORA3-NP 17.00 p. 259
Shallow water experiments as models of geophysical and astrophysical flows - Posters
NP4.3 AGORA3-NP 17.00 p. 265

NH **Models and methods in seismic hazard assessment - Posters**
NH3.1 RHODES-NH 17.00 p. 272
Active fault and earthquake risk mitigation - Posters
NH3.4 RHODES-NH 17.00 p. 275
Efficiency of building codes in the mitigation of the vulnerability
NH3.6 R6 14.00 p. 276
Transfer of the scientific information to the users
NH6 Studio 14.00 p. 279

WEDNESDAY, 22 APRIL - MORNING SESSIONS

EGS **Evolution of the African-Eurasian plate boundary**
EGS1.2 Athena 09.00 p. 63

SE **Geodynamics of the lithosphere: images and models of active tectonics**
SE5 R3 08.45 p. 70
Modern rifts: plumes, kinematic conditions and lithospheric inhomogeneities
SE14 R9 09.00 p. 77
Open session on seismology
SE21 R2 09.00 p. 85
Sediment magnetic records of climatic cycles and events
SE34.4 R4 09.00 p. 99
Potential fields in geodesy, geophysics and geology II
SE36 Gallieni 5 09.00 p. 105
Physical properties of partially molten rocks
SE39.5 R11 08.40 p. 111
Processes of crustal accretion at mid-oceanic-ridges
SE47.3 R10 09.00 p. 116
Recent marine geological and geophysical investigation in the Mediterranean and Black Sea
SE50 R1 09.00 p. 119

G **Recent crustal movements of coastal regions: new geodetic, geologic and geophysical results**
G2 R8 09.00 p. 122
Integrated studies of sea-level fluctuations and crustal movements in the Mediterranean and adjacent regions
G8 R5 09.00 p. 129
Atmospheric sounding with GPS
G9 R7 08.30 p. 129

HS **Characterization and modelling of the 2-D and 3-D structure of porous and fractured formations**
HSA1.1 Gallieni 3 08.40 p. 139
Open session on hydrology and climate
HSA3 Gallieni 2 09.00 p. 144
Water resources of international river basins
HSB1.1 Mykonos 09.00 p. 153
The French National Programme in Hydrology
HSC1.1 Hermes 08.45 p. 157

OA **The thermohaline circulation II**
OA1 Calliope 09.00 p. 161
Surface fluxes in non-homogeneous terrain
OA10.1 Thalie 09.00 p. 174
Major systematic errors in global coupled models
OA14.2 Erato 09.00 p. 183

OA **Climate variability: time scale interactions I**
OA17.3 Euterpe 08.30 p. 190
Radiogenic isotopes as tracers of source-areas for aerosols, suspended matter and sediments
OA20 Clio 08.30 p. 198
Operational oceanography: existing systems, developments and future potential
OA23 Uranie 09.00 p. 200

ST **Nonlinear processes in the ionosphere and magnetosphere**
ST7 M8 09.00 p. 215
New results on the dynamics of the Earth's magnetosphere from the Interball multi-spacecraft missions II
ST11 M7 09.00 p. 220
Plasma diagnosis of the solar atmosphere by photon spectroscopy and remote particle measurements II
ST13.1 M5 09.00 p. 224
Stratosphere-troposphere-exchange I
ST16 M6 08.45 p. 230

PS **Atmospheres of terrestrial planets, outer planets and moons II**
PS3 M1 08.30 p. 239
Laboratory studies and observations on dust, ices and organics in the solar system I
PS7 M9 08.45 p. 243
Planet formation and extra-solar planets II
PS12 M4 09.00 p. 248
Mars Pathfinder Mission: Update II
PS13 Iris 09.00 p. 251

NP **Nonlinear time series analysis**
NP2.3 M2 08.30 p. 256
Turbulence and mixing in geophysical flows, effects of stratification and rotation, convection, effect of coherent structures, Lagrangian chaos
NP3.2 M3 09.00 p. 258

NH **Flood hazards and flood risk: regional analysis of extremes**
NH2.3 Studio 08.30 p. 269
Modelling and flood mapping in rural and urban areas
NH2.4 Studio 10.30 p. 269
Seismic hazard evaluation in high seismicity areas by observing precursory phenomena
NH3.2 R6 08.30 p. 272

WEDNESDAY, 22 APRIL - AFTERNOON SESSIONS

EGS **Evolution of the African-Eurasian plate boundary**
EGS1.2 Athena 14.00 p. 63
Evolution of the African-Eurasian plate boundary - Posters
EGS1.2 RHODES-SE 17.00 p. 64

SE **Geodynamics of the lithosphere: images and models of active tectonics**
SE5 R3 14.00 p. 70
Geodynamics of the lithosphere: images and models of active tectonics - Posters
SE5 RHODES-SE 17.00 p. 70

SE **Modern rifts: plumes, kinematic conditions and lithospheric inhomogeneities**
SE14 R9 14.00 p. 77
Modern rifts: plumes, kinematic conditions and lithospheric inhomogeneities - Posters
SE14 RHODES-SE 17.00 p. 78
Crustal melting in nature and experiment
SE32 R2 14.00 p. 94
Sediment magnetic records of climatic cycles and events
SE34.4 R4 14.00 p. 99

SE **Sediment magnetic records of climatic cycles and events - Posters**
SE34.4 RHODES-SE 17.00 p. 100
Potential fields in geodesy, geophysics and geology II
SE36 Gallieni 5 14.00 p. 106
Open session on physical properties of geomaterials - Posters
SE39.1 RHODES-SE 17.00 p. 107
Pore pressure as a geomechanical and geophysical parameter
SE39.4 R11 14.00 p. 110
Physical properties of mudrocks - Posters
SE39.6 RHODES-SE 17.00 p. 112
Open session on marine geophysics - Posters
SE46 RHODES-SE 17.00 p. 114
Processes of crustal accretion at mid-oceanic-ridges
SE47.3 R10 14.00 p. 117
Recent marine geological and geophysical investigation in the Mediterranean and Black Sea
SE50 R1 14.00 p. 119
Recent marine geological and geophysical investigation in the Mediterranean and Black Sea - Posters
SE50 RHODES-SE 17.30 p. 119

G **Environmental effects on gravity and intercomparisons with other techniques**
G1 R7 14.00 p. 122
Recent crustal movements of coastal regions: new geodetic, geologic and geophysical results
G2 R8 14.00 p. 123
Integrated studies of sea-level fluctuations and crustal movements in the Mediterranean and adjacent regions
G8 R5 14.00 p. 129

HS **Hydrology and the Earth's crust - Posters**
HSA1 AGORA2-HS 17.00 p. 139
Characterization and modelling of the 2-D and 3-D structure of porous and fractured formations
HSA1.1 Gallieni 3 14.00 p. 139
Hydrology and landforms and fluvial systems - Posters
HSA2 AGORA2-HS 17.00 p. 143
Open session on hydrology and climate
HSA3 Gallieni 2 14.00 p. 144
Open session on hydrology and climate - Posters
HSA3 AGORA2-HS 17.00 p. 144
Open session on hydrology and weather - Posters
HSA4 AGORA2-HS 17.00 p. 145
Open session on hydrology and living communities
HSA7 Gallieni 2 15.30 p. 148
Influence of landuse and moisture feedback on continental rainfall
HSB1.4 Mykonos 14.00 p. 155
The French National Programme in Hydrology
HSC1.1 Hermes 14.00 p. 157
The French National Programme in Hydrology - Posters
HSC1.1 AGORA2-HS 17.30 p. 158

OA **The thermohaline circulation**
OA1 Calliope 14.00 p. 161
The thermohaline circulation - Posters
OA1 LES MUSES 17.00 p. 162
Surface fluxes in non-homogeneous terrain
OA10.1 Thalie 14.00 p. 175

OA **Cyclogenesis and fronts: FASTEX I**
OA13 Clio 14.00 p. 179
Major systematic errors in global coupled models
OA14.2 Erato 14.00 p. 183
Sensitivity of radiative pertubations in global coupled models
OA14.3 Erato 15.15 p. 183
Climate variability: models and observations - Posters
OA17 LES MUSES 17.00 p. 188
Climate variability: time scale interactions I
OA17.3 Euterpe 14.00 p. 190
Operational oceanography: existing systems, developments and future potential
OA23 Uranie 14.00 p. 200
Operational oceanography: existing systems, developments and future potential - Posters
OA23 LES MUSES 17.00 p. 201

ST **Nonlinear processes in the ionosphere and magnetosphere**
ST7 M8 14.00 p. 216
Nonlinear processes in the ionosphere and magnetosphere - Posters
ST7 AGORA3-ST 17.00 p. 216
New results on the dynamics of the Earth's magnetosphere from the Interball multi-spacecraft missions - Posters
ST11 AGORA3-ST 17.00 p. 221
Multi-wavelength observations of solar atmospheric structure, evolution and eruptions I
ST13.2 M5 14.00 p. 224
Multi-wavelength observations of solar atmospheric structure, evolution and eruptions I - Posters
ST13.2 AGORA3-ST 17.00 p. 224
Modelling and validation with satellite data I
ST15.1 M7 14.00 p. 225
Stratosphere-troposphere-exchange I
ST16 M6 14.00 p. 231

PS **Planetary interiors I**
PS1 M4 14.00 p. 236
Planetary interiors - Posters
PS1 AGORA3-PS 17.00 p. 236
Atmospheres of terrestrial planets, outer planets and moons - Posters
PS3 AGORA3-PS 17.00 p. 239
Planetary magnetospheres and ionospheres I
PS4 M1 14.00 p. 240
Laboratory studies and observations on dust, ices and organics in the solar system I
PS7 M9 14.00 p. 243
Laboratory studies and observations on dust, ices and organics in the solar system - Posters
PS7 AGORA3-PS 17.00 p. 244
Planet formation and extra-solar planets - Posters
PS12 AGORA3-PS 17.00 p. 249
Mars Pathfinder Mission: Update II
PS13 Iris 14.00 p. 251

NP **Quantifying predictability - Posters**
NP2.1 AGORA3-NP 17.00 p. 255
Execution and analysis of geophysical laboratory experiments - Posters
NP2.2 AGORA3-NP 17.00 p. 256
Nonlinear time series analysis
NP2.3 M2 14.00 p. 257
Nonlinear time series analysis - Posters
NP2.3 AGORA3-NP 17.30 p. 257

WEDNESDAY, 22 APRIL - AFTERNOON SESSIONS CONT.

NP **Turbulence and mixing in geophysical flows, effects of stratification and rotation, convection, effect of coherent structures, Lagrangian chaos**
NP3.2 M3 14.00 p. 258
Turbulence and mixing in geophysical flows, effects of stratification and rotation, convection, effect of coherent structures, Lagrangian chaos - Posters
NP3.2 AGORA3-NP 17.00 p. 259

NH **Sea surges and storms - Posters**
NH1.1 RHODES-NH 17.00 p. 267
Tsunamis - Posters
NH1.3 RHODES-NH 17.00 p. 268
Prediction of hazardous events of meteorological origin - Posters
NH2.2 RHODES-NH 17.00 p. 269
Flood hazards and flood risk: regional analysis of extremes - Posters
NH2.3 RHODES-NH 17.00 p. 269
Modelling and flood mapping in rural and urban areas
NH2.4 Studio 14.00 p. 270
Modelling and flood mapping in rural and urban areas - Posters
NH2.4 RHODES-NH 17.30 p. 270
Shallow landslides and rainfall triggering - Posters
NH2.5 RHODES-NH 17.30 p. 270
Seismic hazard evaluation in high seismicity areas by observing precursory phenomena
NH3.2 R6 14.00 p. 272

THURSDAY, 23 APRIL - MORNING SESSIONS

EGS **Seismicity and seismotectonics of the Mediterranean region**
EGS1.3 Athena 08.30 p. 64

SE **Seismology and physics of the Earth's core and mantle**
SE3 R2 08.30 p. 69
From the Arctic to the Mediterranean: salt, shale and igneous diapirs in and around Europe
SE12 R3 11.00 p. 76
3-D crustal imaging of France
SE16 R10 08.30 p. 79
Aspects of the Carpathian-East Alpine-Pannonian geodynamics: the PANCARDI approach
SE20 R1 09.00 p. 84
Seismic anisotropy, scattering and attenuation
SE23 Hermes 08.30 p. 87
High-resolution seismics: theory, methods and applications
SE25 R3 08.45 p. 90
Palaeomagnetism and tectonic evolution of the Mediterranean area
SE34.6 R4 08.30 p. 101
Imaging, analysing and modelling pore structure in geomaterials
SE39.2 R11 09.00 p. 108
Can electromagnetic images constrain geophysical interpretation of tectonically active environments?
SE44 R9 08.30 p. 114

G **Ocean modelling from altimetry and remote sensing I**
G5 R7 08.45 p. 124
High resolution monitoring of land and ice surface with altimetry and SAR interferometry
G6 R5 09.00 p. 126

HS **Coastal aquifer dynamics and groundwater recharge**
HSA1.4 Gallieni 3 09.00 p. 142
New developments in in-situ treatment of subsurface contaminations
HSA8.2 Gallieni 2 11.00 p. 150
Water scarcity
HSB2.1 Gallieni 5 11.00 p. 155
Groundwater systems and management
HSB2.3 Gallieni 2 09.00 p. 156
Dryland degradation in the Mediterranean: threat, processes and mitigation
HSC1.2 Mykonos 09.00 p. 158

OA **Processes in regions of oceanic time series stations**
OA2 Calliope 08.30 p. 163
Circulation variability at mesoscale I
OA4 Uranie 08.30 p .165
Long term measurements of surface fluxes
OA10.2 Thalie 09.00 p. 176
Cyclogenesis and fronts: FASTEX II
OA13 Clio 08.30 p. 180
Modelling of cloud systems
OA15.2 Thalie 11.00 p. 185
Climate variability: time scale interactions II
OA17.3 Euterpe 08.45 p. 191
Marine data management: assimilation, hindcasting and nowcasting
OA24 Erato 08.30 p. 201
Marine tropospheric chemistry
OA27 Gallieni 5 08.30 p. 204

ST **Theory and simulations of solar system plasmas I**
ST12 M8 09.00 p. 222
Multi-wavelength observations of solar atmospheric structure, evolution and eruptions II
ST13.2 M5 09.00 p. 225
Modelling and validation with satellite data II
ST15.1 M7 08.30 p. 226
Polar ozone
ST15.2 M7 11.30 p. 227
Stratosphere-troposphere-exchange II
ST16 M6 08.30 p. 231

PS **Planetary Interiors II**
PS1 M4 09.00 p. 236
Planetary magnetospheres and ionospheres II
PS4 M1 09.00 p. 240
Laboratory studies and observations on dust, ices and organics in the solar system II
PS7 M9 08.45 p. 244

NP **Quantifying predictability**
NP2.1 M2 08.30 p. 255
Biological processes and mixing in the ocean
NP3.4 M3 08.30 p. 260

THURSDAY, 23 APRIL - MORNING SESSIONS CONT.

NP **Nonlinear waves, instabilities and waveflow interactions**
NP4.1 Iris 08.30 p.263

NH **Macroseismics: present state of intensityassessment procedures and future perspectives**
NH3.3 R6 09.00 p. 274

NH **Landslide hazards in seismically active regions**
NH3.5 R6 11.00 p. 275

Geomorphological hazards: extent, evaluation and mapping techniques
NH5 Studio 09.00 p. 278

STA **STAAARTE Workshop**
STAARTE R8 09.00 p. 280

THURSDAY, 23 APRIL - AFTERNOON SESSIONS

EGS **Seismicity and seismotectonics of the Mediterranean region - Posters**
EGS1.3 RHODES-SE 17.00 p. 65

Space techniques for acquisition of aeronomic-ionospheric data in the lower thermosphere
EGS4 R2 14.00 p. 67

SE **Dynamics, mineral physics and tomographic imaging of the Earth's mantle - Posters**
SE2 RHODES-SE 17.00 p. 68

Sedimentary basin modelling and integration of geophysical and sedimentary geology data - Posters
SE8 RHODES-SE 17.00 p. 72

From the Arctic to the Mediterranean: salt, shale and igneous diapirs in and around Europe
SE12 R3 14.00 p. 76

From the Arctic to the Mediterranean: salt, shale and igneous diapirs in and around Europe - Posters
SE12 RHODES-SE 17.30 p. 76

Intraplate earthquakes, stresses and large scale tectonic structure - Posters
SE13 RHODES-SE 17.00 p. 76

3-D crustal imaging of France
SE16 R10 14.00 p. 79

3-D crustal imaging of France - Posters
SE16 RHODES-SE 17.00 p. 80

Geodynamics of collision belts: stacking and exhumation processes - Posters
SE17.1 RHODES-SE 17.00 p. 80

Aspects of the Carpathian-East AlpinePannonian geodynamics: the PANCARDI approach - Posters
SE20 RHODES-SE 17.00 p. 85

Open session on seismology - Posters
SE21 RHODES-SE 17.00 p. 86

Seismic anisotropy, scattering and attenuation
SE23 Hermes 14.00 p. 88

Seismic anisotropy, scattering and attenuation - Posters
SE23 RHODES-SE 17.00 p. 88

High-resolution seismics: theory, methods and applications - Posters
SE25 RHODES-SE 17.00 p. 90

Mechanics of tectonic and volcanic earthquakes
SE27 R9 14.00 p. 91

Mechanics of tectonic and volcanic earthquakes - Posters
SE27 RHODES-SE 17.30 p. 91

Pre-eruptive processes
SE33 Athena 14.00 p. 94

Pre-eruptive processes - Posters
SE33 RHODES-SE 17.30 p. 94

Past and present geomagnetic field - Posters
SE34.2 RHODES-SE 17.00 p. 97

SE **New challenges in environmental research: magneto-monitoring of anthropic influence to ecosystems**
SE34.5 R4 14.00 p. 101

New challenges in environmental research: magneto-monitoring of anthropic influence to ecosystems - Posters
SE34.5 RHODES-SE 17.30 p. 101

Palaeomagnetism and tectonic evolution of the Mediterranean area - Posters
SE34.6 RHODES-SE 17.00 p. 102

Regional magnetic surveys: data, models and charts - Posters
SE37 RHODES-SE 17.00 p. 106

Long term global geophysical data products from remote sensing
SE38 R1 14.00 p. 107

Imaging, analysing and modelling pore structure in geomaterials
SE39.2 R11 14.00 p. 108

Imaging, analysing and modelling pore structure in geomaterials - Posters
SE39.2 RHODES-SE 17.00 p. 109

The effect of rock micro-structure and fluids on rock physical properties - Posters
SE39.3 RHODES-SE 17.00 p. 109

Advances in the physical interpretation of electromagnetic soundings - Posters
SE43 RHODES-SE 17.00 p. 113

Can electromagnetic images constrain geophysical interpretation of tectonically active environments? - Posters
SE44 RHODES-SE 17.00 p. 114

Gas hydrates in nature: results from geophysical and geochemical studies - Posters
SE48 RHODES-SE 17.00 p. 117

Structures and processes in sedimentary fans - Posters
SE51 RHODES-SE 17.00 p. 120

G **Precise satellite orbits for geophysical applications - Posters**
G4 AGORA2-G 17.00 p. 123

Ocean modelling from altimetry and remote sensing I
G5 R7 14.00 p. 125

Ocean modelling from altimetry and remote sensing - Posters
G5 AGORA2-G 17.00 p. 125

High resolution monitoring of land and ice surface with altimetry and SAR interferometry - Posters
G6 AGORA2-G 17.00 p. 127

Atmospheric sounding with GPS - Posters
G9 AGORA2-G 17.00 p. 130

G **Satellite and airborne gravimetric and altimetric techniques - Posters**
G10 AGORA2-G 17.00 p. 130
Effects of the atmosphere, ocean and core on nutation, polar motion and length of day - Posters
G12 AGORA2-G 17.00 p. 131
Models, measurements and analysis of Earth rotation
G12.4 R5 14.00 p. 133

HS **Hydrology and chemical processes - restoration of aquifers: natural and artificial attenuation - Posters**
HSA8 AGORA2-HS 17.00 p. 149
Natural attenuation and intrinsic bioremediation: field studies I
HSA8.1 Gallieni 2 14.00 p. 149
Process representation in hydrological models - can it be achieved? I
HSA9.1 Gallieni 3 14.00 p. 152
Hydrology and applied mathematics - Posters
HSA9.1 AGORA2-HS 17.00 p. 152
Water resources research - Posters
HSB1 AGORA2-HS 17.00 p. 153
Water resources engineering and management - Posters
HSB2 AGORA2-HS 17.00 p. 156
Sustainable development of watersheds and river processes
HSB2.2 Gallieni 5 14.00 p. 156
Dryland degradation in the Mediterranean: threat, processes and mitigation - Posters
HSC1.2 AGORA2-HS 17.00 p. 159
Fire: impact on hydrology, sediment yield and ecosystems of Mediterranean lands
HSC1.3 Mykonos 14.00 p. 159
Sources and transfer of water and sediment in Mediterranean river basins - Posters
HSC1.4 AGORA2-HS 17.00 p. 160

OA **Processes in regions of oceanic time series stations - Posters**
OA2 LES MUSES 17.00 p. 163
The North Atlantic Oscillation: decadal variability in ocean and atmosphere I
OA3 Calliope 14.00 p. 164
The North Atlantic Oscillation: decadal variability in ocean and atmosphere - Posters
OA3 LES MUSES 17.00 p. 164
Circulation variability at mesoscale I
OA4 Uranie 14.00 p. 166
Circulation variability at mesoscale - Posters
OA4 LES MUSES 17.30 p. 166
Antarctic ocean circulation: observations and models - Posters
OA7 LES MUSES 17.00 p. 171
Basic turbulence studies - Posters
OA9 LES MUSES 17.00 p. 173
Fluxes over terrestrial surfaces - Posters
OA10 LES MUSES 17.00 p. 175
Long term measurements of surface fluxes
OA10.2 Erato 14.00 p. 176
Cyclogenesis and fronts: FASTEX - Posters
OA13 LES MUSES 17.00 p. 180
Intercomparison and validation of the ocean-atmosphere flux fields - Posters
OA14.1 LES MUSES 17.00 p. 182

OA **Sensitivity of radiative pertubations in global coupled models - Posters**
OA14.3 LES MUSES 17.30 p. 183
Clouds and their impact on radiation and photo--chemical processes - Posters
OA15 LES MUSES 17.00 p. 184
Radiative transfer and budget
OA15.3 Thalie 14.00 p. 185
Natural climate variability on the basis of past observations I
OA17.2 Euterpe 14.00 p. 189
Heterogeneous and homogeneous chemistry of reactive halogen compounds in the lower troposphere I
OA18 Clio 14.00 p. 193
Heterogeneous and homogeneous chemistry of reactive halogen compounds in the lower troposphere - Posters
OA18 LES MUSES 17.00 p. 194
Biogeochemical processes in submarine hydrothermal systems along the Hellenic Volcanic Island Arc - Posters
OA22 LES MUSES 17.00 p. 199
Marine data management: assimilation, hindcasting and nowcasting - Posters
OA24 LES MUSES 17.00 p. 202
Will the probabilistic approach be the future for numerical weather predictions?
OA26 M2 14.00 p. 203
Will the probabilistic approach be the future for numerical weather predictions? - Posters
OA26 LES MUSES 17.30 p. 204
Marine tropospheric chemistry - Posters
OA27 LES MUSES 17.00 p. 205

ST **Open session on the ionosphere and thermosphere - Posters**
ST3 AGORA3-ST 17.00 p. 209
Open session on the magnetosphere I
ST4 M5 14.00 p. 211
Open session on the magnetosphere - Posters
ST4 AGORA3-ST 17.30 p. 211
Ionospheric modelling and predictions I
ST10 M6 14.00 p. 219
Ionospheric modelling and predictions - Posters
ST10 AGORA3-ST 17.00 p. 219
Theory and simulations of solar system plasmas I
ST12 M8 14.00 p. 222
Theory and simulations of solar system plasmas - Posters
ST12 AGORA3-ST 17.00 p. 222
Modelling and validation with satellite data - Posters
ST15.1 AGORA3-ST 17.00 p. 227
Polar ozone
ST15.2 M7 14.00 p. 227
Polar ozone - Posters
ST15.2 AGORA3-ST 17.00 p. 228
Changes in UV-B radiation - Posters
ST15.3 AGORA3-ST 17.00 p. 228
Tropospheric ozone with emphasis on the Mediterranean region - Posters
ST15.4 AGORA3-ST 17.00 p. 229
Stratosphere-troposphere-exchange II
ST16 M3 14.00 p. 232

PS **Planetary magnetospheres and ionospheres II**
PS4 M1 14.00 p. 240

THURSDAY, 23 APRIL - AFTERNOON SESSIONS CONT.

PS **Planetary magnetospheres and ionospheres - Posters**
PS4 AGORA3-PS 17.00 p. 241
Small bodies of the solar system I
PS5 M4 14.00 p. 241
Small bodies of the solar system - Posters
PS5 AGORA3-PS 17.00 p. 241
Lunar exploration I
PS9 M9 14.00 p. 245
Lunar exploration - Posters
PS9 AGORA3-PS 17.00 p. 245

NP **Biological processes and mixing in the ocean - Posters**
NP3.4 AGORA3-NP 17.00 p. 260
Transport and mixing of chemical species in the atmosphere, including urban and regional problems in the troposphere and global-scale problems in the troposphere and stratosphere
NP3.5 M3 14.00 p. 261
Transport and mixing of chemical species in the atmosphere, including urban and regional problems in the troposphere and global-scale problems in the troposphere and stratosphere - Posters
NP3.5 AGORA3-NP 17.00 p. 261
Nonlinear waves, instabilities and waveflow interactions
NP4.1 Iris 14.00 p. 263
Nonlinear waves, instabilities and waveflow interactions - Posters
NP4.1 AGORA3-NP 17.30 p. 264
Fluctuations, self-organization and natural hazards - Posters
NP4.2 AGORA3-NP 17.30 p. 264
Vortex dynamics - Posters
NP5 AGORA3-NP 17.00 p. 266

NH **Shallow landslides and rainfall triggering**
NH2.5 Studio 14.00 p. 270
Seismic hazard evaluation in high seismicity areas by observing precursory phenomena - Posters
NH3.2 RHODES-NH 17.00 p. 273
Macroseismics: present state of intensity- assessment procedures and future perspectives - Posters
NH3.3 RHODES-NH 17.00 p. 274
Landslide hazards in seismically active regions
NH3.5 R6 14.00 p. 275
Landslide hazards in seismically active regions - Posters
NH3.5 RHODES-NH 17.30 p. 276
Seismic microzonation in urban areas - Posters
NH3.7 RHODES-NH 17.00 p. 276
Volcanic hazards: field studies, instrumentation and observation networks - Posters
NH4 RHODES-NH 17.00 p. 277
Geomorphological hazards: extent, evaluation and mapping techniques - Posters
NH5 RHODES-NH 17.00 p. 279

STA **STAAARTE Workshop**
STAARTE R8 14.10 p. 280

FRIDAY, 24 APRIL - MORNING SESSIONS

SE **Dynamics, mineral physics and tomographic imaging of the Earth's mantle**
SE2 R10 11.00 p. 68
Sedimentary basin modelling and integration of geophysical and sedimentary geology data
SE8 Hermes 08.30 p. 73
Geodynamics of collision belts: stacking and exhumation processes
SE17.1 R3 09.00 p. 80
Continental roots: their petrology, geochemistry and geophysical features II
SE29 R10 08.45 p. 92
Pre-eruptive processes
SE33 Athena 08.30 p. 95
Past and present geomagnetic field
SE34.2 R4 08.45 p. 98
Regional magnetic surveys: data, models and charts
SE37 R2 08.30 p. 106
The effect of rock micro-structure and fluids on rock physical properties
SE39.3 R11 09.00 p. 109
Gas hydrates in nature: results from geophysical and geochemical studies
SE48 R1 08.30 p. 118

G **Precise satellite orbits for geophysical applications**
G4 R8 08.30 p. 124
Ocean modelling from altimetry and remote sensing II
G5 R7 09.00 p. 126
Satellite and airborne gravimetric and altimetric techniques
G10 R7 11.00 p. 130
Effects of the ocean
G12.2 R5 11.00 p. 132
Effects of the core
G12.3 R5 08.30 p. 133

HS **Natural attenuation and intrinsic bioremediation: field studies II**
HSA8.1 Gallieni 2 08.30 p. 150
Redox processes in aquifers
HSA8.3 Gallieni 2 11.00 p. 151
Process representation in hydrological models - can it be achieved? II
HSA9.1 Gallieni 3 08.30 p. 152
Remote sensing and GIS in hydrology
HSB1.3 Gallieni 5 08.30 p. 154
Sources and transfer of water and sediment in Mediterranean river basins
HSC1.4 Mykonos 09.00 p. 160

OA **The North Atlantic Oscillation: decadal variability in ocean and atmosphere II**
OA3 Calliope 08.30 p. 165
Circulation variability at mesoscale II
OA4 Uranie 08.30 p. 167
Antarctic ocean circulation: observations and models
OA7 Uranie 11.00 p. 171
Basic turbulence studies
OA9 Erato 08.30 p. 174
Remote sensing of clouds and aerosols
OA15.1 Thalie 10.00 p. 184
Photo-chemical processes in clouds
OA15.4 Thalie 08.30 p. 186

FRIDAY, 24 APRIL - MORNING SESSIONS CONT.

OA **Natural climate variability on the basis of past observations II**
OA17.2 Euterpe 09.00 p. 190
Heterogeneous and homogeneous chemistry of reactive halogen compounds in the lower troposphere II
OA18 Clio 08.30 p. 195

ST **Open session on the ionosphere and thermosphere**
ST3 M6 10.45 p. 210
Open session on the magnetosphere II
ST4 M5 09.00 p. 212
Ionospheric modelling and predictions II
ST10 M6 08.30 p. 220
Theory and simulations of solar system plasmas II
ST12 M8 09.00 p. 223
Tropospheric ozone with emphasis on the Mediterranean region
ST15.4 M7 08.45 p. 229
Stratosphere-troposphere-exchange III
ST16 M3 08.30 p. 232

PS **Small bodies of the solar system II**
PS5 M4 09.00 p. 242

PS **Lunar exploration II**
PS9 M9 08.30 p. 245

NP **Scaling, multifractals and natural/man- made hazards**
NP1.4 M2 08.45 p. 255
Transport and mixing of chemical species in the atmosphere, including urban and regional problems in the troposphere and global-scale problems in the troposphere and stratosphere II
NP3.5 M3 08.30 p. 262
Fluctuations, self-organization and natural hazards
NP4.2 M1 08.45 p. 264
Vortex dynamics
NP5 Iris 08.30 p. 266

NH **Seismic microzonation in urban areas**
NH3.7 R6 08.30 p. 277
Volcanic hazards: field studies, instrumentation and observation networks
NH4 Studio 09.00 p. 278

FRIDAY, 24 APRIL - AFTERNOON SESSIONS

SE **Dynamics, mineral physics and tomographic imaging of the Earth's mantle**
SE2 R10 14.00 p. 69
Sedimentary basin modelling and integration of geophysical and sedimentary geology data
SE8 Hermes 14.00 p. 74
Pre-eruptive processes II
SE33 Athena 14.00 p. 95
Past and present geomagnetic field
SE34.2 R4 14.00 p. 98
The effect of rock micro-structure and fluids on rock physical properties
SE39.3 R11 14.00 p. 110
Structures and processes in sedimentary fans
SE51 R1 14.00 p. 120

G **Satellite and airborne gravimetric and altimetric techniques**
G10 R7 14.00 p. 130
Effects of the atmosphere
G12.1 R5 14.00 p. 132

HS **Redox processes in aquifers**
HSA8.3 Gallieni 2 14.00 p. 151
Influence of environmental and antropogenic change on flood processes
HSB1.2 Gallieni 5 14.00 p. 154

OA **The North Atlantic Oscillation: decadal variability in ocean and atmosphere II**
OA3 Calliope 14.00 p. 165
Antarctic ocean circulation: observations and models
OA7 Uranie 14.00 p. 171
Basic turbulence studies
OA9 Erato 14.00 p. 174

OA **Remote sensing of clouds and aerosols**
OA15.1 Thalie 14.00 p. 184
Heterogeneous and homogeneous chemistry of reactive halogen compounds in the lower troposphere II
OA18 Clio 14.00 p. 195
Biogeochemical processes in submarine hydrothermal systems along the Hellenic Volcanic Island Arc
OA22 Euterpe 14.00 p. 200

ST **Open session on the ionosphere and thermosphere**
ST3 M6 14.00 p. 211
Open session on the magnetosphere II
ST4 M5 14.00 p. 212
Theory and simulations of solar system plasmas II
ST12 M8 14.00 p. 223
Solar imprints in terrestrial archives
ST14 M4 14.00 p. 225
Ozone as a climate gas
ST15.5 M7 14.00 p. 230

PS **Lunar exploration II**
PS9 M9 14.00 p. 246

NP **Scaling, multifractals and natural/man-made hazards**
NP1.4 M2 14.00 p. 255
Vortex dynamics
NP5 Iris 14.00 p. 266

NH **Volcanic hazards: field studies, instrumentation and observation networks**
NH4 Studio 14.00 p. 278

Society Symposia

EGS1 Tribute to Stephan Mueller .1 Tectonics, structure and dynamics of the Alpine-Mediterranean System

Convener: Ansorge, J.
Co-Convener(s): Banda, E.; Kahle, H.-G.
Tuesday, 21 April 1998
Lecture Room: ATHENA
Chairperson: Kahle, H.-G.

09:00 NOLET, G.
Imaging the upper mantle under the Mediterranean-Alpine region: pushing the limits of seismic interpretation (Solicited Paper)
09:30 **CHANNELL, J.E.T.**; MUTTONI, G.
Paleomagnetism and paleogeography in the Mediterranean (Solicited Paper)
10:00 UDIAS, A.
Seismicity and stress regime in the Mediterranean region (Solicited Paper)
10:30 BREAK

Chairperson: Banda, E.

11:00 HIRN, A.
An approach to seismotectonics of the eastern Mediterranean with marine seismic studies (Solicited Paper)
11:30 KAHLE, H.-G.
Present-day plate movements and strain accumulation in the eastern Mediterranean (Solicited Paper)
12:00 SERRI, G.
Neogene-Quaternary magmatic activity and its geodynamic implications in the central Mediterranean region (Solicited Paper)
12:30 FERNANDEZ, M.
Geothermal regime of the alpine Mediterranean region (Solicited Paper)
13:00 LUNCH

Chairperson: Ansorge, J.

14:00 **CLOETINGH, S.**; HORVATH, F.
Tectonic modelling of sedimentary basin formation in the Alpine-Mediterranean: developments and perspectives (Solicited Paper)
14:30 PRODEHL, C.
Cenozoic rift structures in the surroundings of the Alpine-Mediterranean system (Solicited Paper)
15:00 KISSLING, E.
Deep structure and tectonics of the alpine collision zone (Solicited Paper)
15:30 **WORTEL, M.J.R.**; SPAKMAN, W.
The evolution of the Alpine-Mediterranean region: from structure and kinematics to dynamics (Solicited Paper)
16:00 FROIDEVAUX, C.
Geodynamical modelling: global mantle dynamics and seismic tomography (Solicited Paper)
16:30 END OF SUB-SESSION

EGS1 Tribute to Stephan Mueller .2 Evolution of the African-Eurasian plate boundary

Convener: Channell, J.E.T.
Co-Convener(s): Jacoby, W.R.; Zerbini, S.
Wednesday, 22 April 1998
Lecture Room: ATHENA
Chairpersons: Channell, J.E.; Horvath, F.

09:00 **STAMPFLI, G.M.**; MOSAR, J.
Plate tectonics of the western Tethyan regions (Solicited Paper)
09:30 **SPAKMAN, W.**; BIJWAARD, H.
Lithosphere and mantle structure below the African and European plates
09:45 **HORVATH, F.**; CLOETINGH, S.
Backarc basin evolution at the African-European plate boundary: progress and problems
10:00 BERTOTTI, G.; NEGREDO, A.; SABADINI, R.
Lithospheric processes in the Provencal and Tyrrhenian oceans control the velocity of subduction in Calabria (southern Italy)
10:15 ALVAREZ-MARRON, J.; COMAS, M.C.; CARBONELL, R.
Structure of the Alboran Basin, tectonics at the Iberia-Africa plate boundary from neogene times
10:30 LUCENTE, F.P.; **SPERANZA, F.**
Belt bending as a consequence of lateral bending of subducting lithospheric slab: geophysical evidences from the northern Apennines (Italy)
10:45 **VAN DER MEULEN, M.J.**; MEULENKAMP, J.E.; WORTEL, M.J.R.; KOUWENHOVEN, T.J.; VAN DEN BERG VAN SAPAROEA, A.P.H.; VAN DER ZWAAN, G.J.
The surface effects of SLAB detachment: geological constraints from Apenninic foredeeps
11:00 ARGNANI, A.
Cenozoic Africa-Europe convergence in the central Mediterranean: kinematics and geological implications
11:15 REGENAUER-LIEB, K.
Lithosphere dynamics and void - volatile interaction int he European Alpine collision (Solicited Paper)
11:45 LUNCH
12:00 Business Meetings

Chairpersons: Jacoby, W.R.; Zerbini, S.

14:00 COSCA, M.
When was the EO-alpine phase of orogenesis? (Solicited Paper)
14:30 **CHEILLETZ, A.**; RUFFET, G.; MARIGNAC, C.; KOLLI, O.; GASQUET, D.; FERAUD, G.; BOUILLIN, J.P.
$^{40}Ar/^{39}Ar$ evidence of an Eo-Alpine event (128 Ma) in greater Kabylia (Algeria): geodynamic consequences
14:45 **FACCENNA, C.**; SPERANZA, F.; FUNICIELLO, R.
Does subduction initiate at passive margins? Experiments and geological records in the Mediterranean
15:00 SPERNER, B.; ZWEIGEL, P.; MOSER, F.; GIRBACEA, R.; LORENZ, F.P.
Plate-tectonics of the Carpathian Arc

15:15 **LORENZ, F.P.**; MARTIN, M.; SPERNER, B.; WENZEL, F.; POPA, M.
Teleseismic imaging of the Vrancea zone, Romania

15:30 MANTOVANI, E.; ALBARELLO, D.; TAMBURELLI, C.; BABBUCCI, D; VITI, M.
Mediterranean evolution: a simple interpretation based on the minimum work condition (Solicited Paper)

16:00 **MARTON, E.**; DROBNE, K.; COSOVIC, V.
Tertiary counterclockwise rotation of Adria as evidenced by new paleomagnetic data from Istria and NW Dinarids

16:15 KOZUR, H.W.
The position of the African-Eurasian plate boundary during the Permian to Jurassic (Solicited Paper)

16:45 END OF SUB-SESSION

EGS1 Tribute to Stephan Mueller .2 Evolution of the African-Eurasian plate boundary - Poster Session

Convener: Channell, J.E.T.
Co-Convener(s): Jacoby, W.R.; Zerbini, S.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: RHODES - SE

SE001 ALFONSI, L.; DI BELLA, L.; FLORINDO, F.; FREPOLI, A.; MARIUCCI, M.T.; MARRA, F.; MONTONE, P.; SAGNOTTI, L.; **WINKLER, A.**
Pliocene to present stress-field evolution of the central Apennines Adriatic margin (Italy): an integrated geophysical approach

SE002 **CIANETTI, S.**; GIUNCHI, C.; GASPERINI, P.; BOCCALETTI, M.
The active tectonics of the Aegean region: insights from numerical models

SE003 **MEIJER, P.TH.**; WORTEL, M.J.R.
Model analysis of the evolution of intra-plate stress in the central Mediterranean

SE004 MANTOVANI, E.; VITI, M.; ALBARELLO, D.; TAMBURELLI, C.; BABBUCCI, D.
Numerical simulation of the recent/present kinematic pattern in the central-eastern Mediterranean area

SE004A **CARMINATI, E.**; WORTEL, M.J.R.; MEIJER, P.TH.; SPAKMAN, W.; VAN DER MEULEN, M.J.; SABADINI, R.
The role of the Africa-Eurasia plate boundary in the two stage opening of the western and central Mediterranean basins *

SE005 ANDEWEG, B.; DE VICENTE, G.; CLOETINGH, S.; MUNOZ MARTIN, A.
Modelling of tertiary to present day stress fields in the Iberian Peninsula and related intraplate deformation

SE006 **BUITER, S.J.H.**; GOVERS, R.; WORTEL, M.J.R.
Numerical simualtions of the surface effects of slab detachment: the Apennines

SE007 **NEGREDO, A.M.**; SABADINI, R.; BIANCO, G.; FERNANDEZ, M.
Dynamic modelling of crustal motions and sea-level changes related to subduction and convergence in the central Mediterranean

SE008 **BEN-AVRAHAM, Z.**; WDOWINSKI, S.; ARVIDSON, R.; EKSTRÖM, G.
Segmentation and seismicity of the Cyprean Arc

SE009 LIVSHITS, YU.YA.
The tectonic position and structure of Sinai subplate, eastern Mediterranean

SE010 KHAIN, V.E.
Wilson's and Bertrand's cycles in the evolution of the Mediterranean and Ural-Okhotsk intercontinental mobile belt

SE011 BARIS, S.; PINAR, A.; KOMUT, T.; ISIKARA, A.M.
Source process and seismotectonic implications of the 13.10.1997 (Ms=6.6) and 18.11.1997 (Ms=6.4) southern Greece earthquakes *

EGS1 Tribute to Stephan Mueller .3 Seismicity and seismotectonics of the Mediterranean region

Convener: Garcia-Fernandez, M.
Co-Convener(s): Mayer-Rosa, D.; Panza, G.F.
Thursday, 23 April 1998
Lecture Room: ATHENA
Chairperson: Stucchi, M.

08:30 SUHADOLC, P.
Seismicity, active tectonic and GIS: understanding seismic hazard (Solicited Paper)

09:00 GIARDINI, D.; GRUENTHAL, G.; AND THE WORKING GROUPS OF PROJECTS CAUCAS, IBERO-MAGHREB, SESAME, ADRIA, RELEMR, BEECD.QSEZ-CIPAR
Regional seismic hazard assessment in the European-Mediterranean: a GSHAP review

09:15 BAER, M.
Monitoring the regional and global seismicity by national/regional data centres

09:30 **VACCARI, F.**; AOUDIA, A.; BUS, Z.; MARKUSIC, S.; OROZOVA, I.; RADULAIAN, M.; SIVCIC, M.; PANZA, G.F.
Quantitative seismic zoning in the Mediterranean area

09:45 SAMARDJIEVA, E.; **BADAL, J.**; PAYO, G.
A new catalogue of digitized historical seismograms for Iberian earthquakes

10:00 SOURIAU, A.; PAUCHET, H.; SYLVANDER, M.
A new, accurate map of the Pyrenean seismicity and its tectonic implications

10:15 **PAUCHET, H.**; RIGO, A.; RIVERA, L.; SOURIAU, A.
A detailed analysis of the February 1996 aftershock sequence in eastern Pyrenees, France

10:30 BREAK

Chairperson: Erdik, M.

11:00 **EVA, E.**; SOLARINO, S.; SPALLAROSSA, D.; EVA, C.
Seismicity and seismotectonic of the western Ligurian Sea: a review

11:15 MARRA, E.
Low-magnitude earthquakes of Rome: structural interpretation and possible seismotectonic implications

11:30 ALBINI, P.; REBEZ, A.; **STUCCHI, M.**
Long-term seismicity patterns around Adriatic region
11:45 HOFSTETTER, R.
Seismicity and seismotectonics of the eastern Mediterranean (Solicited Paper) *
12:15 PAPOULIA, J.
Reliability of seismic hazard assessment in terms of observed macroseismic intensities in Greece
12:30 KULOSHVILI, S.
The main features of active tectonics and seismotectonics of the Caucasus
12:45 **SLEJKO, D.**; PERUZZA, L.; REBEZ, A.
Different aspects and considerations on seismic hazard in the Adriatic region
13:00 END OF SESSION

EGS1 Tribute to Stephan Mueller .3 Seismicity and seismotectonics of the Mediterranean region

Convener: Garcia-Fernandez, M.
Co-Convener(s): Mayer-Rosa, D.; Panza, G.F.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairperson: Badal, J.

SE103 **PONDRELLI, S.**; MORELLI, A.; EKSTRÖM, G.
Moment tensors and seismotectonics of the Mediterranean region
SE104 MANTOVANI, E.; ALBARELLO, D.; BABBUCCI, D.; TAMBURELLI, C.
Recent/present tectonic processes in the Italian region and their relation with seismic and volcanic activity
SE105 **PERUZZA, L.**; STUCCHI, M.; CAMASSI, R.
Lessons from the past: seismogenesis and hazard in central Italy
SE106 VITI, M.; ALBARELLO, D.; MANTOVANI, E.
Seismic strain rate estimates in the central-eastern Mediterranean region: a reliability analysis
SE107 **MICHELINI, A.**; ZIVCIC, M.; SUHADOLC, P.
Simultaneous inversion for velocity structure and hypocenters in Slovenia
SE108 **ERDIK, M.**; BIRGÖREN, G.; APAYDYN, N.; ALPAY, Y.
Assessment of the seismic hazard in Cyprus
SE109 **HOFSTETTER, R.**; SHAPIRA, A.
Determination of earthquake energy release in the eastern Mediterranean region

EGS2 Geophysical and geological signatures of past and present climate change

Convener: Premoli-Silva, I.
Co-Convener(s): Herbert, T.D.; Maley, J.
Monday, 20 April 1998
Lecture Room: R1
Chairperson: N.N.

08:45 **KOSTYANEV, S.G.**; BALTAKOV, G.K.
Reconstruction of the paleoclimate of north Bulgaria during the Pleistocene and Holocene
09:00 BODRI, L.; **CERMAK, V.**
Last millennium climate history inferred from borehole temperature profiles: regional patterns of climatic changes in the Czech Republic
09:15 **DELLA VEDOVA, B.**; PELLIS, G.; REBESCO, M.; SCARAZZATO, P.; CORSELLI, C.; CAMERLENGHI, A.; URANIA 19/97 CRUISE PARTY
New oceanographic data and heat flow measurements in the sediment keep track of the actual climate change in the eastern Mediterranean
09:30 MÖRNER, N.-A.
Sea level changes in the near future
09:45 KOHL, T.
Subsurface temperature signals in mountain area
10:00 PELTIER, W.R.
Earth's rotational response to the late-Pleistocene glacial cycle and to current global change (Solicited Paper)
10:30 BREAK

Chairperson: Hübscher, C.

11:00 **RASPOPOV, O.M.**; SHUMILOV, O.I.; KASATKINA, E.A.; PETROVA, G.N.; DERGACHEV, V.A.; CREER, K.
Connection between the changes of geomagnetic field intensity and climate changes in the Holocene
11:15 **BEAUFORT, L.**; LANCELOT, Y.; CAMBERLIN, P.; CAYRE, O.; VINCENT, E.; BASSINOT, F.; LABEYRIE, L.
Primary production dynamics in the equatorial Indian Ocean: southern oscillation and/or monsoon origins
11:30 **SCHMITT, F.**; SCHERTZER, D.; LOVEJOY, S.
Multifractal analysis of ice core climate data
11:45 **HERBERT, T.D.**; GEE, J.S.
Can we use sedimentary records to deduce long-term changes in the Earth's orbital eccentricity?
12:00 **KÖSSLER, P.**; ERBACHER, J.; APPEL, E.
Rock magnetic signature of Milankovitch cyclicity recorded in mid-cretaceous hemipelagic sediments of the Vocontian basin (SE France)
12:15 **SERANNE, M.**; NZE ABEIGNE, C.-R.
Stratigraphic signature of tertiary climate change on west African margins
12:30 **STULC, P.**; SAFANDA, J.; KRESL, M.; CERMAK, V.; SIR, M.
Monitoring climate change in the Earth's subsurface
12:35 CORREIA, A.; SAFANDA, J.
Comparison of geothermal ground surface temperature history with instrumental air temperature series in mainland Portugal
12:40 **TARASOV, P.E.**; DOROFEYUK, N.I.
Holocene vegetation, lake level and climate change in Mongolia: a response to the insolation forcing
12:45 MÖRNER, N.-A.
Neotectonics and global climate
12:50 END OF SESSION

Surveys in Geophysics

the EGS journal for the publication of extended and refereed review articles in all disciplines concerning geo- and space sciences. *Surveys in Geophysics* is published by Kluwer Academic Publishers.

EGS2 Geophysical and geological signatures of past and present climate change - Poster Session

Convener: Premoli-Silva, I.
Co-Convener(s): Herbert, T.D.; Maley, J.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE

SE301 **STULC, P.**; SAFANDA, J.; KRESL, M.; CERMAK, V.; SIR, M.
Monitoring climate change in the Earth's subsurface

SE302 CORREIA, A.; SAFANDA, J.
Comparison of geothermal ground surface temperature history with instrumental air temperature series in mainland Portugal

SE303 **TARASOV, P.E.**; DOROFEYUK, N.I.
Holocene vegetation, lake level and climate change in Mongolia: a response to the insolation forcing

SE304 MÖRNER, N.-.A.
Neotectonics and global climate

EGS3 Modelling techniques and joint inversion in Earth sciences

Convener: Götze, H.-J.
Co-Convener(s): Meurers, B.; Romanyuk, T.V.; Schmidt, S.; Strykowski, G.
Monday, 20 April 1998
Lecture Room: R4
Chairperson: Götze, H.-J.
Editors: Götze, H.-J.; Meurers, B.; Romanyuk, T.V.; Schmidt, S.; Strykowski, G.

09:00 GÖTZE, H.-J. AND CONVENERS
Introductional remarks

09:15 BREUNING, M.; CREMERS, A.B.; GÖTZE, H.-J.; SCHMIDT, S.; **SEIDEMANN, R.**; SHUMILOV, S.; SIEHL, A.
EGS3-001
First steps towards an interoperable 3D GIS - an example from southern lower Saxony, Germany (Solicited Paper)

09:45 **SCHMIDT, S.**; GÖTZE, H.-J.
EGS3-002 Integration of data constraints and potential field modelling - an example from southern Lower Saxony (Oral + Poster)

10:00 **KLESPER, C.**; SCHMIDT, S.; GÖTZE, H.-J.
EGS3-003 IVIS-3D goes WWW: how to use offline rendering capabilities for the 3D visualization in the World Wide Web

10:15 BREAK

Chairperson: Strykowski, G.
Editors: Götze, H.-J.; Meurers, B.; Romanyuk, T.V.; Schmidt, S.; Strykowski, G.

10:45 PELTIER, W.R.
EGS3-004 The inverse problem for mantle viscosity: new results based upon joint inversion of glacial isostatic adjustment data (Solicited Paper)

11:15 LOEWENTHAL, D.
EGS3-005 Mathematical physica enigma: bending Snell's rays or straight trajectories

11:30 **MULLER, S.**; LEGRAND, J.-F.; GARDA, P.; MULLER, J.-D.; CANSI, Y.; CRUSEM, R.
EGS3-006 Seismic events discrimination by a neuro-fuzzy merging of incomplete data

11:45 STRYKOWSKI, G.
EGS3-007 Some technical details concerning a new method of joint gravimetric-seismic inversion

12:00 **KOBRUNOV, A.I.**; MOISEYENKOVA, S.V.; KHOLODILOV, D.V.
EGS3-008 To a technique of automated complex interpretation of geophysical data

12:15 **NIELSEN, L.**; JACOBSEN, B.J.; BALLING, N.
EGS3-009 Joint gravimetric and wide-angle seismic inversion for crustal modelling with applilcation to the central graben, North Sea

12:30 LUNCH

Chairperson: Meurers, B.
Editors: Götze, H.-J.; Meurers, B.; Romanyuk, T.V.; Schmidt, S.; Strykowski, G.

14:00 **SPAKMAN, W.**; NYSET, M.
EGS3-010 A novel method for the inversion of relative displacement data: joint estimation of continuous crustal deformation and fault slip

14:15 JACOBSEN, B.H.; **JENSEN, J.M.**; MOLLER, I.; EFFERSO, F.
EGS3-011 Multi-channel deconvolution in geophysics and helioseismology

14:30 **GAK, E.Z.**; GRIDIN, V.I.
EGS3-012 The modelling techniques for studying the properties of geophysical fields in singular areas

14:45 STEPANOVA, I.E.
EGS3-013 Integral equation for a 3D potential inversion problem

15:00 STRAKHOV, V.N.; **STEPANOVA, I.E.**; STRAKHOV, A.V.; GRICHUK, L.V.
EGS3-014 The integral representation method at the solution of 3D inverse problems in gravimetry and magnetometry

15:15 **LEGOSTAEVA, O.V.**; STAROSTENKO, V.I.; YEGOROVA, T.P.
EGS3-015 Automatized system of 3-D gravity modelling: the main principles and software

15:30 **BARRIO-ALVERS, L.**; GÖTZE, H.-J.; SCHECK, M.
EGS3-016 Density structure of the northeast German basin: 3D modelling along the DEKORP NE-profile

15:45 **ROMANYUK, T.V.**; GÖTZE, H.-J.
EGS3-017 A density model of Andean subduction zone

16:00 ARANEDA, M.; AVENDAQO, M.S.; SCHMIDT, S.; GOETZE, H.J.
EGS3-018 Gravimetric modellings of the southern Andes (38:-42:S)

16:15 BERCOVSKA, V.
EGS3-019 Part of the new concert for oil formation in scientific informational models

16:30 END OF SESSION
17:00 Opening
19:30 Reception

Attend the Poster Session

EGS3 Modelling techniques and joint inversion in Earth sciences - Poster Session

Convener: Götze, H.-J.
Co-Convener(s): Meurers, B.; Romanyuk, T.V.; Schmidt, S.; Strykowski, G.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE

Chairperson: Schmidt, S.
Editors: Meurers, B.; Romanyuk, T.V.; Schmidt, S.; Strykowski, G.

SE305 EGS3-002 **SCHMIDT, S.**; GÖTZE, H.-J.
Integration of data constraints and potential field modelling - an example from southern Lower Saxony

SE306 EGS3-020 **SPAKMAN, W.**; BIJWAARD, H.
Irregular cell parameterization of tomographic problems

SE307 EGS3-021 **PISERCHIA, P.-F.**; RODRIGUES, D.; VIRIEUX, J.; GAFFET, S.; LAMBARE, G.
Numerical modelling of T-wave propagation

SE308 EGS3-022 **MONTELLI, R.**; NOLET, G.; VIRIEUX, J.
Calculating the resolution and the covariance matrix without using singular value decomposition

SE309 EGS3-023 **KOBRUNOV, A.I.**; MOISEYENKOVA, S.V.; KHOLODILOV, D.V.
Construction of a detailed model of geological media based on solving a multiparametrical inverse problem

SE310 EGS3-024 BREUNING, M.; CREMERS, A.B.; GÖTZE, H.-J.; SCHMIDT, S.; **SEIDEMANN, R.**; SHUMILOV, S.; SIEHL, A.
Generation of geological maps by an interoperable approach - an example from southern lower Saxony, Germany

SE311 EGS3-025 **KLESPER, C.**; SCHMIDT, S.; GÖTZE, H.-J.
Concept and examples of interactive visualization with IVIS-3D

SE312 EGS3-026 **BIELIK, M.**; HRUSECKY, I.; KOHUT, I.; KOSTECKY, P.
Lithosphere structure of the sedimentary basins in the Carpatho-Pannonian region as inferred from interpretation of geophysical data

SE313 EGS3-027 **MORDVINOVA, V.V.**; KOSAREV, G.L.
Velocity structure of crust and upper mantle beneath the Baikal rift and its surroundings

EGS4 Space techniques for acquisition of aeronomic-ionospheric data in the lower thermosphere

Convener: Laneve, G.
Co-Convener(s): Herrero, F.A.
Thursday, 23 April 1998
Lecture Room: R2
Co-sponsored by: CRPSM
Chairperson: N.N.
Editors: Herrero, F.A.; Laneve, G.

14:00 EGS4-001 HERRERO, F.A.
In-situ measurements of the neutral and ionic components of the lower thermosphere: a review (Solicited Paper)

14:30 EGS4-002 PFAFF, R.F.
Exploration of the lower ionosphere and thermosphere using in-situ measurements on low perigee satellites

14:45 EGS4-003 **GREBOWSKY, J.M.**; CURTIS, S.A.
Geospace electrodynamics mission

15:00 EGS4-004 **CLEMMONS, J.H.**; HERRERO, F.A.; PFAFF, R.F.
New instrumental techniques for in-situ measurements in the lower thermosphere/ionosphere

15:15 EGS4-005 HERRERO, F.A.
Measurements of the altitude distribution of the horizontal wind with "weather-vanes" on a tether satellite

15:30 EGS4-006 PFAFF, R.F.
Electric field measurements in the lower ionosphere (80-150 km) using sounding rocket probes

15:45 EGS4-007 AVAKYAN, S.V.
Some purposes and methods of the satellite measurments of the ignorospheric response on the solar flares

16:00 EGS4-008 CARROLL, J.A.; **VAN DER HEIDE, E.J.**; KRUIJFF, M.
Options for coordinated multi-point sensing in the lower thermosphere

16:15 EGS4-009 LANEVE, G.
Small satellites for studies in the lower thermosphere

16:30 EGS4-010 **ILLES-ALMAR, E.**; ALMAR, I.; BENCZE, P.; LANEVE, G.
Wave-like variations and sudden density decreases in the lower thermospehre as measured by the San marco V satellite

16:45 EGS4-011 KOREPANOV, V.
Electrodynamic tether system

17:00 END OF SESSION

1999 General Assembly
Den Haag, 19 - 23 April

Attend the open EGS Section/IWG Meetings on Wednesday, 22 April, 12.00-14.00, and make your suggestions to the scientific programme. Further information on the EGS Web Site http://www.copernicus.org/EGS/EGS.html.

Solid Earth Geophysics

SE1 Open session on tectonophysics

Convener: Sabadini, R.
Monday, 20 April 1998
Lecture Room: R2
Chairperson: N.N.

08:30 DUMA, G.
Stress variations in seismic zones are clearly reflected in long term and diurnal geomagnetic variations
08:45 GONCHAROV, M.A.
Ridges and depressions: transversal ones in spreading zones and longitudinal ones in collision zones, as a result of two-stage convection
09:00 **GABRIEL, G.**; JAHR, T.
The Harz Mountains, Germany: the result of wrench-fault tectonics?
09:15 **POLIAKOV, A.N.B.**; BUCH, W.R.
Faulting in mid-ocean ridges: formation of abyssal hills
09:30 **HASSANZADEH, J.**; ESMAEELI FARD, S.
Geothermal gradient variations in Iran and their geotectonic implications
09:45 MOAKHAR, M.O.; **ELMING, S.-A.**
Uplift deduced from a palaeomagnetic study of neoproterozoic study of dykes in central of Sweden
10:00 **FERAUD, G.**; AGUIRRE, L.; MORATA, D.; VERGARA, M.; PUGA, E.; FEDERICO, A.D.
Precise time constraints on the evolution of an extensional basin from the coastal range of central Chile
10:15 GOLITSYN, G.S.
Three simple derivations of Gutenberg-Richter law
10:30 END OF SESSION

SE1 Open session on tectonophysics - Poster Session

Convener: Sabadini, R.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE

SE133 **GEMMER, L.**; BOM NIELSEN, S.; LYKKE-ANDERSEN, H.
Trends in deformation patterns in the Danish and surrounding areas investigated by 3D finite element modelling
SE134 PASQUALE, V.; VERDOYA, M.; CHIOZZI, P.
Deep seismic sources and critical temperature
SE135 **GONCHAROV, M.A.**; TALITSKY, V.G.
Transform faults at mid-oceanic-ridges as a result of diffused heterogeneous extension of medium with transversal convection structure
SE136 FROLOVA, N.S.; GEPTNER, T.M.; **GONCHAROV, M.A.**
Horizontal compression of a layered sequence: folding or thrusting?

SE2 Dynamics, mineral physics and tomographic imaging of the Earth's mantle - Poster Session

Convener: Montagner, J.-P.
Co-Convener(s): Schmeling, H.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE

SE156 PANKOV, V.L.; BUBNOVA, N.YA.; KALACHNIKOV, A.A.
Equation of state of magnesiowuestite and wuestite
SE157 **VAN HUNEN, J.**; VAN DEN BERG, A.P.; VLAAR, N.J.
The fate of young subducting lithosphere
SE158 **CIZKOVA, H.**; VAN DEN BERG, A.P.; VLAAR, N.J.
Could the slab-like structure found to extend into the deep lower mantle be explained by thermal coupling?
SE159 **MOCQUET, A.**; CASTILLO, J.; VACHER, P.
Some tests on the reflexion and transmission properties of the 660 km seismic discontinuity
SE160 **MASSON, F.**; LEVEQUE, J.-J.
From ACH teleseismic tomography to absolute velocity
SE161 **DUMOULIN, C.**; DOIN, M.-P.; FLEITOUT, L.
Heat transfer at the base of the lithosphere for a Newtonian and Non-Newtonian, highly temperature and pressure dependent rheology
SE162 **MAMBOLE, A.**; FLEITOUT, L.; LABROSSE, G.; TRIC, E.
Onset of convection in binary fluids with temperature-dependent viscosity
SE163 **DEVAUX, J.P.**; SCHUBERT, G.; ANDERSON, C.
Formation of a metastable olivine wedge in a subducting slab
SE164 **INSERGUEIX-FILIPPI, D.**; DUPEYRAT, L.; TRIC, E.; MENVIELLE, M.
Influence of plate kinematics, convection intensity, and subduction geometry on Earth's upper mantle dynamics
SE165 **COLLIER, J.**; HELFFRICH, G.
"410" and "660" km discontinuity properties and thermodynamic models

SE2 Dynamics, mineral physics and tomographic imaging of the Earth's mantle

Convener: Montagner, J.-P.
Co-Convener(s): Schmeling, H.
Friday, 24 April 1998
Lecture Room: R10
Chairperson: Vacher, P.

11:00 WALZER, U.; HENDEL, R.
A new convection-segregation model explaining the origin of the principal geochemical reservoirs of the Earth's mantle
11:15 VAN DER HILST, R.; KARASON, H.
Aspherical structure of Earth's lower mantle

11:30 BRUNET, D.; YUEN, D.A.; MACHETEL, P.
Dynamics of superplumes generated by phase transitions and variable viscosity convection
11:45 LARSON, E.; EKSTRÖM, G.; **TROMP, J.**
Surface-wave polarization tomography
12:00 **O'CONNELL, R.J.**; STEINBERGER, B.
Effects of mantle flow on the orientation, distribution and motion of plumes and slabs
12:15 **CADEK, O.**; FLEITOUT, L.
Geoid and dynamic topography for the mantle with a partially permeable boundary between upper and lower mantle
12:30 DAVAILLE, A.
Dynamics and fate of a stratified mantle: mixing and hot spots
12:45 ISHII, M.; **TROMP, J.**
Normal-mode constraints on mantle structure
13:00 LUNCH

Chairperson: N.N.

14:00 CORMIER, V.F.
Anisotropy of heterogeneity scale lengths in the lower mantle
14:15 **STEINBACH, V.**; YUEN, D.A.; VLAAR, N.J.
The influence of surface temperature on planetary convection with phase transitions
14:30 **PANKOV, V.L.**; BABEYKO, A.A.; KALACHNIKOV, A.A.
Phase diagrams of the mantle mineral systems and the mantle transition zone
14:45 **EBERLE, M.A.**; GRASSET, O.; SOTIN, C.
A numerical study of the dynamics of subducting slabs and transport of melt through the mantle wedge
15:00 **VACHER, P.**; TRAMPERT, J.; VLAAR, N.J.
Temperature, pressure and compositional derivatives of seismic velocities with application to the lower mantle
15:15 KHRISTOFOROVA, N.N.
Heat cells and mantle convection
15:30 BREAK

Chairperson: N.N.

16:00 **BIJWAARD, H.**; SPAKMAN, W.; ENGDAHL, E.R.
Preliminary results from nonlinear global travel-time tomography
16:15 **RICARD, Y.**; MATAS, J.; LE STUNFF, Y.; GUYOT, F.
Phase transitions in the upper mantle
16:30 **SOLHEIM, L.P.**; PELTIER, W.R.
Phase transition modulated mantle convection with pressure and temperature dependent rheology: implications for the radial viscosity structure in the Earth
16:45 DILLISSE, I.; **GOES, S.**; GOVERS, R.; VACHER, P.
Seismic velocity, temperature and composition: the Mendocino triple junction area
17:00 THIO, H.K.
The upper mantle under the Tyrrhenian Sea from a broad-band study of deep earthquakes
17:15 VAN DER HILST, R.; SIMONS, F.
Constraints on the structure of the upper mantle beneath Australia from waveform tomography
17:30 **LEVEQUE, J.-J.**; DEBAYLE, E.
Lithospheric and asthenospheric structure of the Indian Ocean from a waveform tomography
17:45 **BILLIEN, M.**; TRAMPERT, J.; LEVEQUE, J.-J.
Global attenuation tomography from fundamental mode surface wave data

Stand-by papers

BULATOVA, N.P.
About the ray's angles for the neutrino tomography of the Earth
BULATOVA, N.P.; NECHAEV, V.V.
The modelling of irregularities of the Earth crust in 3D matrice's slices
BULATOVA, N.P.
The account of the Earth's characteristics along the ray and the sections for the Earth's tomography

18:00 END OF SESSION

SE3 Seismology and physics of the Earth's core and mantle

Convener: Kind, R.
Co-Convener(s): Jacob, A.W.B.; Weber, M.
Thursday, 23 April 1998
Lecture Room: R2
Chairperson: Weber, M.

08:30 SOURIAU, A.
Inner core rotation: pssible artefacts and new data (Solicited Paper)
09:00 **DEUSS, A.**; PAULSSEN, H.; TRAMPERT, J.; WOODHOUSE, J.
Analysis of inner core S- and P-waves
09:15 **MAJEWSKI, E.**; WALKER, D.
Soret diffusion experiments and implications for the evolution of Earth's core
09:30 LIU, X.-F.; **TROMP, J.**; DZIEWONSKI, A.M.
On the origin of SCS and PCP precursors
09:45 **CALMANT, S.**; PELLETIER, B.; PILLET, R.; REGNIER, M.; LEBELLEGARD, P.; BORE, J.-M.
Inter-seismic and co-seismic displacements in GPS series across the New Hebrides subduction zone
10:00 **CAKIR, Ö.**; YILMAZTÜRK, A.
Model studies of sub-oceanic Po and So waves and their frequency dependence of Q
10:15 BREAK

Chairperson: Jacob, A.W.B.

10:45 **YUAN, X.**; KIND, R.; BOCK, G.
Receiver function constraints on slab geometry and upper mantle discontinuities under northern Chile (Solicited Paper)
11:15 **LI, X.**; YUAN, X.; KIND, R.; ESTABROOK, CH.
Effects of the subducting Pacific plate on the upper mantle seismic discontinuities
11:30 BOCK, G.
Topography of mantle discontinuities
11:45 **OLIVIERI, M.**; MORELLI, A.
Constraints on upper mantle discontinuities beneath the Mediterranean region from P-to-S conversions

12:00 ERDURAN, M.; **CAKIR, Ö.**
Receiver function analysis for the station TBZ, Turkey
12:15 KUTLU, Y.A.; **CAKIR, Ö.**
Shear wave propagation under northeast Anatolia
12:30 **CINAR, H.**; YILMAZTÜRK, A.; CAKIR, Ö.
Crustal structure in and around the eastern Turkey from single station Rayleigh wave observations
12:45 GÖKALP, H.; **CAKIR, Ö.**; CHIRABBA, C.
Different approaches in the local earthquake tomography: an application on Alban Hills Volcano (Central Italy)
13:00 END OF SESSION

SE5 Geodynamics of the lithosphere: images and models of active tectonics

Convener: Furlong, K.P.
Co-Convener(s): Wortel, M.J.R.
Wednesday, 22 April 1998
Lecture Room: R3
Chairpersons: Furlong, K.P.; Loohuis, J.J.P.

08:45 **TORNE, M.**; FERNANDEZ, M.; COMAS, M.C.; SOTO, J.I.
Lithospheric structure of the Alboran Basin (W-Mediterranean): results from 3D modelling of gravity heat flow and elevation data
09:00 LOOHYIS, J.J.P.; WORTEL, M.J.R.; MEIJER, P.TH.
Modelling of the first order dynamics of the Eurasian plate; application to the Alpine thrust
09:15 **PLOMEROVA, J.**; BABUSKA, V.; SILENY, J.
Variations of seismic anisotropy in European mantle
09:30 **LUNDBEK HANSEN, D.**; BOM NIELSEN, S.
Numerical modelling of crustal shortening and inversion in sedimentary basins
09:45 **HEBERT, H.**; DEPLUS, C.; DIAMENT, M.
Characterization and modelling of the intraplate deformation in the Wharton basin (N-E Indian Ocean)
10:00 **NYST, M.**; SPAKMAN, W.; SIMONS, W.; AMBROSIUS, B.
Inversion of the GEODYSSEA 94/96 (GPS) data for crustal strain and fault slip
10:15 CUMMINS, P.R.; KANEDA, Y.; HIRANO, S.
Modelling of deformation due to subduction along the Japan Trench
10:30 GOVERS, R.
Numerical simulations of transpression
10:45 **FURLONG, K.P.**; ANDERSON, H.
Lithospheric tectonics of a transpressional plate boundary: Fiordland, New Zealand
11:00 **LAMARCHE, G.**; LEBURN, J.-F.; COLLOT, J.-Y.
Tectonics at a transform-subduction relay zone. The Puysegur Area, south of New Zealand
11:15 **COLLOT, J.-Y.**; LEBRUN, J.-F.; LAMARCHE, G.; DELTEIL, J.
Transform-subduction transitions: a comparison at both ends of the alpine fault, New Zealand
11:30 **LEBRUN, J.-F.**; COLLOT, J.-Y.; LAMARCHE, G.
Evolution of the PAC/AUS plate boundary south of New Zealand: initiation of the Puysegur subduction along a strike-slip plate boundary
11:45 LUNCH
12:00 Business Meetings

Chairpersons: Govers, R.; Schott, B.

14:00 **VAN WIJK, J.W.**; GOVERS, R.
3-D thermal modelling of the southern Californian upper mantle; the tectonic history of microplates
14:15 **ROMANYUK, T.V.**; MOONEY, W.D.; BLAKELY, R.J.
Subduction of a mid-ocean ridge beneath the northeast Pacific margin of North America
14:30 FURLONG, K.P.
Mantle driven active tectonics at the Mendocino Triple Junction, California
14:45 **SABADINI, R.**; VERMEERSEN, L.L.A.; CESCA, S.
Post-seismic deformation in a spherical geometry with some applications to real events
15:00 **FERNANDEZ, J.**; RUNDLE, J.B.; YU, T.-T.
Model for inelastic postseismic deformation
15:15 REGENAUER-LIEB, K.; **YUEN, D.A.**
The importance of thermal-mechanical coupling in necking process of an elastro-viscoplastic lithosphere
15:30 **REGENAUER-LIEB, K.**; HOCHSTEIN, M.P.
Mechanicam heating and fracturing on ductile shear zones in Asia
15:45 **SCHOTT, B.**; YUEN, D.A.; SCHMELING, H.
The significance of dissipative heating in delamination and subduction processes
16:00 **REGENAUER-LIEB, K.**; HOCHSTEIN, M.P.
Heat generation associated with the collision of two plates: the Himalayan geothermal belt
16:15 END OF SESSION

SE5 Geodynamics of the lithosphere: images and models of active tectonics - Poster Session

Convener: Furlong, K.P.
Co-Convener(s): Wortel, M.J.R.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairperson: Malservisi, R.

SE012 KORYAKIN E.D.; STROEV, P.A.; GRUSHINSKY, A.N.
The global distribution of average (5 x 5 deg.) depths of Moho discontinuity: implication to plate tectonics
SE013 **FREDERIKSEN, S.**; NIELSEN, S.B.; BALLING, N.
Numerical modelling of basin evolution in the Norwegian-Danish basin
SE014 NICOLLIN, F.; DAUTEUIL, O.; ANGELIER, J.
Wavelet analysis of bathymetric profiles from Mid-Atlantic Ridge: tectonic implications
SE015 RODNIKOV, A.G.
Results of studies of the lithosphere in the transition zone from the Asian continent to the Pacific Ocean by the system of geotraverses
SE016 LEBEDEV, S.; **NOLET, G.**
Surface wave diffraction tomography of the southeast Asia marginal basins

SE017 KREEMER, C.; GOES, S.; GOVERS, R.; HOLT, W.
Active deformation of eastern Indonesia and the Philippines inferred from seismicity and geodetic data

SE018 **MALSERVISI, R.**; FURLONG, K.P.
Lithospheric response to transpressional plate boundary kinematics

SE019 **MAROTTA, A.M.**; FERNANDEZ, M.; SABADINI, R.
The onset of extension during lithospheric shortening: 2-D dynamical modelling for lithospheric unrooting

SE020 **GERBAULT, M.**; POLIAKOV, A.; DAIGNIERES, M.; BUROV, G.
Initiation of intra-plate subduction due to end-plate compression: numerical approach

SE021 BIANCHI, S.; DEVENEZIA, D.; GIUNCHI, C.; NEGREDO, A.M.
Thermal-kinematic model of a subducting slab

SE022 PARK, J.-O.; AMANO, H.; TSURU, T.; KIDO, Y.; KANEDA, Y.; KONO, Y.
Geological structure of the western Nankai convergent plate margin as revealed by multi-channel seismic reflection data

SE023 GARDU, G.
Evolving tectonic structures in Romania

SE024 KUCEROVA, L.
Rock masses transposition and generis of variscan plutonites in the Bohemian massif

SE025 **SADYKOV, D.**; MUKASHEV, K.; BUKREEVA, E.
Geophysical model of contracting Earth and natural processes

SE026 KOSTYANEV, S.G.
Mathematical modelling of the movement of a layer melting in the Earth

SE027 MOROZOV, V.N.; TATARINOV, V.N.
Prediction and models of modern crustal movements in the areas of objects of nuclear-fuel cycle

SE028 BARKIN, YU.V.
Dynamic regularities of the plate motion

SE029 BEZERRA, F.H.R.
Neotectonic deformation in NE Brazil *

SE6 Post-glacial rebound and its influence on sea level, crustal deformation and gravity: new observations, modelling results and initiatives

Convener: Mitrovica, J.X.
Co-Convener(s): Vermeersen, L.L.
Tuesday, 21 April 1998
Lecture Room: R3
Chairpersons: Mitrovica, J.X.; Vermeersen, L.L.
Editors: Mitrovica, J.X.; Vermeersen, L.L.

11:00 **MITROVICA, J.X.**; FORTE, A.M.
SE6-001 Joint inversions for mantle viscosity

11:15 **VERMEERSEN, L.L.A.**; SABADINI, R.; BORGO,
SE6-002 S.
Joint mantle viscosity inversions of polar wander and geoid changes induced by Pleistocene and contemporary ice mass variations

11:30 FJELDSKAAR, W.
SE6-004 The post-glacial shoreline displacement on Svalbard indicates a high viscosity mantle

11:45 **THOMA, M.**; WOLF, D.
SE6-005 Modelling of land emergence and secular gravity change in Fennoscandia

12:00 **KAUFMANN, G.**; WU, P.
SE6-006 Upper mantle lateral viscosity variations and postglacial rebound: application to the Barents Sea

12:15 **DI DONATO, G.**; VERMEERSEN, L.L.A.;
SE6-007 SABADINI, R.
Multi-layer analytical Earth models of sea level changes induced by present-day glacial instability and post-glacial rebound

12:30 **LAMBECK, K.**; SMITHER, C.; EKMAN, M.
SE6-003 Tests of glacial rebound models for Fennoscandinavia based on instrumented sea- and lake-level records

12:45 BREAK

Chairpersons: Vermeersen, L.L.; Mitrovica, J.X.
Editors: Mitrovica, J.X.; Vermeersen, L.L.

14:00 MILNE, G.A.
SE6-008 Recent advances in modelling postglacial sea-level variations (Solicited Paper)

14:30 **JAMES, T.S.**; HE, J.; WANG, K.
SE6-009 Postglacial rebound in the northern Cascadia subduction zone

14:45 **IVINS, E.R.**; RAYMOND, C.A.; JAMES, T.S.
SE6-010 Patagonian little ice age rebound

15:00 **ARGUS, D.F.**; PELTIER, W.R.; WATKINS, M.M.;
SE6-011 HEFLIN, M.B.
Glacial isostatic adjustment from space geodesy

15:15 **DAVIS, J.L.**; JOHANSSON, J.M.; MITROVICA,
SE6-012 J.X.; MILNE, G.; SCHERNECK, H.-G.
Determinations of mantle viscosity and ice history model parameters from project BIFROST GPS data

15:30 **WAHR, J.**; VAN DAM, T.; LARSON, K.;
SE6-013 ROBERTSON, D.; FRANCIS, O.
Absolute gravity and GPS measurements in Greenland

15:45 WINGHAM, D.
SE6-014 Antarctic elevation change 1992-1996: implications for mass balance (Solicited Paper)

16:15 HUGHES, T.J.; BELKNAP, D.F.; KELLEY, J.T.;
SE6-015 FASTOOK, J.L.
Modelling isostatic responses of short time and distance scales: the record in the Gulf of Maine

16:30 MÖRNER, N.-A.
SE6-016 Glacial isostasy, eustasy, geoid deformation, rotation, circulation and paleoseismicity

16:45 END OF SESSION

Attend the Business Meeting of your Section

on Wednesday, 22 April, 12.00-14.00, Lecture Room R10

SE6 Post-glacial rebound and its influence on sea level, crustal deformation and gravity: new observations, modelling results and initiatives - Poster Session

Convener: Mitrovica, J.X.
Co-Convener(s): Vermeersen, L.L.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairpersons: Mitrovica, J.X.; Vermeersen, L.L.
Editors: Mitrovica, J.X.; Vermeersen, L.L.

SE314 SE6-017 **BORETTI, E.**; GIUNCHI, C.; SABADINI, R.
3D viscosity variations and post-glacial rebound

SE315 SE6-018 **HANYK, L.**; MATYSKA, C.; YUEN, D.A.
Instability of compressible viscoelastic models

SE316 SE6-019 **VERMEERSEN, L.L.A.**; MITROVICA, J.X.
Gravitational stability of viscoelastic relaxation models

SE317 SE6-020 MÄKINEN, J.
Absolute-gravity measurements in Finland to study the Fennoscandian postglacial rebound

SE318 SE6-021 **KAUFMANN, G.**; LAMBECK, K.
Implications for Pleistocene glaciation of the Tibetan Plateau on present geodetic observables

SE319 SE6-022 **LE MEUR, E.**; HUYBRECHTS, P.
A coupled ice sheet-viscoelastic Earth model as a tool to assess the present-day imbalance of the Greenland ice sheet

SE320 SE6-023 GRUSHINSKY, A.N.; KORYAKIN, E.D.; STROEV, P.A.
The isostatic model and deep structure of Antarctica

SE7 Variations in the Earth's rotation: implications for the dynamics and structure of the mantle and for global change processes

Convener: Sabadini, R.
Co-Convener(s): O'Connell, R.J.
Monday, 20 April 1998
Lecture Room: R2
Chairperson: N.N.

11:00 **MITROVICA, J.X.**; MILNE, G.A.
Glacial isostatic adjustment and the Earth's rotation: new insights into an old problem

11:15 VERMEERSEN, L.L.A.
Polar wander, sea-level variations and ice age cycles (Solicited Paper)

11:45 **MOUND, J.E.**; MITROVICA, J.X.
True polar wander as a mechanism for long term sea level variations

12:00 **RICARD, Y.**; RICHARDS, M.; LITHGOW, C.; SABADINI, R.; SPADA, G.
Long term stability of Earth's rotation axis

12:15 **SABADINI, R.**; VERMEERSEN, L.L.A.; MALSERVISI, R.
The long-term rotation dynamics of the Earth

12:30 LUNCH

Chairperson: N.N.

14:00 **GORDON, R.G.**; PETRONOTIS, K.; ACTON, G.; JOHNSON, B.; VASAS, S.
Apparent polar wander of the hotspots: the view from the Pacific

14:15 DEVOTI, R.; FERMI, M.; LANOTTE, R.; LUCERI, V.; PACIONE, R.; RUTIGLIANO, P.; SCIARETTA, C.; VESPE, F.
Earth orientation parameters measured by space geodesy techniques

14:30 **O'CONNELL, R.J.**; STEINBERGER, B.
True polar wander and hot-spot motion during the cenozoic from mantle flow models

14:45 YODER, C.F.
Contributions to present-day polar motion, J2 and UT1 changes (Solicited Paper)

15:15 MÖRNER, N.-A.
Earth roation and global changes

15:30 TYAPKIN, K.F.
Magnetic field of the Earth as a result of variation of its rotation regime

15:45 KIRIAN, G.V.
Movement of Earth's instant pole of rotation

16:00 EVANS, D.A.
Multiple episodes of rapid true polar wander in Vendian-Cambrian time

16:15 Concluding Remarks
16:30 END OF SESSION
17:00 Opening
19:30 Reception

SE7 Variations in the Earth's rotation: implications for the dynamics and structure of the mantle and for global change processes - Poster Session

Convener: Sabadini, R.
Co-Convener(s): O'Connell, R.J.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE

SE166 **ALFONSI, L.**; SPADA, G.; BOSCHI, E.
Effects of subductions and trends in seismically-induced rotational variations

SE167 ZAKHAROV, G.; **TYRNOV, F.**
The relationship between solar wind energy and 27-day non-tidal variations in the length of day

SE8 Sedimentary basin modelling and integration of geophysical and sedimentary geology data - Poster Session

Convener: Cloetingh, S.
Co-Convener(s): Horvath, F.; Sassi, W.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE
Co-sponsored by: International Lithosphere Program
Chairpersons: Gabrielsen, R.H., Delvaux, D.

SE321 **BEEKMAN, F.**; BUROV, E.; CLOETINGH, S.
Tectonic modelling of the late cenozoic thick-skinned crustal deformation in central Asia

SE322 **VAN DER MEER, R.**; VAN WEES, J.D.; GÖLKE, M.; BEEKMAN, F.
Present-day lithospheric strength of the Norwegian continental Voring margin and predictions of late Tertiary deformation

SE323 **MIRANDA, J.V.**; EBINGER, C.J.; FAIRHEAD, J.D.
Regional gravity and aeromagnetic investigation of the Takutu basin, Brazil and Guyana

SE324 **DIRKZWAGER, J.B.**; LEGOSTAEVA, O.V.; YEGOROVA, T.P.; STEPHENSON, R.A.; VAN WEES, J.D.
Gravity anomalies used in 3D-basin analysis of the Dutch on- and offshore

SE325 **YEGOROVA, T.P.**; KOZLENKO, V.G.; STAROSTENKO, V.I.; LEGOSTAEVA, O.V.; STEPHENSON, R.A.
Structure of the lithosphere beneath the Dnieper-Donets Basin, Ukraine, according to gravity data

SE326 KAPE, S.; OSBORNE, R.
Identification of sediment dispersal pathways using 3D palinspastic reconstruction

SE327 **KLESPER, C.**; SCHECK, M.; BAYER, U.
Modelling of salt dynamics in the northeast German basin

SE328 **MERRIAM, D.F.**; FÖRSTER, A.
Comparison and integration of geophysical and sedimentological data for basin modelling

SE329 BARYKIN, S.K.; MUSHIN, I.A.
Structural-formational modelling of sedimentary basins

SE330 **HEIKKINEN, P.J.**; KORJA, A.; AARO, S.
Bothnian Sea - a mesoproterozoic extensional basin

SE331 **NADOR, A.**; JUHASZ, E.
Neogene basement faulting and subsequent karstic rejuvenation: the oil-bearing Zala basin, SW Hungary

SE332 **BERASTEGUI, X.**; BANKS, C.J.; PUIG, C.; TABERNER, C.; WALTHAM, D.; FERNANDEZ, M.
Laterial diapiric emplacement of triassic evaporites at the southern margin of ghe Guadalquivir Basin, Spain

SE333 **ERSHOV, A.V.**; BRUNET, M.-F.; KOROTAEV, M.V.
Northern fore-Caucasus molasse basin: burial history and flexural modelling

SE334 MONGELLI, F.; PALUMBO, F.
2D and 3D modelling of the thermal evolution of sedimentary basins and their applications

SE335 KHODYREVA, E.JA.
The quantitative estimation of geological characteristics of sedimentary basics by geothermal parameters

SE336 SAFANDA, J.; SUCHY, V.
Thermal effect of the central Bohemian granitic pluton (Czech Republic) on the adjacent sediments: results of computer simulation

SE337 IOGANSON, L.I.; KUNIN, N.YA.; MILETENKO, N.V.
Application of the geophysical data for sedimentary basin investigation

SE338 RODNIKOV, A.G.
The deep structure of the sedimentary basin of the Okhotsk Sea and its comparison with other sedimentary basins of the world

SE338A SVALOVA, V.B.
Sedimentary basins formation and evolution. Case study of the pre-Caspian depression and sedimentary basins of Brazil.

SE338B LAZAUSKIENE, J.; **SLIAUPA, S.**; POPRAWA, P.; STEPHENSON, R.A.; VAN WEES, J.-D.
Flexural model of the Silurian Baltic Basin on the western margin of the east European craton

SE338C ISMAIL-ZADEH, A.
The Devonian to Permian subsidence mechanisms of the east European basins

SE8 Sedimentary basin modelling and integration of geophysical and sedimentary geology data

Convener: Cloetingh, S.
Co-Convener(s): Horvath, F.; Sassi, W.
Friday, 24 April 1998
Lecture Room: HERMES
Co-sponsored by: International Lithosphere Program
Chairperson: Cloetingh, S.

08:30 CLOETINGH, S.
Integrated basin studies: introduction to the session

08:45 ZIEGLER, P.A.
Mechanical controls on collision-related compressional intraplate deformation (Solicited Paper)

09:15 Presentation of ILP E.A. Flinn Award to J.-D. van Wees

09:30 ROURE, F.
Multi-scale strain partitioning and wedging during intraplate deformations (Solicited Paper)

10:00 **PYSKLYWEC, R.N.**; MITROVICA, J.X.
A mantle flow mechanism for the large-scale subsidence of continental interiors

10:15 **TER VOORDE, M.**; VAN BALEN, R.T.; BERTOTTI, G.; CLOETINGH, S.A.P.L.
The influence of a stratified rheology on the flexural response of the lithospehre ot (un)loading by extensional faulting

10:30 BREAK

Chairperson: Sassi, W.

11:00 **VAN WEES, J.-D.**; BEEKMAN, F.; DIRKZWAGER, J.; CLOETINGH, S.
Controls of preceding tectonic history on neotectonics and earthquakes in the Roeer Valley Graven (The Netherlands): constraints from rheological and finite element modelling

11:15 **FISCHER, K.D.**; JENTZSCH, G.; SÜSS, P.; SCHÄFER, A.
Geodynamic finite-element-modelling of foreland basins

11:30 **GARCIA-CASTELLANOS, D.**; FERNANDEZ, M.; TORNE, M.
Numerical modelling of the evolution of the Guadalquivir Foreland Basin (south Spain)

11:45 **VIDOTTI, R.M.**; EBINGER, C.J.; FAIRHEAD, J.D.
T_E estimates beneath paleozoic-mesozoic Parana and Parnaiba basins, Brazil
12:00 **BUROV, E.B.**; POLIAKOV, A.; CLOETINGH, S.
Erosional forcing on the basin envolution
12:15 VAN BALEN, R.T.
Erosion/sedimentation modelling of the Maas catchment in relation to climate and tectonics
12:30 **NEUBAUER, F.**; HANDLER, R.; MADER, D.; SCHNEIDER, D.
Evolution of Alpine-Carpathian sedimentary basins seen through detrital mica: new $^{40}Ar/^{39}Ar$ mica ages
12:45 LUNCH

Chairperson: Ben-Avraham, Z.

14:00 **KLESPER, C.**; SCHECK, M.; BAYER, U.
Problems of salt dynamics for 3D-backstripping
14:15 **BADA, G.**; CLOETINGH, S.; FODOR, L.; HORVATH, F.
Cenozoic structural evolution of the Pannonian basin: paleostress data and finite element stress models
14:30 **GÖLKE, M.**; VAN WEES, J.D.; VAN DER MEER, R.; KARPUZ, R.; WILHELMS, A.; BEEKMAN, F.; CLOETINGH, S.
Present-day strain at the mid-Norwegian margin
14:45 SKAR, T.; VAN BALEN, R.; ARNESEN, L.
Tectonic stress and its influence on fluid flow: a case study from the mid-Norwegian margin
15:00 **BEEKMAN, F.**; VAN WEES, J.-D.
Faulting, fracturing and in-situ stress prediction in hydrocarbon reservoirs: a finite element approach
15:15 GRIGO, D.; DATURI, C.; MOSCONI, A.; PALMIERI, G.
Egypt - Gulf of Suez: tectonic evolution and petroleum system definition with a 3D basin modelling approach
15:30 BREAK

Chairperson: Horvath, F.

15:45 AUBOURG, C.
The early Layer Parallel Shortening (LPS) as revealed by magnetic fabric
16:00 **SAMUELSSON, J.**; MIDDLETON, M.F.
Thermal modelling of maturation in rift-related basins
16:15 **SACCHI, M.**; HORVATH, F.
The importance of stratigraphic control in understanding the late neogene tectonic evolution of SW Pannonian basin
16:30 AIELLO, G.; DE ALTERIIS, G.; **MARSELLA, E.**; SACCHI, M.
New seismic data along the latium-campania offshore (eastern Tyrrhenian margin)
16:45 **MILIA, A.**; TORRENTE, M.M.
Multi-stage transtensional events and sedimentary responses in the eastern Tyrrhenian margin (Italy)
17:00 **KAYA, O.**; SARY, C.; PALK, M.; GÖKTAP
Büyük Menderes multipartite graben
17:15 GINZBURG, A.; **BEN-AVRAHAM, Z.**
The deep structure of the Dead Sea
17:30 HOJKA, A.M.; ZELT, C.; FLUEH, E.R.
3D seismic refraction tomography of ocean bottom hydrophone data recorded offshore Valparaiso, Chile
17:45 DELVAUX, D.
Tectonic and climate influences on late cenozoic mountain building and basin formation in east-central Asia
18:00 REEMST, P.; PASCAL, C.; **GABRIELSEN, R.**; FOSSEN, H.; LEPVRIER, C.
Post-Caledonian evolution of tectonic stresses in the northern North Sea area *
18:15 END OF SESSION

SE10 Fault interaction and earthquake mechanics

Convener: Das, S.
Co-Convener(s): Cocco, M.
Monday, 20 April 1998
Lecture Room: R3
Chairperson: Das, S.

08:30 MADARIAGA, R.
The origin of complexity in seismic sources (Solicited Paper)
09:00 **COTTON, F.**; HERNANDEZ, B.; CAMPILLO, M.
Looking for supersonic rupture velocities
09:15 **COCCO, M.**; BELARDINELLI, M.E.; COUTANT, O.; COTTON, F.
Dynamic versus static stress changes: inferences on the earthquake nucleation process
09:30 **DARROZES, J.**; GAILLOT, P.; COURJAULT-RADE, P.
Method for multi-scale structural and temporal analysis of epicentral distribution of an earthquake sequence using anisotropic wavelets
09:45 DRAGONI, M.; **PIOMBO, A.**
A model of fault indentation
10:00 **BOUR, O.**; DAVY, P.
Clustering and size distributions of fault patterns: theory and measurements
10:15 PELLETIER, J.D.
Slip distributions and source-time functions in a heterogeneous slider-block model
10:30 BREAK

Chairperson: Das, S.

11:00 OHNAKA, M.
A role of the constitutive law in scaling scale-dependent physical quantities inherent in shear repture (Solicited Paper)
11:30 **BOUISSOU, S.**; PETIT, J.-P.; BARQUINS, M.
Contact loss during stick-slip: from experimental evidence to insights for seismic behaviour
11:45 IVINS, E.R.
Postseismic transience & the heterogeneous rheology of the deep crust
12:00 **PASCAL, C.**; ANGELIER, J.; LEPVRIER, C.
Numerical modelling of fault interaction using the 3D distinct element method
12:15 MILLER, S.A.
Temporal variations in scaling relationships of a fluid-controlled fault in a self-organized critical state
12:30 LUNCH

Chairperson: Cocco, M.

14:00 **SARAO, A.**; BURLO, Z.; SUHADOLC, P.
Strong motion modelling for the 1976 Friuli earthquake (NE Italy)
14:15 SCOTTI, O.
Mechanics of the Vuache fault (French Alps) based on historical and instrumental data
14:30 **ANGELIER, J.**; BERGERAT, F.; ROGNVALDSSON, S.
Seismogenic stress field in the south Iceland seismic zone
14:45 **BERGERAT, F.**; ANGELIER, J.
Neotectonic evidence from field studies of recent faulting in the South Iceland Seismic Zone (SISZ)
15:00 **GARDI, A.**; COCCO, M.; NEGREDO, A.; SABADINI, R.; SINGH, S.K.
Stress changes in the subducted plate caused by large, shallow, thrust earthquakes: an application to the Benioff zone of Mexico
15:15 SHAMIR, G.
Spatial and temporal seismicity patterns associated with interacting fault segments - the case of the southern Dead Sea transform
15:30 SHOMALI, Z.-H.
Empirical Green's functions calculated from inversion of earthquake radiation patterns
15:45 **MAJEWSKI, E.**; TEISSEYRE, R.
Earthquake thermodynamics and earthquake shear band model
16:00 Concluding Remarks
16:15 END OF SESSION
17:00 Opening
19:30 Reception

SE10 Fault interaction and earthquake mechanics - Poster Session

Convener: Das, S.
Co-Convener(s): Cocco, M.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairpersons: Das, S.; Cocco, M.

SE031 KUZNETSOV, V.V.
The self-organization of the cracks arising during loading the rock as the reason of earthquake
SE032 **PIERSANTI, A.**; NOSTRO, C.; COCCO, M.
Fault interaction caused by elastic (static) and viscoelastic (postseismic) stress changes
SE033 **LYSKOVA, E.**; ROSLOV, YU.; YANOVSKAYA, T.
Source radiation spectra in subduction and spreading zone

Attend the Poster Session

SE11 Lithospheric dynamic processes as seen from geomorphology

Convener: Brun, J.-P.
Co-Convener(s): Kirby, M.
Tuesday, 21 April 1998
Lecture Room: R2
Chairperson: N.N.

11:00 UFIMTSEV, G.F.
Relief of the Earth surface, geoid and foot of mantle: a comparison
11:15 NIVIERE, B.; MARQUIS, G.; MAURIN, J.-C.
Morphologic dating of slowly evolving scarp using a diffusive analogue
11:30 **BASILE, C.**; ALLEMAND, P.
Erosion as the main mechanism of uplift along transform faults
11:45 **BOURGEOIS, O.**; DAUTEUIL, O.
Rift pattern and ice flow in Iceland during the alst glaciation
12:00 **VAN DER BEEK, P.**; BRAUN, J.; SUMMERFIELD, M.; BROWN, R.
Morphotectonic evolution of rifted margins: not just flank uplift and escarpment retreat
12:15 PELLETIER, J.D.
Modelling the geomorphic response to tectonism
12:30 **D'AGOSTINO, N.**; CHAMOT-ROOKE, N.; FUNICIELLO, R.
Spectral analysis of topography in extensional settings: inferences on the quaternary extensional tectonics of the Appennines (central Italy)
12:45 WINTER, TH.; **LENOTRE, N.**
Geomorphology: a tool to estimate the activity of faults in France (example of external Jura) *
13:00 END OF SESSION

SE11 Lithospheric dynamic processes as seen from geomorphology - Poster Session

Convener: Brun, J.-P.
Co-Convener(s): Kirby, M.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE

SE034 BORDONI, P.; **VALENSISE, G.**
Variable wavelength tectonic processes in peninsular Italy revealed by a systematic reassessment of 125 ka marine terrace data
SE035 **PICCARDI, L.**; GAUDEMER, Y.; TAPPONNIER, P.; BOCCALETTI, M.
Holocne kinematics of the Fucino basin (central Appenines, Italy)
SE036 MAKARENKO, G.F.
Global geomorphology attests against mobilistic models
SE037 PERELADOV, M.; VILKOVA, O.
The experience of estimation of geomorphological situation on the shallows, based on the analysis of the land geology (Sakhalin instance)

SE12 From the Arctic to the Mediterranean: salt, shale and igneous diapirs in and around Europe

Convener: Mart, Y.
Co-Convener(s): Vendeville, B.C.
Thursday, 23 April 1998
Lecture Room: R3
Chairperson: Vendeville, B.C.

11:00 TALBOT, C.J.
Rates of salt extrusion in the Zagros (Solicited Paper)
11:30 VENDEVILLE, B.C.
Tectonics vs. buoyancy as the drive for active diapiric growth
11:45 HOOPER, R.J.; VENDEVILLE, B.C.; BERGFJORD, E.; EVANS, N.; COLLERAN, J.; GUNN, C.
Diapir rejuvenation by contraction
12:00 PENGE, J.; MUNNS, J.W.; TAYLOR, B.
Examples of extensional and compressional rift-raft tectonics from the Zechstein evaporitic basins of northwest Europe
12:15 **DAVISON, I.**; EVANS, N.; ALSOP, I.; SAFARICZ, M.
Central graben salt diapirs fields, N. Sea: geometry and structural evolution
12:30 **GUERIN, G.**; VENDEVILLE, B.; RAILLARD, S.
Triassic structural distribution of the Zechstein salt iin southern North Sea and consequences for further tectonic history
12:45 **SPENCER, P.**; VENDEVILLE, B.; NILSEN, K.; WHITAKER, M.; JAHRE, H.; ROBAK, H.
Dynamic sequence stratigraphic prediction and thin-skinned extension: examples from the Varg Trend, Norwegian North Sea
13:00 LUNCH

Chairperson: Mart, Y.

14:00 **SCHECK, M.**; BAYER, U.; KLESPER, C.
Structure and evolution of salt in the northeast German basin - conclusions from 3D modelling
14:15 APOTRIA, T.
Relationship of salt evacuation in grwoth fault displacement transfer, Gulf of Mexico
14:30 MASCLE, J.; SHIPBOARD SCIENTIFIC PARTY
Mud and evaporite deformations from the eastern Mediterranean Sea: evidences from the Prismed II cruise (RV Atalante)
14:45 MART, Y.
Diapirism and neotectonic activity in the southeastern Mediterranean
15:00 **KRYLOV, O.**; ERGUN, M.; CIFEI, G.
The recent structure and mud diapirs of the south-east of Crimea's continental margin
15:15 BEHRMANN, J.H.; KOPF, A.
Extrusion mechanics in active mud volcanoes on the Mediterranean ridge
15:30 KOPF, A.; BEHRMANN, J.H.
Quantitative approach to the extrusion dynamics of active mud volcanoes on the Mediterranean ridge
15:45 CLEMENS, J.D.; **PETFORD, N.**; MAWER, C.K.
Granites are not diapiric!
16:00 VIGNERESSE, J.L.
Arguments against diapiric emplacement of granitic plutons in the brittle upper crust
16:15 HUTTON, D.
Igneous diapirism (Solicited Paper)
16:45 **RINGENBACH, J.-C.**; GOUT, C.; UNTERNEHR, P.
Superimposed salt tectonics in the Dutch southern North Sea: from gravity gliding to gravity spreading (Poster)
16:50 **ROSSETTI, F.**; ACOCELLA, V.; FACCENNA, C.; FUNNICIELLO, R.; LAZZAROTTO, A.
Neogene strike-slip faulting and pluton emplacement in southern Tuscany (Italy) (Poster)
16:55 SVALOVA, V.B.
The effect of rising mantle diapirs on formation and evolution of topographic relief (Poster)
17:00 ISMAIL-ZADEH, A.; VOLOZH, YU.; NAIMARK, B.; TALBOT, C.
Quantitative modelling of the evolution of salt structures in the pre-Caspian basin, Russia (Poster)
17:05 END OF SESSION

SE12 From the Arctic to the Mediterranean: salt, shale and igneous diapirs in and around Europe - Poster Session

Convener: Mart, Y.
Co-Convener(s): Vendeville, B.C.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:30 - 19:00
Poster Area: RHODES - SE

SE339 **RINGENBACH, J.-C.**; GOUT, C.; UNTERNEHR, P.
Superimposed salt tectonics in the Dutch southern North Sea: from gravity gliding to gravity spreading
SE341 **ROSSETTI, F.**; ACOCELLA, V.; FACCENNA, C.; FUNNICIELLO, R.; LAZZAROTTO, A.
Neogene strike-slip faulting and pluton emplacement in southern Tuscany (Italy)
SE341A SVALOVA, V.B.
The effect of rising mantle diapirs on formation and evolution of topographic relief
SE341B ISMAIL-ZADEH, A.; VOLOZH, YU.; NAIMARK, B.; TALBOT, C.
Quantitative modelling of the evolution of salt structures in the pre-Caspian basin, Russia

SE13 Intraplate earthquakes, stresses and large scale tectonic structure - Poster Session

Convener: Gregersen, S.
Co-Convener(s): Panza, G.F.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairperson: Gregersen, S.

SE110 MÜLLER, B.; SPERNER, B.; WEHRLE, V.; FUCHS, K.
The new release of the World Stress Map

SE111 GREGERSEN, S.
Change of stress since the ice age in Scandinavia

SE112 **HICKS, E.C.**; BUNGUM, H.; LINDHOLM, C.D.; OLESEN, O.
New seismicty and focal mechanism stress data from Ranafjord, northern Norway

SE113 WENDT, J.; DIETRICH, R.
Geodetic investigations on recent crustal deformations in the seismoactive zone of Saxon Vogtland

SE114 **MUSACCHIO, G.**; MOONEY, W.D.
Imaging an intraplate zone of seismicity: the Blytheville Arch in the new Madrid seismic zone

SE115 **HERRAIZ, M.**; DE VICENTE, G.; LINDO, R.; GINCI, J.; SIMON, J.L.; GONZALEZ CASADO, J.M.; VADILLO, O.; RODRIGUEZ-PASCUA, M.; CICUENDEZ, J.I.; CASAS, A.; CABANAS, I.; RINCON, P.; CORTES, A.; RAMIREZ, M.; LUCINI, M.
Recent (upper miocene) and present stress states in Spain obtained in the Sigma project

SE116 IOGANSON, L.I.; REISNER, G.I.
Heterogeneity of the intraplate areas and seismicity

SE117 BETZL, N.; HEINRICH, R.; HEMMANN, R.; JENTZSCH, G.; KAISER, D.; **KRACKE, D.**; ZIEGERT, A.
A new small seismic network for eastern Thuringia *

SE117A BALA, A.; RADULIAN, M.; POPA, M.
Earthquake distribution and regional tectonic structure in Vrancea zone - Romania

SE117B ISMAIL-ZADEH, A.; KEILIS-BOROK, V.; SOLOVIEV, A.; PANZA, G.
Numerical modelling of slap dynamics beneath the Vrancea region, Romania

SE14 Modern rifts: plumes, kinematic conditions and lithospheric inhomogeneities

Convener: Deverchere, J.
Co-Convener(s): Achauer, U.; Hansen, U.
Wednesday, 22 April 1998
Lecture Room: R9
Co-sponsored by: Geosciences Azur UMR 6526, Univ. Pierre et Marie Curie, Villefranche-sur-Mer, France (GEOAZUR); Ecole et Observatoire des Sciences de la Terre, CNRS EP-533, Strasbourg, France (EOST Strasbourg), IGCP 400 "Geodynamics of Continental rifting" (UNESCO)
Chairperson: Keller, G.R.

09:00 ACHAUER, U.
Seismic tomography and continental rifts: a review

09:30 MECHIE, J.; KRISP WORKING GROUP
The structure and evolution of the Kenya rift (Solicited Paper)

10:00 **MGUIRE, P.K.H.**; THYBO, H.; BIRT, C.S.; KHAN, M.A.
Wide-angle reflection study of lower crustal magmatic processes in the Kenya Rift

10:20 **MULUGETA, G.**; GHEBREAB, W.; TALBOT, C.
Modelling lateral extension and rifting in a stratified lithosphere with applications to the Afro-Arabian rift system

10:40 **HUISMANS, R.**; PODLADCHIKOV, Y.; CLOETINGH, S.
Mantle lithosphere R-T instability, FEM modelling of convective upwelling of mantle lithosphere beneath rifts zones

11:00 **LARSEN, T.B.**; YUEN, D.A.
Stress field, viscosity and shear heating distribution in mantle upwellings: a comparison between Newtonian and non-Newtonian rheologies

11:20 **MALAMUD, B.D.**; TURCOTTE, D.L.
Global heat flow and the frequency-size distribution of plume strengths

11:40 LUNCH

12:00 Business Meetings

Chairperson: Ebinger, C.

14:00 KELLER, G.R.
An overview of the structure and evolution of the Rio Grande rift, southwestern North America (Solicited Paper)

14:30 **KOULAKOV, I.**; DEVERCHERE, J.; PETIT, C.
Structure of the crust and upper mantle beneath the Baikal Rift from teleseismic and local tomography

14:50 **FERRACCIOLI, F.**; BOZZO, E.; SPANO, M.; ARMADILLO, E.
New geophysical constraints on the west Antarctic-Rift-Transantarctic mountains tectonodynamical system

15:10 ZHOU, Z.; LIAO, Z.; JIANG, J.
The Okinawa Trough: continental rifting in a back arc setting

15:30 **STEINBERGER, B.**; MARQUART G.
Evidence for hotspot motion from the Easter track/Nazca plate

15:50 **PETIT, C.**; EBINGER, C.; BUROV, G.
Rifting and flexure of the continental lithosphere: comparison between the east-African and Baikal rifts (Poster)

15:55 POPOV, A.M.; KISELEV, A.I.
The Baikal rift as structural expression of pre-existing lithospheric inhomogeneities in central Asia (Poster)

16:00 **SOKOLOVA, YU.F.**; MIRONOVA, N.A.; KARAKIN, A.V.
Crustal structure of Baikal rift - inhomogeneities and evolution through geological time (Poster)

16:05 **LESNE, O.**; CALAIS, E.; DEVERCHERE, J.; CHERY, J.; HASSANI, R.
Active deformation mechanisms in the Baikal rift zone using two-dimensional numerical models (Poster)

16:10 **GUSEV, A.**; PETROVA, N.; SHABALIN, N.
Crustal melting of Volga-Ural oil bearing province by action of Volga-Kama's plume (Poster)

16:15 **EBINGER, C.**; SLEEP, N.
Cratonic roots, mantle plumes, and the east African rift system (Poster)

16:20 **KHAN, M.A.**; MECHIE, J.; JACOB, B.; KELLER, G.R.; MAGUIRE, P.K.H.; PRODEHL, C.; THYBO, H.; HAAK, V.
The KRISP investigations of lithospheric structure and dynamis of the Kenya rift (Poster)

16:25 DELVAUX, D., KUCHAI, O.; SANKOV, V.; DEHANDSHUTTER, B.; VAN DER MEER, R.; HENDRIKS, B.; PETIT, C.
Transition from Baikal Rift to Altai-Sayan transpressional settings in east-central Asia (Poster)

16:30 ALLEN, R.M.; **NOLET, G.**; MORGAN, W.J.; VOGFJORD, K.; BERGSSON, B.H.; ERLENDSSON, P.; FOULGER, G.R.; JACOBSDOTTIR, S.; JULIAN, B.R.; PRITCHARD, M.; RAGNARSSON, S.; STEFANSSON, R.
Iceland's hot narrow plume (Poster)

16:35 **GUSEV, A.**; PETROVA, N.
Hot spots on the Russian craton and exogenetic manifestation of the Volga-Kama's plume (Poster)

16:40 END OF SESSION

SE14 Modern rifts: plumes, kinematic conditions and lithospheric inhomogeneities - Poster Session

Convener: Deverchere, J.
Co-Convener(s): Achauer, U.; Hansen, U.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: RHODES - SE
Co-sponsored by: Geosciences Azur UMR 6526, Univ. Pierre et Marie Curie, Villefranche-sur-Mer, France (GEOAZUR); Ecole et Observatoire des Sciences de la Terre, CNRS EP-533, Strasbourg, France (EOST Strasbourg), IGCP 400 "Geodynamics of Continental rifting" (UNESCO)
Chairperson: Mechie, J.

SE039 **PETIT, C.**; EBINGER, C.; BUROV, G.
Rifting and flexure of the continental lithosphere: comparison between the east-African and Baikal rifts

SE040 POPOV, A.M.; KISELEV, A.I.
The Baikal rift as structural expression of pre-existing lithospheric inhomogeneities in central Asia

SE041 **SOKOLOVA, YU.F.**; MIRONOVA, N.A.; KARAKIN, A.V.
Crustal structure of Baikal rift - inhomogeneities and evolution through geological time

SE042 **LESNE, O.**; CALAIS, E.; DEVERCHERE, J.; CHERY, J.; HASSANI, R.
Active deformation mechanisms in the Baikal rift zone using two-dimensional numerical models

SE043 **GUSEV, A.**; PETROVA, N.; SHABALIN, N.
Crustal melting of Volga-Ural oil bearing province by action of Volga-Kama's plume

SE044 **EBINGER, C.**; SLEEP, N.
Cratonic roots, mantle plumes, and the east African rift system

SE045 **KHAN, M.A.**; MECHIE, J.; JACOB, B.; KELLER, G.R.; MAGUIRE, P.K.H.; PRODEHL, C.; THYBO, H.; HAAK, V.
The KRISP investigations of lithospheric structure and dynamis of the Kenya rift

SE046 DELVAUX, D., KUCHAI, O.; SANKOV, V.; DEHANDSHUTTER, B.; VAN DER MEER, R.; HENDRIKS, B.; PETIT, C.
Transition from Baikal Rift to Altai-Sayan transpressional settings in east-central Asia

SE047 ALLEN, R.M.; **NOLET, G.**; MORGAN, W.J.; VOGFJORD, K.; BERGSSON, B.H.; ERLENDSSON, P.; FOULGER, G.R.; JACOBSDOTTIR, S.; JULIAN, B.R.; PRITCHARD, M.; RAGNARSSON, S.; STEFANSSON, R.
Iceland's hot narrow plume

SE048 **GUSEV, A.**; PETROVA, N.
Hot spots on the Russian craton and exogenetic manifestation of the Volga-Kama's plume

SE15 Crustal structure revealed by scientific drilling

Convener: Lauterjung, J.
Tuesday, 21 April 1998
Lecture Room: R3
Chairperson: N.N.

08:45 **PEZARD, P.A.**; CELERIER, B.
Structure and tectonic stresses in oceanic basement holes drilled by DSDP and ODP

09:00 **KÜCK, J.**; LAUTERJUNG, J.; WOHLGEMUTH, L.
KTB Deep Crustal Lab - exploring the deep on the long-term

09:15 **KHRISTOFOROVA, N.N.**; KHRISTOFOROV, A.V.; MUSLIMOV, R.C.; PANARINA, G.I.
Temperature distribution and anomalies in the crystal basement

09:30 **PECHNIG, R.**; WOHLENBERG, J.; PEVZNER, L.; JUHLIN, CH.
Logging for structures and crustal composition in the scientific borehole Uralskaya SG-4

09:45 BOREVSKY, L.V.; **MILANOVSKY, S.**
New data about peculiarities of physical properties in the Kola superdeep hole

10:00 **SOUPIOS, P.**; AYARZA, P.; JUHLIN, C.; PAPAZACHOS, C.; TSOKAS, G.
Seismic tomography image of the area near the Urals superdeep borehole SG4 (Poster)

10:05 SMIRNOV, J.; KOUZNETSOVA, E.; GALDIN, N.
Geophysical investigations on the base of the Kola superdeep borehole (Poster)

10:10 **AYARZA, P.**; JUHLIN, C.; PEVZNER, L.; BLITNESOV, M.; HISMATULIN, T.; RYBALKA, A.
Structure of the upper crust in SG4 borehole area from vertical incidende and VSP data (Poster)

10:15 KOUZNETSOV, I.; SVALOVA, V.; SMIRNOV, J.; KOUZNETSOVA, E.
Crustal structure revealed by scientific drilling of the Kola superdeep borehole (Poster)

10:20 END OF SESSION

Geophysical Journal International

Journal of Geodynamics

Tectonics

EGS journals for the publication of your contribution

SE15 Crustal structure revealed by scientific drilling - Poster Session

Convener: Lauterjung, J.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE

SE049 SMIRNOV, J.; KOUZNETSOVA, E.; GALDIN, N.
Geophysical investigations on the base of the Kola superdeep borehole

SE050 **AYARZA, P.**; JUHLIN, C.; PEVZNER, L.; BLITNESOV, M.; HISMATULIN, T.; RYBALKA, A.
Structure of the upper crust in SG4 borehole area from vertical incidende and VSP data

SE050A KOUZNETSOV, I.; SVALOVA, V.; SMIRNOV, J.; KOUZNETSOVA, E.
Crustal structure revealed by scientific drilling of the Kola superdeep borehole

SE050B **SOUPIOS, P.**; AYARZA, P.; JUHLIN, C.; PAPAZACHOS, C.; TSOKAS, G.
Seismic tomography image of the area near the Urals superdeep borehole SG4

SE16 3-D crustal imaging of France

Convener: Ledru, P.
Co-Convener(s): Fuchs, K.; Galdeano, A.
Thursday, 23 April 1998
Lecture Room: R10
Chairperson: Gee, D.G.
Editor: Ledru, P.

08:30 PFIFFNER, O.A.

SE16-001 3D crustal structure of the Swiss Alps: lateral changes in space and time (Solicited Paper)

09:00 **FRECHET, J.**; BETHOUX, N.; CAMPILLO, M.;
SE16-002 CATTANEO, M.; PAUL, A.; THOUVENOT, F.; AUGLIERA, P.; GUIGUET, R.; JENATTON, L.; LANZA, V.; PEDERSEN, H.; SPALLAROSSA, D.; SUE, C.; GEOF TEAM
A dense temporary seismic network in the W. Alps

09:15 **PAUL, A.**; THOUVENOT, F.; FRECHET, J.;
SE16-003 CATTANEO, M.; SPALLAROSSA, D.; BETHOUX, N.
Local earthquake tomography of the south-western Alps (Géofrance 3D 1996 experiment)

09:30 **SUE, C.**; THOUVENOT, F.; FRECHET, J.;
SE16-004 TRICART, P.
Present-day stress regime within the inner western Alps

09:45 **BUROV, E.B.**; PODLADCHIKOV, Y.;
SE16-005 GRANDJEAN, G.; BURG, J.-P.; KISSLING, E.
Validation of multidisciplinary data using thermo-mechanical numerical modelling: application to the western Alps

10:00 **GRANET, M.**; ACHAUER, U.; JUDENHERC, S.
SE16-006 What do we know about the lithosphere beneath France from seismic tomography and seismic anisotropy (Solicited Paper)

10:30 BREAK

Chairperson: Pfiffner, O.A.
Editor: Ledru, P.

11:00 GRANDJEAN, G.; BITRI, A.; DEBEGLIA, N.;
SE16-007 GUILLOCHEAU, F.; MENNECHET, C.; BUROV, E.
The million Geofrance 3D project: a scientific platform for studying western European lithosphere

11:15 **GUENNOC, P.**; BRUN, J.P.; ARMOR GROUP
SE16-008 Cadomian tectonics in northern Britanny: results from geophysical imagery and 3D modelling at crustal scale

11:30 BOISSONNAT, J.-D.; CALCAGNO, PH.;
SE16-009 COURRIOUX, G.; GUILLEN, A.; **NULLANS, S.**; RENAUD, X.; REPUSSEAU, PH.; THIBAUT, M.; TRUFFERT, C.
3D modelling: from cross-section editor to geophysical computing

11:45 BOSCH, M.
SE16-010 Lithologic inversion from plural geophysical data

12:00 LUNCH

Chairperson: Fuchs, K.
Editor: Ledru, P.

14:00 REHAULT, J.P.; GUENNOC, P.; DEVERCHERE,
SE16-011 J.; MAUFFRET, A.; BETHOUX, N.; BESLIER, M.O.; CONTRUCCI, I.; ROLLET, N.; CHAMOT-ROOKE, N.; TRUFFERT, C.
Deep and shallow structure of the NW Mediterranean: new insights on the Ligurian Sea and margins (Solicited Paper)

14:30 TRUFFERT, C.; COURRIOUX, G.; CALCAGNO,
SE16-012 PH.; THIBAUT, M.; GUENNOC, P.
3D geometric and gravity modelling of the Cadomian orogeny (ARMOR project)

14:45 **CAUVIN, C.**; GALDEANO, A.; EGAL, E.;
SE16-013 TRUFFERT, C.; POZZI, J.P.
Contribution of sample measurements to magnetic modelling of the French Cadomian belt

15:00 **LE BEGAT, S.**; GRANDJEAN, G.; WYNS, R.
SE16-014 Shallow crustal imaging of Armorican belt from ARMOR seismic profile

15:15 SOBOLEV, S.V.
SE16-015 3-D mantle temperature and dynamics of the French Massif Central from integrated interpretation of seismic tomography, mantle xenoliths and surface heat flow (Solicited Paper)

15:45 ROIG, J.Y.; MILESI, J.P.; FAURE, M.;
SE16-016 TRUFFERT, C.; MALUSKI, H.; BOUCHOT, V.; GEOFRANCE 3D CARTOGRAPHY AND METALLOGENY TEAM
Geological, geophysical and readiochronological invstigations in the French Massif Central. Consequences on the megastructure interpretations

16:00 **LE CARLIER DE VESLUD, C.**; VIGNERESSE,
SE16-017 J.L.; SCHOEFFLER, B.; ROIG, J.Y.; ROYER, J.J.; GEOFRANCE 3D TEAM
3D modelling of the Argentat crustal zone (GéoFrance 3D Program)

16:15 **VIGNERESSE, J.L.**; CUNEY, M.; AMEGLIO, L.
SE16-018 Multiscale global 3D inversion on granitic plutons in the Massif Central France

16:30 END OF SESSION

SE16 3-D crustal imaging of France - Poster Session

Convener: Ledru, P.
Co-Convener(s): Fuchs, K.; Galdeano, A.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairperson: Ledru, P.
Editor: Ledru, P.

SE051 **BERTRAND, E.**; DESCHAMPS, A.
SE16-019 Lithospheric structure beneath the southern French Alps inferred by broad-band analysis

SE052 **COTTE, N.**; PEDERSEN, H.; CAMPILLO, M.
SE16-020 Analysis of surfaces waves in the French Alps by a dense broad-band station array

SE053 **JUDENHERC, S.**; GRANET, M.; ACHAUER,
SE16-021 U.; MOCQUET, A.; POUPINET, G.
3D imaging of the Hercynian suture in the French "Massif Armoricain"

SE054 GALDEANO, A.; ASFIRANE, F.; TRUFFERT,
SE16-022 C.; CAUVIN, C.
The Aeromagnetic map of Cotentin (NW France)

SE055 ASFIRANE, F.; BOUCHOT, V.;
SE16-023 VIALLEFOND, L.; FEYBESSE, J.L.; BOURGUIGNON, A.; TRUFFERT, C.
A new compilation of the aeromagnetic data of Massif Central, correlation to geological and geochemistry data (Geofrance 3D project)

SE056 TRUFFERT, C.; BOUCHOT, V.;
SE16-024 VIALLEFOND, L.; CALCAGNO, PH.; COURRIOUX, G.; THIBAUT, M.; ROIG, J.Y.; MILESI, J.P.
3D gravity modelling of the south Limousin: insights of the gravity-geochemistry anomaly relationships

SE057 MARTELET, G.; **DIAMENT, M.**;
SE16-025 CHARONNAT, X.; FAURE, M.
A detailed gravity survey in Cevennes (south-east Massif Central): constraints on the 3-D crustal structure

SE058 **AMEGLIO, L.**; TARDIF, H.; VIGNERESSE,
SE16-026 J.L.; LE CARLIER DE VESLUD, C.; GEOFRANCE 3D TEAM
3D modelling of the Blond and Veynazes granitic massifs

SE17 Dynamics of plate boundaries .1 Geodynamics of collision belts: stacking and exhumation processes - Poster Session

Convener: Kilias, A.
Co-Convener(s): Ring, U.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE

SE137 **ELLIS, S.**; PFIFFNER, A.; BEAUMONT, C.
Geodynamic models of crustal-scale episodic tectonic accretion in subduction zones

SE138 **SCHUSTER, K.**; SPINDLER, S.; ENDERLE, U.; OETTINGER, G.; SCHULZE, A.; PRODEHL, C.; DEKORP RESEARCH GROUP
The refraction seismic experiment GRANU95 - results and correlations with reflection profilings

SE139 TRANOS, M.D.; **KILIAS, A.A.**; MOUNTRAKIS, D.M.
Geometry and kinematics of the post-metamorphic thrust system in the Circum Rhodope Belt (CRB) at the western margin of the Hellenic Hinterland (Greece)

SE140 **WAWRZENITZ, N.**; KROHE, A.
Blisters of hot middle crust in the north Aegean extensional region

SE141 GESSNER, K.; LACKMANN, W.; **RING, U.**; PASSCHIER, C.W.
The early-alpine tectonometamorphic history of the Menderes Massif, SW Turkey: implications for the evolution of the eastern Mediterranean

SE142 PARPHENUK, O.I.
Thermal-mechanical models of evolution of layered lithosphere in collisional belts

SE143 CHAMINE, H.I.; FERNANDEZ, F.J.; FONSCA, P.; RIBEIRO, A.
Unusual HT quartz c-axis fabric developed in the quartz-mylonites of the Espinho formation (Ossa-Morena zone, NW Portugal)

SE144 **SOKOLOV, S.D.**; GRIGORIEV, V.N.
Tectonic juxtaposition of oceanic coplexes along the northeastern Asian convergent boundary in the late mesozoic

SE145 BONDARENKO, G.YE.; MOROZOV, O.L.; ALEKSUTIN, M.V.; CHAMOV, N.P.; KHUDOLEY, A.K.; LAYER, P.; LUTCHITSKAYA, M.V.; SILANTIEV, S.A.
The tectonotype of paleolateral structures series of jurassic-Neocomian Siberia convergent margin (the Taigonos peninsula, NE of Russia)

SE146 **GIUNCHI, C.**; RICARD, Y.; ALLEMAND, P.; GUILLOT, S.
Mountain building and the role of phase transitions

SE147 RING, U.
Did erosion mainly exhume the Aegean blueschists?

SE148 **PETRINI, K.**; PODLADCHIKOV, Y.
Non-lithostatic pressure during continental shortening

SE17 Dynamics of plate boundaries .1 Geodynamics of collision belts: stacking and exhumation processes

Convener: Kilias, A.
Co-Convener(s): Ring, U.
Friday, 24 April 1998
Lecture Room: R3
Chairpersons: Ring, U.; Kilias, A.

09:00 RILLER, U.
Proterozoic crustal kinematics and exhumation of deep-crustal rocks in the southern superior province

09:15 **NEGA, M.**; KRUHL, J.H.; KRENTZ, O.; LEONHARDT, D.
Nappe stacking and exhumation of high-pressure rocks during continent collision: a Variscan scenario from the western Erzgebirge
09:30 ECHTLER, H.P.; HETZEL, R.
Non-extensional paleozoic high-P rock exhumation in the southern Urals
09:45 SANDERS, C.A.E.
The life cycle of the east Carpathian orogenic wedge
10:00 **PARTZSCH, J.H.**; FREY, M.; SCHMID, S.M.
The evolution of the Adula nappe (Switzerland): new data and the consequences for the evolution of the Penninic nappe edifice
10:15 **BRUNET, C.**; MONIE, P.; JOLIVET, L.; CADET, J.-P.
Geodynamic evolution of the northern Tyrrhenian Basin from $^{39}Ar/^{40}Ar$ ages on micas along a transect from Corsica to Tuscany
10:30 BREAK

Chairpersons: Partzsch, J.H., Hetzel, R.

11:00 CELLO, G.; **MAZZOLI, S.**
Syn-collisional exhumation of HP-LT rocks in the Calabria-Lucania borderland area (southern Italy)
11:15 **FALALAKIS, G.**; KILIAS, A.; MOUNTRAKIS, D.
Cretaceous syn-metamorphic deformation of the Sebromacedonian metamorphic province (N. Greece)
11:30 **ELLIS, S.**; PFIFFNER, A.; BEAUMONT, C.
Geodynamic models of crustal-scale episodic tectonic accretion in subduction zones
11:35 LIPS, A.L.W.; WHITE, S.H.; WIJBRANS, J.R.
High pressure metamorphism in the Aegean region: when did it happen and what happened next?
11:50 **THOMSON, S.N.**; STÖCKHERT, B.; BRIX, M.R.
Miocene high-pressure metamorphic rocks of Crete, Greece: rapid exhumation by buoyant escape
12:05 **JOHNSON, C.**; RING, U.; HETZEL, R.
Neogene denudation of the Menderes massif, Turkey
12:20 AVDIS, V.
The "stack of nappes" in western Crete
12.35 ZORIN, YU.A.
Geodynamics of the western part of Mongolia-Okhotsk collision belt: stacking and exhumation
12:50 END OF SUB-SESSION

SE17 Dynamics of plate boundaries .2 Active deformation along plate boundaries: measurements and models

Convener: Calais, E.
Co-Convener(s): Wdowinski, S.
Monday, 20 April 1998
Lecture Room: GALLIENI 5
Chairperson: Walpersdorf, A.

09:00 **REILINGER, R.**; MCCLUSKY, S.; KING, R.; TOKSÖZ, N.; BARKA, A.; DEMIR, C.; VEIS, G.; OUZOUNIS, A.; PRILEPIN, M.; KOTZEV, V.; GEORGIEV, I.; KAHLE, H.; PETER, Y.; SEEGER, H.; TEALAB, A.
Velocity field for the eastern Mediterranean
09:15 **COHEN, S.C.**; FREYMUELLER, J.T.
Postseismic and interseismic deformation at the north America-Pacific plate boundary, southcentral Alaska, USA
09:30 KLOTZ, J.; REIGBER, CH.; ANGERMANN, D.; MICHEL, G.; **PORTH, R.**
Subduction-related deformation and long-term compression in the central and southern Andes derived from GPS
09:45 **CATTIN, R.**; LYON-CAEN, H.; ARMIJO, R.; DE CHABALIER, J.-B.; RUEGG, J.-C.
Modelling of the seismic cycle in subduction zones, application to northern Chile
10:00 **VILLEMIN, T.**; JOUANNE, F.; GPS-TFZ TEAM
1995-1997 surface deformation along the Husavik-Flatey transform fault and around its junction with the northern volcanic zone in Iceland
10:15 JOUANNE, F.; MUGNIER, J.L.; GAMOND, J.F.; LE FORT, P.; VIGNY, C.; FRENCH-NEPALESE IDYLHIM TEAM
Preliminary results of GPS measurements across western Nepal
10:30 BREAK

Chairperson: Reilinger, R.E.

11:00 **WALPERSDORF, A.**; AMBROSIUS, B.A.C.; KAHAR, J.
Interpretation of GPS observations in the triple junction area in Indonesia
11:15 **WALPERSDORF, A.**; STEVENS, C.; AMBROSIUS, B.A.C.; KAHAR, J.
Deformation in the Palu-Koro fault region (Sulawesi) observed by GPS
11:30 DIXON, T.; DEMETS, C.; JANSMA, P.; MANN, P.; **CALAIS, E.**
Relative motion between the Caribbean and North American Plates and related plate boundary zone deformation based on a decade of GPS observations
11:45 BASTOS, L.; OSORIO, J.; BAPTISTA, P.; HEIN, G.; **FERNANDES, R.**
Recent crustal dynamics in the Azores Archipelago derived from repeated GPS observations
12:00 KAWAR, R.; BLEWITT, G.; DAVIES, P.; SMITH, A.
Studying plate deformation using GIS and GPS technologies
12:15 **FRANKE, D.**; HINZ, K.
The structure of the crust and the upper mantle beneath the Laplev Sea in north-eastern Siberia
12:30 MATOVA, M.
Block mosaic and seismic manifestations in Bulgaria
12:45 **BETHOUX, N.**; CALAIS, E.; OUILLON, G.; NICOLAS, M.
Evaluation of present seismic deformation in the western Alps
13:00 LUNCH

Chairperson: Chemenda, A.

14:00 WDOWINSKI, S.; BEN-AVRAHAM, Z.
Recent seismic activity at the edge of rift propagation in the Gulf of Elat (Aqaba)
14:15 **CHANG, C.-P.**; HUANG, C.-Y.
Evolution of plate boundary in the Taiwan arc-continent collision terrane

14:30 KUKOWSKI, N.; LALLEMAND, S.; MALAVIELLE, J.
Interaction of two active decollements and antiformal stacking in sandbox accretionary wedges

14:45 **HEIDBACH, O.**; DREWES, H.; SOFFEL, H.
A model of Mediterranean lithospheric deformation with finite elements

15:00 **SOLHEIM, L.P.**; SILVER, P.G.
A fluid intentor model for the deformation of continental margins: a model for South America

15:15 **BUROV, E.B.**; JAUPART, C.; POLIAKOV, A.
Surface processes, subsurface heterogeneities and the lithospheric strengh in the compressional areas

15:30 **KUBO, A.**; NOGI, Y.
Present evolution of the Pacific-Australia-Antarctica triple junction based on slip vector deviations

15:45 **ROYER, J.-Y.**; DYMENT, J.
Integral deformation of the central Indian basin from Eocene plate reconstructions

16:00 **COUTAND, I.**; ROPERCH, P.; CHAUVIN, A.; COBBOLD, P.R.; GAUTIER, P.
Cretaceous and tertiary clockwise rotations in the Puna plateau (Argentina): tectonic implications for central Andes

16:15 **ANGELIER, J.**; FONT, Y.; HU, J.-C.; LALLEMAND, S.
Earthquake distribution and mechanisms, lithospheric structure and tectonic regimes: Taiwan

16:30 END OF SUB-SESSION

17:00 Opening

19:30 Reception

SE17 Dynamics of plate boundaries .2 Active deformation along plate boundaries: measurements and models - Poster Session

Convener: Calais, E.
Co-Convener(s): Wdowinski, S.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairperson: Calais, E.

SE149 **TANG, J.-C.**; CHEMENDA, A.; LALLEMAND, S.; HASSANI, R.; CHERY, J.; YANG, R.K.
Gravity, seismicity and tectonic signature of arc-continent collision: results from physical and numerical modelling

SE150 **PAVLIS, E.C.**; MERTIKAS, S.; KARALIOTIS, A.; FRANTZIS, X.; MBARTZOS, E.
Aegean-African boundary tectonics from CRETE: Crete REgional Tectonic Experiment

Geophysical Journal International

Journal of Geodynamics

and

Tectonics

EGS journals for the publication of your contribution

SE17 Dynamics of plate boundaries .3 Seismological studies in convergent plate margins

Convener: Kissling, E.
Co-Convener(s): Polonia, A.
Tuesday, 21 April 1998
Lecture Room: R2
Chairperson: N.N.

08:45 SPALLAROSSA, D.; PAROLAI, S.; **CATTANEO, M.**; EVA, C.
Nonlinear inversion of teleseismic P wave travel time residuals in north western Italy

09:00 CHRISTOVA, C.
Stress field distribution in the Tyrhenian region as deduced by inversion of earthquake focal mechanisms

09:15 SOBOLEV, S.V.; ONCKEN, O.; ANCORP WORKING GROUP
ANCORP'96: an image of fluid escape from subduction zone in Andes?

09:30 GÜENDEL, F.; QUINTERO, R.
Seismotectonics of Central America: a study of earthquake focal mechanisms

09:45 **MASSON, F.**; DORBATH, C.; CARLIE, G.; MARTINEZ, C.
Structure of the crust in Central Andes inferred from Poisson's ratio

10:00 LUESCHEN, E.; ANCORP WORKING GROUP
ANCORP'96 - subduction zone in the central Andes imaged by seismic reflection survey

10:15 **GIAMPICCOLO, E.**; MUSUMECI, C.; MALONE, S.; GRESTA, S.; PRIVITERA, E.
Seismicity and stress tensor inversion in the central Washington Cascade Moutains (USA)

10:30 END OF SUB-SESSION

SE17 Dynamics of plate boundaries .3 Seismological studies in convergent plate margins - Poster Session

Convener: Kissling, E.
Co-Convener(s): Polonia, A.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE

SE151 QUINTERO, R.; GÜENDEL, F.
1D velocity model estimation in Costa Rica, Central America

SE152 KODAIRA, S.; TAKAHASHI, N.; KINOSHITA, H.; MOCHIZUKI, K.; SHINOHARA, M.
The Nankai trough seismogenic zone experiment: results of wide-angle OBS data

SE153 **SLANCOVA, A.**; SPICAK, A.
Delimitation of domains with uniform state of stress in the Wadati-Benioff zone beneath Java

SE154 **YEH, Y.T.**; YU, T.-T.
The characteristics of stress field in the Hualien area, eastern Taiwan revealed from earthquake rupture process

SE155 **RIETBROCK, A.**; HABERLAND, CH.; GIESE, P.
Velocity and Q tomography in the central Andes
*

SE19 The Trans European Suture Zone (TESZ) I

Convener: Thybo, H.
Co-Convener(s): Blundell, D.J.; Gee, D.G.; Guterch, A.; Pharaoh, T.C.
Monday, 20 April 1998
Lecture Room: HERMES
Co-sponsored by: EUROPROBE
Chairperson: Guterch, A.

08:30 BLUNDELL, D.J.
The legacy of the European geotraverse *
08:45 PHARAOH, T.
The Trans-European Suture Zone: a tectonic overview
09:00 POLONAISE WORKING GROUP; CZUBA, W.; GACZYNSKI, E.; GRAD, M.; **GUTERCH, A.**; JANIK, T.; MATERZOK, R.; SRODA, P.; MILDE--PIORKO, M.; LUND JENSEN, S.; THYBO, H.; HARDER, S.; KELLER, G.R.; MILLER, K.C.; LUOSTO, U.; YLINIEMI, J.; SCHUSTER, K.; SCHULZE, A.; MOTUZA, G.; NASEDKIN, V.; LUND, C.E.
POLONAISE'97 - international seismic experiment between Precambrian and Variscan Europe in Poland (Solicited Paper)
09:30 KELLER, G.R.
A summary of crustal structure along the Appalachian-Ouachita orogenic belt in North America: a comparison with the TESZ
09:45 **MUSACCHIO, G.**; MOONEY, W.D.
Composition, structure and evolution of Precambrian crust: evidence from Vp/Vs ratios
10:00 EUROBRIDGE SEISMIC WORKING GROUP
EUROBRIDGE-95: deep seismic profiling within the east European craton
10:15 PAULSSEN, H.
NARS: seismic studies of the European mantle using mobile broadband stations
10:30 BREAK

Chairperson: Blundell, D.J.

10:45 ABRAMOVITZ, T.; THYBO, H.; MONA LISA WORKING GROUP
The Baltica-Avalonia Suture in the SE North Sea (Solicited Paper)
11:15 WYBRANIEC, S.; **ZHOU, S.**; FORSBERG, R.; LEE, M.; DEMIANOV, G.; WONIK, T.; PERCHUC, E.; THYBO, H.; WILLIAMSON, J.P.
European potential field data and their tectonic implications
11:30 **GRABOWSKI, J.**; NAWROCKI, J.
Remagnetization of Devonian carbonates from the Holy Cross Mts (central Poland)
11:45 **ELMING, S.-A.**; MIKHAILOVA, N.P.; KRAVCHENKO, S.
Palaeomagnetism of proterozoic rocks from the Ukrainian shield and the consolidation of the east European craton
12:00 AYALA, C.; **KIMBELL, G.S.**; BROWN, D.; JUHLIN, C.; MENSHIKOV, Y.P.
Magnetic evidence for the geometry of the eastern margin of the East European Craton
12:15 **BROWN, D.**; NAVAREZ-MARRON, J.; JUHLIN, C.; PEREZ-ESTAUN, A.; PUCHKOV, V.; AYALA, C.; KIMBELL, G.; GOROZHANINA, Y.
Crustal-scale structure of the footwall to the suture zone, southern Urals
12:30 **GIESE, U.**; KATZUNG, G.; KRAMM, U.
The TransEuropean Suture Zone in NE-Germany - Implications and constraints from structural studies, provenance analysis and isotope dating (Solicited Paper)
13:00 LUNCH

Chairperson: Thybo, H.

14:00 FRANKE, W.; ONCKEN, O.
The Variscan belt in central Europe: geology and geophysics (Solicited Paper)
14:30 **LAMARCHE, J.**; BERGEAT, F.; MANSY, J.L.; SWIDROWSKA, J.; WIECZOREK, J.
Variscan to alpine paleo-stress evolution in the Teisseyre-Tornquist Zone (southern Poland)
14:45 VEJBAEK, O.V.
Deep structures in Danish sedimentary basins
15:00 **KRAWCZYK, C.M.**; STILLER, M.; POLOM, U.; BASIN'96 WORKING GROUP
The northern rim of the Central European Basin system - the offshore-onshore survey BASIN'96
15:15 BAYER, U.; BARRIO-ALVERS, L.; BEILECKE, TH.; GÖTZE, H.-J.; KRAWCYK, CH.; ONDRAK, R.; RABBEL, W.; SCHECK, M.
Crustal structure of the NE-German basin, inferred from geological and geophysical data and models
15:30 SHANNON, P.M.; JACOB, A.W.B.
Crustal structure onshore and offshore Ireland: development from palaeozoic to recent time (Solicited Paper)
16:00 **LANDES, M.**; JACOB, A.W.B.; MASSON, F.; PRODEHL, C.; THYBO, H.; VARNET RESEARCH GROUP
VARNET: a geophysical study of the Variscides and Caledonides in SW Ireland
16:15 TTZ WORKING GROUP; GACZYNSKI, E.; GRAD, M.; GUTERCH, A.; **JANIK, T.**; MATERZOK, R.; SRODA, P.; LUOSTO, U.; KOMMINAHO, K.; YLINIEMI, J.; HOEING, K.; MAKRIS, J.; LUND, C.E.
Crustal structure from deep seismic refraction and wide angle reflection experiment in the Teisseyre Tornquist zone in Poland (TTZ profile)
16:30 GUTERCH, A.; **GRAD, M.**; KELLER, G.R.; THYBO, H.
New international seismic project in the EUROPROBE TESZ/PANCARDI programme
16:45 GUTERCH, A.; **GRAD, M.**; ANTONOWICZ, L.
Crustal structure from seismic near vertical reflection data in the Polish basin

Stand-by paper
ASTAPENKO, V.V.; INGEROV, A.I.; ROKITYANSKY, I.I.
Comparison of geoelectric structure for Belorussian cristalline massive and Ukrainian shield

17:00 END OF PART I
17:00 Opening
19:30 Reception

SE

SE19 The Trans European Suture Zone (TESZ) II

Convener: Thybo, H.
Co-Convener(s): Blundell, D.J.; Gee, D.G.; Guterch, A.; Pharaoh, T.C.
Tuesday, 21 April 1998
Lecture Room: HERMES
Co-sponsored by: EUROPROBE
Chairperson: Pharaoh, T.C.

08:30 **MEISSNER, R.**; THYBO, H.; DEKORP RES-GROUP
Caledonian and older terrane accretion in the south-west Baltic Sea (Solicited Paper)

09:00 POLONAISE WORKING GROUP; THYBO, H.; JANIK, T.; GACZYNSKI, E.; GRAD, M.; GUTERCH, A.; KELLER, G.R.; MILLER, K.C.; **JENSEN, S.L.**
A detailed seismic velocity model of the palaeozoic platform in NW Poland

09:15 POLONAISE'97 WORKING GROUP; CZUBA, W.; GRAD, M.; GUTERCH, A.; **SRODA, P.**; THYBO, H.; KELLER, G.R.; LUOSTO, U.; YLINIEMI, J.; MOTUZA, G.; NASEDKIN, V.; LUND, C.E.
POLONAISE'97 - seismic structure of the Precambrian crust of eastern Europe along P3 profile

09:30 POLONAISE'97 WORKING GROUP; **WILDE-PIORKO, M.**
Teleseismic and local events recorded during POLONAISE'97 - data and preliminary interpretation

09:45 TOR WORKING GROUP; **GREGERSEN, S.**
Baltic shield edge teleseismic tomography, project TOR

10:00 **ARLITT, R.**; KISSLING, E.; ANSORGE, J.
Effects of 3D crustal structure on teleseismic wavefronts registered at the TOR array

10:15 **HOCK, S.**; KORN, M.; TOR WORKING GROUP
Teleseismic P-coda studies along the TOR-profile

10:30 GOSSLER, J.; **WYLEGALLA, K.**; BOCK, G.; TOR WORKING GROUP
Anisotropy across the TESZ from shear-wave splitting

10:45 END OF SESSION

SE19 The Trans European Suture Zone (TESZ) - Poster Session

Convener: Thybo, H.
Co-Convener(s): Blundell, D.J.; Gee, D.G.; Guterch, A.; Pharaoh, T.C.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE
Co-sponsored by: EUROPROBE
Chairperson: Thybo, H.

SE059 WYBRANIEC, S.; **ZHOU, S.**; FORSBERG, R.; LEE, M.; DEMIANOV, G.; WONIK, T.; PERCHUC, E.; THYBO, H.; WILLIAMSON, J.P.
European potential field data and their tectonic implications

SE060 **KRAWCZYK, C.M.**; STILLER, M.; POLOM, U.; BASIN'96 WORKING GROUP
The northern rim of the Central European Basin system - the offshore-onshore survey BASIN'96

SE061 PHARAOH, T.; EUROPROBE TESZ PROJECT PARTICIPANTS
The Trans-European Suture Zone (TESZ) project

SE062 **YEGOROVA, T.P.**; STAROSTENKO, V.I.
Structure of the lithosphere below the transition zone between western Europe and east-European platform according to 3-D gravity modelling data

SE063 MAKARENKO, G.F.
The place consistency of the Tornquest zone in geological time

SE064 **LEMARCHE, J.**; LEWANDOWSKI, M.; MICHALSKI, K.; MANSY, J.L.; SZULCZEWSKI, M.; BERGERAT, F.
Structural and paleomagnetic dating of tectonic-related fracture fills

SE065 **RABBEL, W.**; BEILECKE, T.; FREHERS, S.; DEKORP WORKING GROUP "NORTH GERMAN BASIN"
DEKORP basin 1996: recent results of the seismic wide-angle measurements

SE066 MCCANN, T.; ONDRAK, R.; **KRAWCZYK, C.M.**
Geological development of the NE German basin

SE067 BUDWEG, M.; BUSCHE, H.; RABBEL, W.; WOELBERN, I.; TOR WORKING GROUP, DEKORP WORKING GROU
TOR - teleseismic investigation of the Trans-european Suture Zone

SE20 Aspects of the Carpathian-East Alpine-Pannonian geodynamics: the PANCARDI approach

Convener: Tomek, C.
Co-Convener(s): Neubauer, F.
Thursday, 23 April 1998
Lecture Room: R1
Chairperson: Neubauer, F.
Editor: Tomek, C.

09:00 **MARTON, E.**; TOKARSKI, A.K.; MASTELLA, L.
SE20-001 Paleomagnetic results from tertiary Podhalle flysch, Polish West Carpathians

09:15 **MOSAR, J.**; STAMPFLI, G.M.
SE20-002 Plate tectonics of the Apulia-Carpathian regions

09:30 VOZAR, J.; **TOMEK, C.**; VOZAROVA, A.
SE20-003 Meliata, Hronic and Fatric orogenies of the west Carpathians revealed by deep reflection seismics in the east Slovakia

09:45 **PLASIENKA, D.**; JANAK, M.; LUPTAK, B.;
SE20-004 MILOVSKY, R.; FREY, M.
Kinematics and metamorphism of a cretaceous core complex: the Veporic unit of the western Carpathians

10:00 PANAIOTU, C.; PANAIOTU, C.E.; PICSKAY, Z.;
SE20-005 ROSU, E.
East clockwise rotation in the eastern Pancardi region during middle miocene

10:15 ZUCHIEWICZ, W.; TOKARSKI, A.K.;
SE20-006 RUBINKIEWICZ, J.; LEONOWICZ, P.; SZCZESNY, R.; MASTELLA, L.
New data on structural history of Silesian and Magura nappes, outher Carpathians (Poland) inferred from analysis of cross-fold joints
10:30 BREAK

Chairperson: Tomek, C.
Editor: Neubauer, F.

11:00 **NEMCOK, M.**; COWARD, M.P.; SERCOMBE,
SE20-007 W.J.; KLECKER, R.A.
Structure and contents of the west Carpathian accretionary wedge: insights from balancing and sandbox modelling
11:15 TOKARSKI, A.K.; SWIERCZEWSKA, A.
SE20-008 Structural development of inner part of the Magura nappe, outer Carpathians (Poland)
11:30 ZEYEN, H.; **BIELIK, M.**
SE20-009 Integrated lithospheric modelling in the western Carpathians
11:45 LANKREIJER, A.
SE20-010 Tectonic and rheologic evolution of sedimentary basins in the Pannonian-Carpathian area
12:00 **ZOETEMEIJER, R.**; VAN WEES, J.D.;
SE20-011 BUBNIAK, I.; SLACZKA, A.
3D-flexural modelling of the west- and east Carpathian transition zone: problem description and preliminary results
12:15 **HUISMANS, R.**; PODLADCHIKOV, Y.;
SE20-012 CLOETINGH, S.
Pannonian basin syn- and post-rift evolution: dynamic modelling of the transition from passive to active rifting
12:30 **KURZ, W.**; UNZOG, W.; NEUBAUER, F.
SE20-013 Structural evolution of alpine eclogites: implications for alpine geodynamics
12:45 **NEUBAUER, F.**; GENSER, J.; KURZ, W.; WANG,
SE20-014 X.
Exhumation of the Tauern window, eastern Alps
13:00 END OF SESSION

SE20 Aspects of the Carpathian-East Alpine-Pannonian geodynamics: the PANCARDI approach - Poster Session

Convener: Tomek, C.
Co-Convener(s): Neubauer, F.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE
Editors: Neubauer, F.; Tomek, C.

SE068 KREJCI, O.; HUBATKA, F.; SVANCARA, J.
SE20-015 Construction of the structural cross-sections through the Carpathian Flysh belt using the methods of the frequency analysis of the seismic and gravity data
SE069 BIELIK, M.; **SOTAK, J.**; SEFARA, J.; BEZAK,
SE20-016 V.
Lithosphere structure in the west Carpathian-Pannonian-east Carpathian triple junction area based on geophysical data
SE070 JANAK, M.; **SPISIAK, J.**; PITONAK, P.
SE20-017 Pre-alpine metamorphism of the western Carpathians: the tatric unit
SE071 **HETTEL, S.**; MÜLLER, B.; SPERNER, B.
SE20-018 The stress field of the collision-subduction zone in SE-Romania
SE072 **SPISIAK, J.**; HOVORKA, D.
SE20-019 Morb basalts from Maliata-Hallstatt Ocean (Meliata unit, inner western Carpathians)
SE073 **MARTIN, M.**; LORENZ, F.P.; ONCESCU,
SE20-020 M.C.; WENZEL, F.
Joint tomography inversion of the Carpathian arc in Romania
SE074 **GRABOWSKI, J.**; NEMCOK, M.
SE20-021 Summary of paleomagnetic and structural data from the central West Carpathians of Poland and Slovakia: evidence for the late Cretaceous-early Tertiary transpression
SE075 TOKARSKI, A.K.; SWIERCEWSKA, A.
SE20-022 Structural development of inner part of the Magura nappe, outer Carpathians (Poland)
SE076 ZUCHIEWICZ, W.
SE20-023 Neotectonic structures in the outer east Carpathians, Poland, in the light of morphometric studies
SE077 NAZAREVYCH, A.V.; NAZAREVYCH, L.YE.
SE20-024 Mechanics and rheology of the Earth's crust of the Transcarpathians according to spatial-temporal structure of seismogeoacoustic mode and a complex of geophysical data
SE078 **WILLINGSHOFER, E.**; CLOETINGH, S.;
SE20-025 NEUBAUER, F.
Significance of Gosau basins for the upper cretaceous geodynamic history of the Alpine-Carpathian belt
SE079 **MAURITSCH, H.J.**; SCHOLGER, R.;
SE20-026 HAUBOLD, H.
Reconstruction of the geodynamic defelopment of the northern Calcareous Alps based on paleomagnetism - review and new data
SE080 **UNZOG, W.**; KURZ, W.
SE20-027 Microfabrics and CPO's at different stractural levels of the eastern central Alps: implications for the rheological evolution of a collisional orogen

SE21 Open session on seismology

Convener: Rabbel, W.
Wednesday, 22 April 1998
Lecture Room: R2
Chairpersons: Dost, B.; Bokelmann, G.

09:00 **NISHIZAWA, O.**; SATOH, T.; LEI, X.
An accurate three-component observation of elastic waveform by using a laser Doppler vibrometer: a new method of physical modelling to study seismic waves in complex media
09:15 SLEEMAN, R.; VAN ECK, T.
Providing single station phase data to a seismic warning sytem
09:30 DOST, B.; HAAK, H.
Induced seismicity in the Netherlands
09:45 BOKELMANN, G.
Monitoring elastic-wave velocity variations in the Earth's crust using machine noise

SE

10:00 **POHL, M.M.**; WENZEL, F.; KIND, R.; PLENEFISCH, T.; KLINGE, K.
Investigation of the crustal structure in south-east Germany using receiver functions

10:15 **SUETNOVA, E.**; BALLING, N.
Fluid pressure and seismic reflectivity in the lower crust

10:30 KRASNOVA, M.A.
Upper crust anisotropy in Iceland

10:45 **KOSLOFF, D.**; KOREN, Z.; ZAKHEM, U.
Geologically consistent tomographic subsurface structure determination from seismic data

11:00 ANGELIER, J.
A new direct inversion of earthquake focal mechanisms to reconstruct the stress tensor

11:15 FINZI-CONTINI, G.
Visco-elastic models (Maxwell & Kelvin) to interpret seismic evidences of certain Romagna-Marche Umbria earthquakes by L-transform methods (Italian Apennine)

11:30 **KUZNETSOV, V.V.**; KHOMUTOV, S.Y.; PLOTKIN, V.V.; GREKHOV, O.E.; PAVLOV, A.F.; FEDOROV, A.N.
The acoustic and electromagnetic phenomena in the atmosphere during the vibroseismic sounding

11:45 END OF SESSION

12:00 Business Meetings

SE21 Open session on seismology - Poster Session

Convener: Rabbel, W.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairperson: van Eck, T.

SE118 DOST, B.; VAN ECK, T.; SLEEMAN, R.; EVERS, L.
Observations and research facilities for European seismology (ORFEUS)

SE119 PATANE, D.; FERRARI, F.
A PC-based programme using a multi-algorithm approach to automatic detection and location of local earthquakes

SE120 **LOMAX, A.**; CATTANEO, M.; BETHOUX, N.; DESCHAMPS, A.; COURBOULEX, F.; DEVERCHERE, J.; VIRIEUX, J.
Comparison of linear and non-linear earthquake locations for the 1995 Ventimiglia sequence

SE121 **HERAK, D.**; HERAK, M.; KUK, V.; PRELOGOVIC, E.
The Ston-Slano (Croatia) earthquake sequence of 1996

SE122 **JANSKY, J.**; KVANSICKA, M.
Amplitude weighting of the fresnel volumes of P-waves in the Earth global model

SE123 **GOLDIN, S.**; MITROFANOV, G.; BARYLNIKOV, A.
Iterative methods in ray seismic tomography

SE124 **GAFFET, S.**; GLANGEAUD, F.; PISCERCHIA, P.-F.; NARDIN, M.; ROYER, L.; DEVERCHERE, J.
Rinalig experiment on T wave measurement in Ligurian Sea

SE22 Images of the continental lithosphere by active seismic methods

Convener: Rabbel, W.
Co-Convener(s): Gallart Muset, J.; Thybo, H.
Tuesday, 21 April 1998
Lecture Room: R1
Chairperson: Thybo, H.

11:00 MARSELLA, E.; BIELLA, G.; DE FRANCO, R.; CORSI, A.; GIUNTINI, R.
Deep structure from DSS data and tectonic setting of southern Apennines

11:15 **GALLART, J.**; PULGAR, J.A.; CARBONELL, R.; DIAZ, J.; CORDOBA, D.; DANOBEITIA, J.J.
The western ending of the Pyrenees: crustal structrue of the Basque-Cantabrian basin

11:30 CONTRUCCI, I.; NERCESSIAN, A.; BETHOUX, N.; MAUFFRET, A.; FERRANDINI, J.
Deep structure of the North Tyrrhenian Basin from on land seismic recording and multi-channel seismic profiles

11:45 CONTRUCCI, I.; NERCESSION, A.; MAUFFRET, A.; BETHOUX, N.; PASCAL, G.
Deep structure of the Ligurian Sea long a Nice-Calvi line from on land seismic recording, multi-channel seismic profiles and expanded spread profiles

12:00 **DOS REIS, T.**; MAUFRETT, A.; GALLAT, J.; VIDAL, N.; DIAZ, J.
Deep structures of the Menorca margin from deep seismic survey

12:15 GALLART, J.; VIDAL, N.; DIAZ, J.; MAUFFRET, A.; DOS REIS, T.
Continental crust in the Menorca margin: velocity-depth constraints

12:30 **DELLA VEDOVA, B.**; PELLIS, G.; PETRONIO, L.; TASSONE, A.; FEBRER, J.; RINALDI, C.; TENAP GROUP
Seismic experiment across the northern tip of the Antarctic peninsula (TENAP project)

12:45 **ABRAMOVITZ, T.**; BROCHER, T.M.; MOONEY, W.D.
P- and S-wave velocity structure of the San Andreas fault system in the San Francisco Bay ara

13:00 LUNCH

Chairpersons: Thybo, H.; Gallart Muset, J.; Rabbel W.

14:00 **MUSACCHIO, G.**; WHITE, D.J.; ASUDEH, I.
The LITHOPROBE western superior transect: a close look at the archean lithosphere

14:15 **STILLER, M.**; JÖRN, K.; STEER, D.; DEKORP/URSEIS RESEARCH GROUP
URSEIS'95 - new results after thorough reprocessing of the explosion-source reflection-profiling component

14:30 ECHTLER, H.P.; STILLER, M.; URSEIS RESEARCH GROUP
Preservation and origin of paleozoic collisional fabrics in the southern Urals - URSEIS'95

14:45 LECERF, D.; ITZIN, M.; WENZEL, F.; **CARBONELL, R.**; MAKOVSKY, Y.; GALLART, J.; PEREZ-ESTAUN, A.
The wide-angle Moho across the southern Urals

15:00 **JUHOJUNTTI, N.**; JUHLIN, C.
Lower crustal reflectivity at the boundary between the Transscandinavian Igneous Belt and the Svecofennian Domain
15:15 **KORJA, A.**; HEIKKINEN, P.J.; AARO, S.
Crustal structure of the Bothnian Sea
15:30 **MASSON, F.**; HAUSER, F.; JACOB, A.W.B.; LANDES, M.
Lithospheric structure across the Iapetus suture zone in Ireland: teleseismic observations along a controlled source profile
15:45 BUSKE, S.
3-D prestack migration of the ISO89-3D data set
16:00 RABBEL, W.; BOHLEN, TH.; POHL, M.; SIEGESMUND, S.; WEISS, TH.
Shear wave anisotropy of laminated lower crust: seismic field data compared with laboratory data
16:15 PERCHUC, E.; **THYBO, H.**; PAVLENKOVA, N.
Variation in depth and character of the 400 km discontinuity
16:30 KOVALEVSKY, V.V.
The lithosphere tomography using super powerful vibrational sources
16:45 END OF SESSION

SE22 Images of the continental lithosphere by active seismic methods - Poster Session

Convener: Rabbel, W.
Co-Convener(s): Gallart Muset, J.; Thybo, H.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairpersons: Rabbel, W.; Gallart Muset, J.

SE081 **STILLER, M.**; JÖRN, K.; STEER, D.; DEKORP/URSEIS RESEARCH GROUP
URSEIS'95 - new results after thorough reprocessing of the explosion-source reflection-profiling component
SE082 **DE FRANCO, R.**; BIELLA, G.; CORSI, A.; CAIELLI, G.; MAUFFRET, A.; CONTRUCCI, I.
Crustal structure of the northern Tyrrhenian from reflection-refraction data
SE083 ZITELLINI, N.; SARTORI, R.; **TORELLI, L.**
Structure and seismic stratigraphy of the lower Moroccan Atlantic margin off Meseta
SE084 HAJNAL, Z.; NEMETH, B.
Seismic signature of the lower crust and lithospheric mantle below the Trans-Hudson Orogen, Canada
SE085 **THYBO, H.**; ZHOU, S.; PERCHUC, E.
The transition from "cold" to "hot" areas of North America and the location of high seismicity zones
SE086 **MORDVINOVA, V.V.**; VINNIK, L.P.; KOSAREV, G.L.; ORESHIN, S.I.; TREUSOV, A.V.
The origin of the Baikal rift: hypotheses and seismic data
SE087 HYVÖNEN, T.; SANINA, I.A.
Local tomographic study of southern Finland
SE088 **DOMASCHK, U.**; SCHMIDT, J.; FLÜH, E.R.
Lithospheric investigation in the south eastern North Sea
SE089 **ALEKSEEV, A.S.**; GLINSKY, B.M.; KOVALEVSKY, V.V.
Active vibroseismic methods in modern seismology problems
SE090 **CHEN, K.-J.**; JENG, Y.
Investigation on shallow faults by seismic t* values

SE23 Seismic anisotropy, scattering and attenuation

Convener: Plomerova, J.
Co-Convener(s): Bean, C.J.
Thursday, 23 April 1998
Lecture Room: HERMES
Chairperson: Plomerova, J.

Mantle - anisotropy

08:30 FURLONG, K.P.
Complex patterns of seismic anisotropy in regions of active tectonics (Solicited Paper)
09:00 **RÜMPKER, G.**; SILVER, P.G.
Interpretation of shear-wave splitting observations in the presence of vertically-varying anisotropy
09:15 **PLENEFISCH, T.**; KLINGE, K.; KRUEGER, F.; KIND, R.
Anisotropy and structure of the upper mantle beneath the transition zone of Saxothuringicum and Moldanubicum
09:30 GAO, S.; DAVIS, P.M.; LIU, H.; **ZORIN, YU.A.**; LOGACHEV, N.A.
SKS splitting beneath the Baikal rift zone
09:45 **POLET, J.**; KANAMORI, H.
Anisotropy beneath California: shear wave splitting measurements using a dense broadband array
10:00 **BABUSKA, V.**; PLOMEROVA, J.
Seismic anisotropy and large-scale fabric of mantle lithosphere of Precambrian cratons
10:15 **DEBAYLE, E.**; KENNETT, B.L.N.
Anisotropy in the Australian upper mantle from waveform inversion
10:30 BREAK

Chairperson: Babuska, V.

Mantle-anis. tomography, heter., scatt ...

11:00 **GRANET, M.**; ACHAUER, U.; SOBOLEV, S.
Isotropic tomographic inversion and anisotropic mantle: what do we miss? (Solicited Paper)
11:30 **JUDENHERC, S.**; GRANET, M.; BOUMBAR, N.
Anisotropic tomography of lithosphere beneath France using regional arrival times
11:45 **CARBONELL, R.**; GALLART, J.; PEREZ-ESTAUN, A.
Transition between different degrees of heterogeneity beneath the southern Urals
12:00 **TITTGEMEYER, M.**; WENZEL, F.; RYBERG, T.; FUCHS, K.
Scales of heterogeneities in the continental crust and upper mantle

12:15 IGEL, H.
Scattering in the Earth's mantle
12:30 KOPNICHEV, YU.F.
Space-time variations of shear wave attenuation field in lithosphere and asthenosphere of the North Tien Shan
12:45 EGORKIN, A.V.
Body wave attenuation in the crystalline crust and mantle from PNE data
13:00 LUNCH

Chairperson: Bean, C.J.

Crust

14:00 HOLLIGER, K.
Reference models of seismic heterogeneity in the lithosphere: a 1/f-perspective (Solicited Paper)
14:30 **BIANCO, F.**; CASTELLANO, M.; DEL PEZZO, E.
Seismic anisotropy in Italian volcanic areas
14:45 **FRENJE, L.**; JUHLIN, C.
Scattering attenuation and properties of random media in 3D finite difference simulations
15:00 **GUILBERT, J.**; POUPINET, X.; ALLEMAND, P.
French Massif Central: determination and modelisation of P-wave attenuation
15:15 PETROSINO, S.; LA ROCCA, M.; SACCOROTTI, G.; **BIANCO, F.**; CASTELLANO, M.; CARMONA, E.; IBANEZ, J.; DEL PEZZO, E.
A seismic array on Mt. Vesuvius
15:30 BIANCO, F.; **CASTELLANO, M.**; DEL PEZZO, E.; IBANEZ, J.
Measurements of intrinsic and scattering attenuation at Mt. Vesuvius
15:45 **BEAN, C.J.**; O'DOHERTY, K.; MCCLOSKEY, J.
Scattered waves an an imaging tool
16:00 JONES, C.; **MEREDITH, P.**
An experimental study of elastic wave propagation and permeability anisotropy in crustal rocks
16:15 END OF SESSION

SE23 Seismic anisotropy, scattering and attenuation - Poster Session

Convener: Plomerova, J.
Co-Convener(s): Bean, C.J.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairperson: Granet, M.

SE091 MARGHERITI, L.; NOSTRO, C.; LUCENTE, F.P.; AMATO, A.; **COCCO, M.**
Teleseismic shear wave splitting versus upper mantle heterogeneity in Italy
SE092 **HERAK, M.**; LOKMER, I.
Anisotropy of the P-wave velocity in the aea of central and southern external Dinarides, Croatia
SE093 OANCEA, V.
Global distribution of coda-Q factor
SE094 **VALES, D.**; FITAS, A.; SENOS, M.L.; RAMALHETE, D.; CARRILHO, F.
Anelastic attenuation in the north of Portugal
SE095 CASTELLANO, M.; BIANCO, F.; VILARDO, G.
Variations of the Vp/Vs ratio at Mt. Vesuvio
SE096 **CHEN, K.-J.**; JENG, Y.
The attenuation structures of body-wave and its tectonic implications in Taiwan area
SE097 DRENNOV, A.F.
A comparison of scattering components of seismic wave fields on rocky and loose grounds
SE098 KALOGERAS, I.S.; BASKOUTAS, I.G.
Shear wave velocity differences in Aegean region, Greece, as inferred from Rayleigh wave dispersion
SE099 YING, J.; SINGH, S.
Anisotropy from genetic waveform inversion of multi-component wide-aperture seismic data
SE100 **MITROFANOV, G.**; NEFEDKINA, T.; GIRSHGORN, L.
Aspects of Proni-transformation applying in seismic data processing
SE101 **MARTYNOV, V.N.**; MIKHAILENKO, B.G.
Some algorithms for calculation of synthetic seismograms in anisotropic media
SE102 **CHICHININA, T.I.**; OBOLENTSEVA, I.R.
Accounting for spatial dispersion in seismic-wave propagation

SE24 Seismic rupture processes: confrontation of observations and theory

Convener: Ihmlé, P.F.
Co-Convener(s): Deschamps, A.
Tuesday, 21 April 1998
Lecture Room: R9
Chairpersons: Ihmlé, P.F.; Deschamps, A.

08:30 **COURBOULEX, F.**; DEICHMANN, N.; GARIEL, J.C.
Rupture process of the 1996 Epagny-Annecy earthquake (French Alps)
08:45 BOUCHON, M.
Stress and friction on earthquake faults inferred from near-field seismic data
09:00 THIO, H.K.
Seismic moment and energy ratios for earthquakes in southern California
09:15 IHMLE, P.F.
On the interpretation of subevents in teleseismic waveforms: analysis of the deep Bolivia 1994 earthquake
09:30 MADARIAGA, R.
Rupture dynamics in 3D: why is it always complex? (Solicited Paper)
10:00 **PERROT, J.**; YOUNG, R.P.; BAKER, C.
Earthquake rupture process in complex media using genetic algorithm based waveform inversion
10:15 **PEYRAT, S.**; BUFORN, E.; MADARIAGA, R.; UDIAS, A.
Seismic source studies of El Salvador earthquakes
10:30 COCHARD, A.; **IHMLE, P.F.**
Source tomography and frictional properties of large subduction zone earthquakes
10:45 TAVERA, H.; BUFORN, E.
Seismicity and seismotectonics of Peru
11:00 END OF SESSION

SE24 Seismic rupture processes: confrontation of observations and theory - Poster Session

Convener: Ihmlé, P.
Co-Convener(s): Deschamps, A.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE

SE169 **AKSENOV, V.V.**; LOCAICEK, T.
Moving waves of deformation as a mechanism of seismic rupture process

SE170 RYBICKI, K.R.; YAMASHITA, T.
Faulting in a vertically inhomogeneous medium - negative stress drop barriers

SE171 **PERFETTINI, H.**; STEIN, R.S.; SIMPSON, R.W.; COCCO, M.
Effects of some previous earthquakes on the Loma Prieta rupture

SE172 OZEL, N.; PINAR, A.; MORIYA, T.; KASAHARA, M.
Source process of the 1993 Kushiro-Oki earthquake

SE173 **LEBORGNE, S.**; MADARIAGA, R.
Modelling body waves at intermediate distances (17°-30°) with a Gaussian beam summation method

SE174 IVANOV, V.V.
Where will be the next great earthquake

SE175 PATANE, D.; GIAMPICCOLO, E.
Scaling relation between earthquakesize and duration of faulting for microearthquakes at Mount Etna Volcano (southern Italy)

SE24.1 The Umbria-Marche earthquake sequence of 1997: first results

Convener: Ihmlé, P.F.
Co-Convener(s): Amato, A.
Tuesday, 21 April 1998
Lecture Room: R9
Chairpersons: Amato, A.; Ihmlé, P.F.

11:00 GALLI, P.; BASILI, R.; BOSI, V.; GALDINI, F.; MEGRAOUI, M.; MESSINA, P.; MORO, M.; SPOSATO, A.
The central Italy earthquake of September-October 1997: geological effects and seismotectonic hypotheses

11:20 **VITTORI, E.**; CELLO, G. DEIANA, G.; MANGANO, P.; MAZZOLI, S.; TONDI, E.; FERRELI, L.; MASCHIO, L.; MICHETTI, A.M.; SERVA, L.; VITTORI, E.
Geological effects of the September 26, 1997 earthquakes in central Italy

11:40 **MORELLI, A.**; OLIVIERI, M.; EKSTRÖM, G.; DZIEWONSKI, A.M.; BOSCHI, E.
Source properties of the central Italy earthquake sequence of September-October 1997

12:00 **AMATO, A.**; AZZARA, R.; BASILI, A.; CHIARABBA, C.; CIMINI, G.B.; COCCO, M.; DI BONA, M.; MARGHERITI, L.; MAZZA, S.; MELE, F.; SELVAGGI, G.; COURBOULEX, F.; DESCHAMPS, A.; GAFFET, S.; BITTARELLI, G.; CHIARALUCE, L.; PICCININI, D.; RIPEPE, M.
Main shocks and aftershocks of the 1997 Umbria-Marche (Italy) earthquake sequence

12:20 CATTANEO, M.; DE LUCA, G.; GORINI, A.; MICHELINI, A.; **MONACHESI, G.**; PONZIANI, F.; XGUMS
Umbria-Marche earthquake sequence: the contribution of the Umbria, Marche and Abruzzo local seismic networks

12:40 **DIETRICH, M.**; GAFFET, S.; CASERTA, A.; BOUCHON, M.; CORNOU, C.; COURBOULEX, F.; CULTERA, G.; GLOT, J.-P.; GUIGUET, R.; MARRA, F.
A site effect study during the 1997 Umbria-Marche earthquakes I: field investigations

Stand-by paper:
FRANCESCHETTI, G.; SALVI, S.; SANSOSTI, E.; STRAMONDO, S.; TESAURO, M.
Coseismic surface displacment during the Colfiorito (central Italy) earthquake retrieved by SAR interferometry *

13:00 END OF SESSION

SE24.1 The Umbria-Marche earthquake sequence of 1997: first results - Poster Session

Convener: Ihmlé, P.F.
Co-Convener(s): Amato, A.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE

SE176 **BERARDI, R.**; ENEL ACCELEROMETRIC NETWORK WORKING GROUP; MARSAN, P.; SSN SEISMIC MONITORING WORKING GROUP; DESCHAMPS, A.; NICE UNIVERSITY RESEARCH GROUP; DI BONA, M.; ING RESEARCH GROUP
Strong ground motions during the 1997 Umbria-Marche earthquake sequence

SE177 ZOLLO, A.; BONGIOVANNI, G.; HERRERO, A.; MARCUCCI, S.; MILANA, G.
The 1997 Colfiorita earthquake sequence (central Italy): insights on the mainshock ruptures from near source strong motion records

SE178 **BOUCHON, M.**; GAFFET, S.; CORNOU, C.; DIETRICH, M.; GLOT, J.-P.; COURBOULEX, F.; CASERTA, A.; CULTRERA, G.; GUIGUET, R.
Evidence for high vertical accelerations during the 1997 Umbria-Marche (central Italy) earthquakes

SE179 **SARAO, A.**; ROMANELLI, F.; COSTA, G.; PANZA, G.F.
Source inversion and macroseismic modelling for the Umbrian-Marche main events

* not included in the Book of Abstracts

SE180 **CATTANEO, M.**; MICHELINI, A.; MILANA, G.; XGUMS,
Umbria-Marche earthquake sequence: seismicity and velocity structure to the south of the town of Sellano

SE181 CATTANEO, M.; **MICHELINI, A.**; MILANA, G.; XGUMS
Umbria-Marche earthquake sequence: the GNDT-UNIGE/OGS-DINMA and SSN seismic network

SE182 DE MARTINI, P.M.; MARCHIONI, A.; **VALENSISE, G.**
Pre-seismic slip on the 26/IX/1997, Umbria-Marche earthquake fault? Unexpected clues from a comparison of seismometric and leveling data

SE183 **HUNSTAD, I.**; ANZIDEI, M.; BALDI, P.; GALVANI, A.; PESCI, A.
GPS observations of co-seismic displacement of the Umbria-Marche seismic sequence

SE184 **NOSTRO, C.**; COCCO, M.; EKSTROM, G.
Static stress changes and fault interaction during the 1997 Umbria-Marche earthquake sequence

SE185 **RIPEPE, M.**; BITTARELLI, G.; CHIARALUCE, L.; PICCININI, D.; POGGI, P.
Origin of the sound produced by the Calfiorito's earthquakes

SE186 CINTI, F.; CUCCI, L.; MARRA, F.; MONTONE, P.
Preliminary analysis of the surface effects produced by the Umbrian-Marche seismic sequence and possible seismotectonic implications

SE187 GALADINI, F.; GALLI, P.; LESCHIUTTA, I.; MONACHESI, G.; **STUCCHI, M.**
The September-October 1997 Umbria-Marche (central Italy) earthquake sequence in the seismicity and the active tectonics framework of the central Apennine

SE188 BONCIO, P.; LAVECCHIA, G.
Regional seismotectonic context of the September-October 1997 Colfiorito earthquakes (central Italy)

SE189 **MEGHRAOUI, M.**; BOSI, V.
Rupture geometry and structural control of fault fragments during the Colfiorito earthquake sequence of Sept.-Oct. 1997

SE190 **GAFFET, S.**; COURBOULEX, F.; CORNOU, C.; CASERTA, A.; BOUCHON, M.; CULTRERA, G.; DIETRICH, M.; GLOT, J.-P.; GUIGUET, R.; MARRA, F.
A site effect study during the 1997 Umbria-Marche (central Italy) earthquakes II: preliminary results

SE191 CASERTA, A.; MARRA, F.; ROVELLI, A.
Effects of local amplification at two strong-motion stations as inferred from small aftershocks during the Umbria-Marche seismic sequence

Attend the Poster Session

SE25 High-resolution seismics: theory, methods and applications

Convener: Lykke-Andersen, H.
Co-Convener(s): Brancolini, G.
Thursday, 23 April 1998
Lecture Room: R3
Chairperson: Juhlin, C.

08:45 GIBERT, D.; HOLSCHNEIDER, M.; SARACCO, G.; **VALERO, H.P.**
Development and optimization of new methods to deconvolve data of instrumental devices: γ version

09:00 BIRYULINA, M.S.; **RYZHIKOV, G.A.**
Sharp deconvolution with application to suppression of multiples

09:15 GIBERT, D.; SARACCO, G.; **VALERO, H.P.**
Analyzing and filtering of complex wavetrains in borehole with the continuous wavelet transform: γ version

09:30 DEBSKI, W.
Optimal grid choice for linear tomography problems

09:45 TOTH, T.; HORVATH, F.; NAGYMAROSY, A.; SIMPKIN, P.; VIDA, R.
Application of high-resolution seismics on rivers for neotectonic and river dynamics studies

10:00 VIDA, R.; TOTH, T.; MAGYARI, O.
Ultra-high resolution seismis on the lake Balaton, Hungary, processing and interpretation

10:15 **CAMERLENGHI, A.**; REBESCO, M.; DESANTIS, L.; DOMACK, E.W.; KIRBY, M.E.
High resolution seismic stratigraphy of Plamer Deep: a fault bounded late quaternary sediment trap in inner continental shelf, Antarctic Peninsula Pacific margin

10:30 END OF SESSION

SE25 High-resolution seismics: theory, methods and applications - Poster Session

Convener: Lykke-Andersen, H.
Co-Convener(s): Brancolini, G.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairperson: Rebesco, M.

SE125 HOLSCHNEIDER, M.; **SARACCO, G.**
Generating of directional Bessel beams from sources in a hyperplan: application in geosismic exploration. Submission: γ version

SE126 **GERMA, P.-H.**; PERROUD, H.; ROUSSET, D.; SENECHAL, G.
Near surface seismic experiments on an anticlinal flank. Field and numerical data

SE127 GIBERT, D.; SARACCO, G.; **VALERO, H.P.**
Development and optimization of a method of seismic endoscopy in borehole imaging: γ version

SE128 NORMARK, E.; LYKKE-ANDERSEN, H.; ODEGAARD, J.
Screw seismics

SE129 JUHLIN, C.
Experiences from shallow reflection seismics over granitic rocks in Sweden

SE130 HUUSE, M.
high resolution seismic surveying in the eastern Danish North Sea

SE131 **LETH, J.O.**; HUUSE, M.; NORMARK, E.
Multi-scale seismic investigations, Danish North Sea - illustrated by detailed mapping of the Ruby salt diapir

SE26 3-D seismic modelling and high performance computing

Convener: Seron, F.J.
Co-Convener(s): Maggio, F.; Sabadell, F.J.
Tuesday, 21 April 1998
Lecture Room: THALIE
Chairperson: N.N.

14:00 **LUZON, F.**; SANCHEZ SESMA, F.J.; GIL, A.; POSADAS, A.; CANABATE, M.; NAVARRO, M.
Seismic response of 3D topographical irregularities under incoming elastic waves from point sources

14:15 **JANOD, F.**; COUTANT, O.
3D seismic modelling of a topography using a time-domain boundary element method

14:30 RODRIGUES, D.
Large scale 3D modelling of seismic wave propagation on a massively parallel machine

14:45 **SABADELL, J.F.**; SERON, F.J.; BADAL, J.
A multiblock algorithm for parallel wave propagation

15:00 SERIANI, G.
3-D spectral element-by-element wave modelling on Cray T3E

15:15 **OPRSAL, I.**; PAKZAD, M.; ZAHRADNIK, J.
Hybrid modelling of ground motions at a sedimentary basin

15:30 CASADEI, F.; GABELLINI, E.; **MAGGIO, F.**; QUARTERONI, A.
3D seismic modelling of complex media by the mortar method

15:45 FISCHER, R.; **TROMP, J.**
Preudospectral methods for global seismology

16:00 IGEL, H.
3-D numerical seismic modelling in global seismology

16:15 **MARTINEZ, M.D.**; LANA, X.; BADAL, J.; CANAS. J.A.; PUJADES, L.
Simulated annealing in 3-D seismic modelling: elastic structure of the Mediterranean basin from Rayleigh wave velocity dispersion data

16:30 **DCHANDOL, P.**; ROUSSET, D.
Treatment of corner and boundary effects in elastodynamic numerical simulation

16:45 **SERON, F.J.**; SABADELL, F.J.; BADAL, J.; MARTIN, J.M.
Modelling techniques for volumetric reconstruction of Earth structures

17:00 **YAO, Z.S.**; ROBERTS, R.G.
A practical regularization in Krylov space for seismic tomography

17:15 END OF SESSION

* not included in the Book of Abstracts

SE27 Mechanics of tectonic and volcanic earthquakes (co-sponsored by NP)

Convener: Sileny, J.
Co-Convener(s): Panza, G.F.
Thursday, 23 April 1998
Lecture Room: R9
Chairperson: Panza, G.F.

14:00 VAVRYCUK, V.; **SILENY, J.**
Focal mechanism determination in anisotropic media: numerial study

14:15 **DUFUMIER, H.**; RIVERA, L.
On the resolution of the isotropic component in moment tensor inversions

14:30 JECHUMTALOVA, Z.; **SILENY, J.**
Error estimate of the mechanism by Monte Carlo simulation

14:45 PANZA, G.F.; **ENGELL-SOERENSEN, L.**
Earthquake moment tensor and source location retrieval using three-component waveform data

15:00 **DAHM, T.**; MANTHEI, G.; EISENBLÄTTER, J.
Automized moment tensor inversion of fluid-induced micro-seismicity in salt

15:15 **PAKZAD, M.**; ZAHRADNIK, J.; MELIS, N.
Low frequency spectral method for focal mechanisms of weak earthquakes in western Greece

15:30 **KRAVANJA, S.**; SILENY, J.; PANZA, G.F.
Full moment tensor retrieval in geothermal areas *

15:45 **SARAO, A.**; PANZA, G.F.
Robustness of point source moment tensor retrieval in the Etna volcanic area

16:00 DOMINGUEZ, T.; **ZOBIN, V.**
Seismic modelling of explosion earthquakes of Mt. Arenal volcano, Costa Rica

16:15 **ARDELEANU, L.**; RADULIAN, M.; SILENY, J.; PANZA, G.F.
Seismic moment tensor of weak crustal earthquakes of Vrancea (Romania) retrieved by waveform inversion

16:30 **RADULIAN, M.**; POPA, M.
Are the source parameters of the Vrancea (Romania) subcrustal earthquakes depth dependent?

16:45 GUDMUNDSSON, A.
Rift-zone and off-rift earthquakes in Iceland

17:00 WIEMER, S.; **WYSS, M.**
Correlation of anomalously high b-values with magmatic activity

17:15 END OF SESSION

SE27 Mechanics of tectonic and volcanic earthquakes (co-sponsored by NP) - Poster Session

Convener: Sileny, J.
Co-Convener(s): Panza, G.F.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:30 - 19:00
Poster Area: RHODES - SE
Chairperson: Sileny, J.

SE192 **PAKZAD, M.**; ZAHRADNIK, J.; MELIS, N.
Low frequency spectral method for focal mechanisms of weak earthquakes in western Greece

SE192A **POPA, M.**; RADULIAN, M.
Testing of the empirical Green's fuction deconvolution capability in the special case of Vrancea subcrustal earthquakes

SE193 CORREIG, A.M.; **URQUIZU, M.**; VILA, J.; MANRUBIA, S.C.
Aftershock series of event February 18, 1996: an interpretation in terms of self-organized criticality

SE194 NAZAREVYCH, L.YE.
Geomechanics of the Earth's crust of the transcarpathians and mechanisms of local earthquakes according to macroseismic data

SE28 Open session on volcanology, geochemistry and petrology

Convener: Jakes, P.
Tuesday, 21 April 1998
Lecture Room: R1
Chairperson: N.N.

08:45 **TRYGGVASON, A.**; BENZ, H.M.; RÖGNVALDSSON, S.TH.
Seismic travel time tomography studies of two volcanoes, the Long Valley Caldera, California, and the Hengill volcano, Iceland

09:00 BIANCO, F.; CARMONA, X.; CASTELLANO, M.; IBANEZ, J.; LA ROCCA, M.; MARESCA, R.; PETROSINO, S; SACCOROTTI, G.
Wave field analysis of the seismic noise at the Mt. Vesivius, Italy, applying array techniques

09:15 **MÜLLER, M.**; HÖRDT, A.; NEUBAUER, F.M.
Surveying the Vesuvius by transient electromagnetics

09:30 **KONSTANTINOVSKAIA, E.**; BRUNEL, M.; MALAVIEILLE, J.
The microstructural and geochemical evidences of the slow-speading rift environments controlling tectonomagmatic evolution of the upper paleozoic peridotite from the Anyemaqen ophiolite suture zone (Tibet)

09:45 PEREPELOV, A.B.
Classification of volcanic rock series: an experience from the Kamchatka island-arc system

10:00 SCHARFMAN, V.S.; KOSTINA, R.I.; SOBOLEV, R.N.
Facial analysis as a basis for geological mapping ancient volcanic edifice

10:15 PE-PIPER, G.; PIPER, D.J.W.
Tectonic significance of Nd, Sr and Pb isotopic composition of Cenozoic magmatism in the Aegean area

10:30 END OF SESSION

SE29 Continental roots: their petrology, geochemistry and geophysical features

Convener: Jakes, P.
Co-Convener(s): Dragoni, M.
Friday, 24 April 1998
Lecture Room: R10
Chairperson: N.N.

08:45 PELTIER, W.R.; PARI, G.
Subcontinental downwelling: the roots are unstable (Solicited Paper)

09:15 **DE SMET, J.H.**; VAN DEN BERG, A.P.; VLAAR, N.J.; YUEN, D.A.
The development of continental roots: a numerical upper mantle decompression melting model

09:30 **JONES, A.G.**; FERGUSON, I.J.
The absent lower crustal conductor

09:45 **CRAMBES, C.**; TAIT, S.
Melting of thickened continental crust by the passage of basaltic dykes

10:00 **BOERNER, D.E.**; KURTZ, R.D.; CRAVEN, J.A.; ROSS, G.M.; JONES, F.W.
Geophysical evidence of mantle involvement in paleoproterozoic orogenesis

10:15 **MILANOVSKY, S.**; KABAN, M.; EGORKIN, A.; VELIKIN, S.; SNEGIREV, A.
Geological and geophysical peculiarities of the Anabar shield curst like an example of exposed lower continental crust

10:30 ARTEMIEVA, I.
Subcrustal temperatures in Precambrian cratons: a comparative study

10:45 END OF SESSION

SE31 Mechanics and thermalfluid-dynamics of volcanic processes: modelling, observations and laboratory experiments (co-sponsored by NP)

Convener: de Natale, G.
Co-Convener(s): Allard, P.; Bonafede, M.
Monday, 20 April 1998
Lecture Room: ATHENA
Co-sponsored by: Microgravity Advanced Research and Support Centre, Naples, Italy
Chairperson: Bonafede, M.

08:30 GUDMUNDSSON, A.
Effects of stress fields on the intrusion and extrusion frequencies of central volcanoes

08:45 **JENTZSCH, G.**; KRONER, C.; HAASE, O.; WINTER, U.
Mayon volcano; Philippines: modelization of stress balance

09:00 **CAYOL, V.**; DIETERICH, J.; OKUBO, P.
Use of earthquakes and deformations as remote stress-meters

09:15 BARBERI, G.; COCINA, O.; **NERI, G.**; PRIVITERA, E.; SPAMPINATO, S.
Space-time patterns of seismicity and stress-strain parameters at Mt. Etna, Sicily: volcanic and tectonic implications

09:30 BRIMICH, L.
Thermo-viscoelastic models of the deformations and gravity changes due to the magmatic bodies of prismatic shape

09:45 BONAFEDE, M.; **MAZZANTI, M.**
Modelling gravity variations consistent with ground deformation in the Campi Flegrei Caldera (Italy)

10:00 OBRIZZO, F.; PINGUE, F.; TROISE, C.; **DE NATALE, G.**
Coseismic displacements and creeping along the Pernicana Fault (Etna, Italy) in the last seventeen years: a detailed study of a tectonic structure on a volcano

10:15 **CHIARABBA, C.**; AMATO, A.; DELANEY, P.T.
Crustal structure and unrest episodes at the Alban Hills volcano, central Italy
10:30 BREAK

Chairperson: Kilburn, C.

11:00 **GAETA, F.S.**; TROISE, C.; DE NATALE, G.; MASTROLORENZO, G.; PINGUE, F.; PELUSO, F.; CASTAGNOLO, D.; MITA, D.G.
A mechanical-thermalfluid-dynamical model for Campi Flegrei unrest episodes: possible evoltuin towards critical phenomena (Solicited Paper)
11:30 **NATALE, G.**; SALUSTI, E.; TROISI, A.
Rock deformation and fracturing processes due to nonlinear shock waves propagating in hyperthermal fluid-saturated domains
11:45 MACEDONIO, G.; **LONGO, A.**; CIATTI, E.
Numerical modelling of magma withdrawal from compositionally stratified magma chambers
12:00 DAHM, T.
An empirical green function approach to study the rupture of fluid-induced micro-earthquakes
12:15 HELLWEG, M.
Physical source models for harmonic tremor
12:30 **SCARPA, R.**; MARTINI, M.; SACCOROTTI, G.; DE LUCA, G.; CHOUET, B.; DAWSON, P.; FILIPPI, L.; ZAMBONELLI, E; MILANA, G.; MARCUCCI, S.; CATTANEO, M.
Preliminary results from a broadband seismic experiment at Stromboli Volcano, Italy
12:45 **TRIGILA, R.**; PALLADINO, D.M.; TADDEUCCI, J.; SCARLATO, P.
A new pressure vessel for magma- and rock-H_2O interaction studies
13:00 LUNCH

Chairperson: de Natale, G.

14:00 KILBURN, C.R.J.; VOIGHT, B.
Slow rock fracture as an eruption precursor at Soufriere Hills Volcano, Montserrat (Solicited Paper)
14:30 PAPALE, P.
Numerical modelling of magma ascent along volcanic conduits
14:45 **NERI, A.**; MACEDONIO, G.; GIDASPOW, D.
Multiphase flow modelling and simulation of explosive volcanic processes
15:00 TALLARICO, A.; DRAGONI, M.
Viscous flow in a channel: application to lava flows
15:15 **ACOCELLA, V.**; FUNICIELLO, R.; SALVINI, F.
Transfer structures and volcanic activity along the Tyrrhenian margin fo central Italy
15:30 TEDESCO, D.; NAGAO, K.
Seismic activity at the Solfarata crater (Campi Flegrei caldera) shows different sources mixing of fumarolic fluids and possible parameters to forecast the occurrence of new earthquakes
15:45 **DE GORI, P.**; AZZARA, R.; BERTRAND, E.; CAPUANO, P.; CHARABBA, C.; CIACCIO, M.G.; CIMINI, G.B.; DE NATALE, G.; DESCHAMPS, A.; GODANO, C.; TAYLOR, J.; TROISE, C.
The BROADVES seismic experiment: first results on the lithospheric structure beneath the Campanian region around the Vesuvius volcano (Poster)
15:50 TROISE, C.
Stress changes associated with volcanic sources: an example from Kilauea rift eruptions (Poster)
15:55 AVINO, R.; **BERRINO, G.**; CAPALDI, G.; PECE, R.
Temporal variations in groundwaters radon content and geophysical activity in Campi Flegrei (southern Italy) (Poster)
16:00 MASTROLORENZO, G.; D'ALESSIO, G.
Comparative study of pyroclastic deposits in Campi Flegrei (southern Italy): evidences of recurrent eruptive and depositional mechanisms (Poster)
16:05 JABOCS, F.; **FRIEDEL, S.**
Large scale resistivity imaging at Merapi volcano (Poster)
16:10 Concluding Remarks
16:30 END OF SESSION
17:00 Opening
19:30 Reception

SE31 Mechanics and thermalfluid-dynamics of volcanic processes: modelling, observations and laboratory experiments (co-sponsored by NP) - Poster Session

Convener: de Natale, G.
Co-Convener(s): Allard, P.; Bonafede, M.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE
Co-sponsored by: Microgravity Advanced Research and Support Centre, Naples, Italy
Chairperson: Allard, P.

SE195 **DE GORI, P.**; AZZARA, R.; BERTRAND, E.; CAPUANO, P.; CHARABBA, C.; CIACCIO, M.G.; CIMINI, G.B.; DE NATALE, G.; DESCHAMPS, A.; GODANO, C.; TAYLOR, J.; TROISE, C.
The BROADVES seismic experiment: first results on the lithospheric structure beneath the Campanian region around the Vesuvius volcano

SE196 TROISE, C.
Stress changes associated with volcanic sources: an example from Kilauea rift eruptions

SE197 AVINO, R.; **BERRINO, G.**; CAPALDI, G.; PECE, R.
Temporal variations in groundwaters radon content and geophysical activity in Campi Flegrei (southern Italy)

SE198 MASTROLORENZO, G.; D'ALESSIO, G.
Comparative study of pyroclastic deposits in Campi Flegrei (southern Italy): evidences of recurrent eruptive and depositional mechanisms

SE199 JABOCS, F.; **FRIEDEL, S.**
Large scale resistivity imaging at Merapi volcano

Attend the Business Meeting of your Section

on Wednesday, 22 April, 12.00-14.00, Lecture Room R10

SE32 Crustal melting in nature and experiment

Convener: Kotkova, J.
Co-Convener(s): Patino-Douce, A.
Wednesday, 22 April 1998
Lecture Room: R2
Chairpersons: Kotkova, J.; Nabelek, P.
Editors: Kotkova, J.; Brown, M.

14:00 SAWYER, W.
SE32-001 Criteria for the recognition of partial melting (Solicited Paper)
14:30 BRAUN, I.
SE32-002 Generation of leucogranites in the Kerala khondalite belt, southern India
14:45 HURAI, V.; JANAK, M.; **LUDHOVA, L.**
SE32-003 Partial melting and retrogression during exhumation of the high-grade metapelites, the Tatra Mts., western Carpathians
15:00 **NABELEK, P.**; BARTLETT, C.; M. GLASCOCK
SE32-004 Can compositions of leucosomes in migmatites be used as model for compositions of granites?
15:15 KOTKOVA, J.; HARLEY, S.L.
SE32-005 Formation and evolution of HP leucogranulites: experimental constraints and unresolved issues
15:30 **BROWN, M.**; PRESSLEY, R.A.
SE32-006 Crustal melting in nature: prosecuting source processes (Solicited Paper)
16:00 DICKSON, F.W.; HSU, K.J.
SE32-007 Limitations in applying equilibrium studies to open plutons in crustal gradients
16:15 ESCUDER-VIRUETE, J.
SE32-008 Two-stage syn-extension leucogranitic magmatism in the Tormes gneiss dome, NW Iberian Massif, Spain
16:30 PEREIRA, D.; SHAW, D.M.
SE32-009 Relationship between geodynamics and generation of melt in central Spain
16:45 DOLEJS, D.
SE32-010 Two stage melting around mafic reservoirs: an evidence from the Proterozoic of Bohemian Massif
17:00 END OF SESSION

SE33 Pre-eruptive processes I

Convener: Marti, J.
Co-Convener(s): Carroll, M.R.; Fulignati, P.; Gudmundsson, A.
Thursday, 23 April 1998
Lecture Room: ATHENA
Chairperson: Gudmundsson, A.

14:00 **DE NATALE, G.**; GAETA, F.S.; TROISE, C.; PETRAZZUOLI, S.M.; CASTAGNOLO, D.; PINGUE, F.; PELUSO, F.; TRIGILA, R.
Mechanical versus thermalfluid-dynamical effects in the generation of Caldera unrests: examples from Campi Flegrei (Italy) and Rabaul (New Guinea)
14:15 **MARTI, J.**; GUDMUNDSSON, A.
Overlapping collapse calderas
14:30 **MARTI, J.**; TURON, F.
Field, experimental and numerical comparison between Andean type and ocean-island collapse calderas
14:45 **BEAUDUCEL, F.**; CORNET, F.H.
Constraints from displacements and tilt data on the magma chamber at Merapi (Java)
15:00 **FERNANDEZ, J.**; TIAMPO, K.; RUNDLE, J.B.; YU, T.-T.; ALONSO-MEDINA, A.; CARRASCO, J.M.
Modelling deformation, potential and gravity changes caused by a magmatic intrusion
15:15 **TIAMPO, K.F.**; RUNDLE, J.B.; FERNANDEZ, J.M.; LANGBEIN, J.
Ellipsoidal vs. sperical models for magmatic intrusion sources
15:30 **FERNANDEZ, J.**; FOLCH, A.; RUNDLE, J.B.; MARTI, J.
Ground deformation in a viscoelastic multi-layered system. A comparation between analytical and numerical solutions for point and extended sources
15:45 **MARTI, J.**; SORIANO, C.; TURON, E.; VIRAMONTE, J.G.
Collapse calderas devleoped on strike-slip faults
16:00 **ANNEN, C.**; LENAT, J.-F.; PROVOST, A.
Modelling of dike intrusions and vlolcano growth
16:15 **MULARGIA, F.**; BONAZZA, D.; GONZATO, G.; CICCOTTI, M.
Laboratory measurement of the elastic and fracture properties of lavas
16:30 **JENTZSCH, G.**; JAHR, TH.; WEISE, A.; SCHREIBER, U.; SEEBER, G.; VÖLKSEN, C.; PUNONGBAYAN, R.S.
Mayon volcano; Philippines: mass movements after the eruption of 1993 detected by microgravity and GPS measurements
16:45 RESTA, F.; **MARTI, J.**; TURON, E.
Phonolitic dikes at the Las Canadas Caldera (Tenerife, Canary Islands): constraints on the geometry and location of shallow magma chambers
17:00 **GUDMUNDSSON, A.**; LARSEN, G.
Large explosive eruptions in Icelandic central volcanoes
17:15 END OF PART I

SE33 Pre-eruptive processes - Poster Session

Convener: Marti, J.
Co-Convener(s): Carroll, M.R.; Fulignati, P.; Gudmundsson, A.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:30 - 19:00
Poster Area: RHODES - SE

SE201 MARIANELLI, P.; METRICH, N.; SBRANA, A.
A melt inclusion study of volatiles during the 1994 lava fountaining activity at Vesuvius
SE202 **BICHLER, M.**; SORTINO, F.
Evolution of trace elements in fumarolic gases at Vulcano Island (Italy)
SE203 BOLOGNESI, L.
Earthquake-induced changes in the isotopic composition of the water in the geothermal reservoir at Vulcano Island, Italy

SE33 Pre-eruptive processes II

Convener: Marti, J.
Co-Convener(s): Carroll, M.R.; Fulignati, P.; Gudmundsson, A.
Friday, 24 April 1998
Lecture Room: ATHENA
Chairperson: Bonafede, M.

08:30 **LARSEN, G.**; GUDMUNDSSON, A.
Geometry, morphology and formation of Holocene crater rows in Iceland
08:45 **DYER, N.**; KENT, R.; WILSON, L.
Controlling influences in the lateral propagation of dikes and the position of fissure eruptions
09:00 **KENT, R.**; DYER, N.; WILSON, L.
Modelling the flow of magma in dikes using numerical methods
09:15 **CENNI, N.**; BONAFEDE, M.
A porous flow model of magma migration within Mt. Etna: the influence of extended sources and permeability anisotropy
09:30 **MENAND, T.**; TAIT, S.
Magma transport in dike swarms
09:45 BONAFEDE, M.; **RIYALTA, E.**
Tensile cracks in layered media
10:00 **MARINONI, L.B.**; GUDMUNDSSON, A.
Dyke emplacement in shield-stage formations of Tenerife
10:15 **MATTIOLI, G.S.**; DIXON, T.H.; FARINA, F.; HOWELL, E.S.; JANSMA. P.; SMITH, A.L.
Magma chamber evolution inferred from GPS geodesy of Soufriere Hills volcano, Montserrat
10:30 BREAK

Chairperson: Carroll, M.R.

11:00 **STRECK, M.J.**; DILLES, J.H.
Sulfur content of apatite tracking magma degassing evidence from the Yerington Porphyry Copper Batholith, Nevada
11:15 **VAN CALSTEREN, P.**; BLACK, S.; VAN WYK DE VRIES, B.; HAWKESWORTH, C.J.
Constraints on the timescale from nucleation to emanation of volcanic gases
11:30 **NUCCIO, P.M.**; PAONITA, A.; SORTINO, F.
Composition changes of volcanic gas and computation of magma ascent
11:45 **HAWKESWORTH, C.J.**; THOMAS, L.; TURNER, S.P.; ZELLMER, G.; VAN CALSTEREN, P.
The timescales of melt generation and differentiation: evidence from U-series isotopes
12:00 **FOLCH, A.**; MARTI, J.; CODINA, R.
A numerical model for temporal variations during explosive central-vent eruptions
12:15 **GAUTHIER, P.-J.**; CONDOMINES, M.
Radon loss from magmas: degassing mechanisms and consequences on ^{226}Ra-^{210}Pb disequilibria in lavas
12:30 **GAUTHIER, P.-J.**; LE CLOAREC, M.-F.; CONDOMINES, M.; PENNISI, M.
Radionuclide constraints on shallow degassing processes at Stromboli volcano
12:45 ROUSE, P.J.; **CARROLL, M.R.**
Phase equilibria of Na-rich phonolites from Montana Blanca, Tenerife
13:00 LUNCH

Chairperson: van Calsteren, P.

14:00 GARDNER, J.E.; HILTON, M.; **CARROLL, M.R.**
Magma ascent rate and melt-vapor equilibrium in rhyoltic melts
14:15 MOURTADA-BONNEFOI, C.C.; **LAPORTE, D.**
"Easy" homogeneous bubble nucleation in hydrous rhyolitic melts
14:30 **FOLCH, A.**; MARTI, J.
Overpressure in replenished felsic magma chambers
14:45 STAUDACHER, TH.; SEIDEL, J.L.; RICARD, L.P.; CHEMINEE, J.L.
Radon network at Piton de la Fournaise, Reunion Island: seismic crises anticipated by ^{222}Rn pusles
15:00 **SIGNORELLI, S.**; FRANCALANCI, L.; MANETTI, P.; VAGGELLI, G.; CAPACCIONI, B.; ROMANO, C.
Pre-eruptive volatile (H_2O, F, Cl and S) contents of phonolitic magmas feeding the 3600 years-old Avellino eruption from Vesuvius, southern Italy
15:15 **SIGNORELLI, S.**; FRANCALANCI, L.; MANETTI, P.; VAGGELLI, G.; CAPACCIONI, B.
Determination of H_2O, F, Cl and S in volcanic glasses from the A.D. 79 Vesuvius eruption, southern Italy
15:30 BREAK

Chairperson: Marti, J.

16:00 CIONI, R.
Pre-eruption volatiles in AD 79 magma chamber of Vesuvius (Italy)
16:15 DI LIBERTO, V.; NUCCIO, P.M.; PAONITA, A.; **SORTINO, F.**
Variations of fumarolic gases composition at Vulcano Island (Italy) related to hydrothermal system evolution
16:30 **FULIGNATI, P.**; GIONCADA, A.; SBRANA, A.
Rare Earth elements behaviour in the alteration facies of an active high-sulfidation hydrothermal system (Vulcano, Aeolian Islands, Italy)
16:45 CIONI, R.; MARIANELLI, P.; SANTACROCE, R.
An empirical thermometer for Vesuvius magmas
17:00 ORSI, G.; **PETRAZZUOLI, S.M.**; WOHLETZ, K.
The interplay of mechanical and thermo-fluid dynamical systems during unrest episodes in Calderas: the Campi Flegrei Caldera (Italy) case
17:15 FRANCALANI, L.; **TOMMASINI, S.**; CONTICELLI, S.; DAVIES, G.R.
Magma chamber dynamics in the XX Century at Stromboli Volcano, Italy: contributions from mineralogical, chemical and isotope data
17:30 ARMIENTI, P.; SIMAKIN, A.G.; EPELBAUM, M.B.
Experimental degassing of silicatic melts in continuous pressure drop with coupled crystallization *
17:45 END OF SESSION

Attend the Poster Session

SE34 Rockmagnetism, palaeomagnetism and environmental magnetism
.1 New challenges in rockmagnetism, palaeomagnetism and environmental magnetism

Convener: Hoffmann, V.
Co-Convener(s): Petrovsky, E.
Tuesday, 21 April 1998
Lecture Room: R4
Chairperson: N.N.
Editor: Hoffmann, V.

Environmental magnetism

14:05 **PETERS, C.**; TURNER, G.
SE34.1-002 Lake Paringa: a catchment study using magnetic techniques (Poster)
14:10 RUMPLER, D.; BROSS, C.; **KÖSSLER, P.**;
SE34.1-003 APPEL, E.; BIBUS, E.
The paleoclimatic significance of rock magnetic profiles from loess-soil deposits in SW Germany (Poster)

14:15 Change over

Rockmagnetism

14:30 **DUNLOP, D.J.**; ÖZDEMIR, Ö.; SCHMIDT, P.W.;
SE34.1-005 CLARK, D.A.
Time-temperature relations for pyrrhotite and magnetite: use in reconstructing burial and uplift histories (Poster)
14:35 HROUDA, F.; JEZEK, J.; SAIC, S.
SE34.1-006 Theoretical models of magnetic anisotropy to strain considering triaxial magnetic particles (Poster)
14:40 **IBRAGIMOV, S.Z.**; YASONOV, P.G.
SE34.1-007 The study of composition and size of disintegration structures of titanomagnetite using thermomagnetic analysis (Poster)
14:45 **IVAKHNENKO, A.P.**; SUKHORADA, A.V.
SE34.1-008 New data about petromagnetic criterions gold-bearing crustal basement (Poster)
14:50 KUBLER, L.
SE34.1-009 The magnetic signature of pyrrhotite bearing metasedimentary rocks (Poster)
14:55 **MATHE, P.-E.**; HENOCQUE, O.; VANDAMME,
SE34.1-010 D.; ROCHETTE, P.; MAKAYA, M.
Magnetic characterization of manganese oxides from the Tambao lateritic ore deposit (Burkina-Faso) (Poster)
15:00 **MATTSSON, H.**; ELMING, S.-A.
SE34.1-011 A rock magnetic study of a regional deformation zone in the Fennoscandian shield (Poster)
15:05 MÖRNER, N.-A.
SE34.1-012 Increased NRM intensity due to seismic vibration (Poster)
15:10 **ÖZDEMIR, Ö.**; DUNLOP, D.J.
SE34.1-013 Origin of coercivity in multidomain magnetite (Poster)
15:15 PETROVSKY, E.; KAPICKA, A.; JORDANOVA,
SE34.1-014 N.; GEORGEAUD, V.; ROCHETTE, P.
Effect of maximum applied magnetic field on the shpae of hysteresis loops (Poster)
15:20 **THOMPSON, R.**; HARRISON, A.; DERRICK, S.
SE34.1-015 Unusual low-temperature hysteresis and thermomagnetic behaviour of basalts from Tenerife (Poster)
15:25 URBAT, M.; DEKKERS, M.J.
SE34.1-016 Peru basin sediments: clues as to alterations to the NRM (Poster)

15:30 Change over

Palaeomagnetism

15:40 BORRADAILE, G.J.; **WERNER, T.**; LAGROIX, F.
SE34.1-017 Anisotropy-controlled thrusting of archean lower crustal rocks: a rock magnetic study at Kapuskasing, Canada (Poster)
15:45 **EDEL, J.B.**; HUMBERT, C.; HONNOREZ, J.
SE34.1-018 Asynchronous magnetic overprints in the Visean basin of the southern Vosges (France) as a tracer of the APWP of Variscan Europe from Visean up to Jurassic (Poster)
15:50 GOGUITCHAICHVILI, A.; PREVOT, M.;
SE34.1-019 DAUTRIA, J.M.
Anomalous variations of geomagnetic paleointensity within a single pliocene icelandic hyaloclastic lava flow (Poster)
15:55 **HILL, M.J.**; YANG, S.; SHAW, J.; WALTON, D.
SE34.1-020 Palaeointensity results using microwave demagnetisation/remagnetisation (Poster)
16:00 LEWANDOWSKI, M.; ABRAHAMSEN, N.
SE34.1-021 Cambro-ordovician palaeomagnetic results from Bornholm (Denmark), and implications for the drift and rotation of Baltica (Poster)
16:05 **SCHILL, E.**; APPEL, E.; GAUTAM, P.; SINGH,
SE34.1-022 V.K.
Metacorbonates from the lesser Himalaya: do they have potential for palaeomagnetic studies? (Poster)
16:10 WERNER, T.
SE34.1-023 Kinematic relations between magnetic (AMS, AARM) and tectonic fabrics for the Niemcza fault zone, Sudetes foremand, SW Poland (Poster)
16:15 RESHETNYAK, M.
SE34.1-024 Temporal spectra of SV (Poster)
16:20 Concluding Remarks
16:30 END OF SUB-SESSION

SE34 Rockmagnetism, palaeomagnetism and environmental magnetism
.1 New challenges in rockmagnetism, palaeomagnetism and environmental magnetism - Poster Session

Convener: Hoffmann, V.
Co-Convener(s): Petrovsky, E.Convener:
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairperson: N.N.
Editor: Hoffmann, V.

SE206 **PETERS, C.**; TURNER, G.
SE34.1-002 Lake Paringa: a catchment study using magnetic techniques

SE207 RUMPLER, D.; BROSS, C.; **KÖSSLER, P.**;
SE34.1-003 APPEL, E.; BIBUS, E.
The paleoclimatic significance of rock magnetic profiles from loess-soil deposits in SW Germany

SE209 **DUNLOP, D.J.**; ÖZDEMIR, Ö.; SCHMIDT,
SE34.1-005 P.W.; CLARK, D.A.
Time-temperature relations for pyrrhotite and magnetite: use in reconstructing burial and uplift histories

SE210 HROUDA, F.; JEZEK, J.; SAIC, S.
SE34.1-006 Theoretical models of magnetic anisotropy to strain considering triaxial magnetic particles

SE211 **IBRAGIMOV, S.Z.**; YASONOV, P.G.
SE34.1-007 The study of composition and size of disintegration structures of titanomagnetite using thermomagnetic analysis

SE212 **IVAKHNENKO, A.P.**; SUKHORADA, A.V.
SE34.1-008 New data about petromagnetic criterions gold-bearing crustal basement

SE213 KUBLER, L.
SE34.1-009 The magnetic signature of pyrrhotite bearing metasedimentary rocks

SE214 **MATHE, P.-E.**; HENOCQUE, O.;
SE34.1-010 VANDAMME, D.; ROCHETTE, P.; MAKAYA, M.
Magnetic characterization of manganese oxides from the Tambao lateritic ore deposit (Burkina-Faso)

SE215 **MATTSSON, H.**; ELMING, S.-A.
SE34.1-011 A rock magnetic study of a regional deformation zone in the Fennoscandian shield

SE216 MÖRNER, N.-A.
SE34.1-012 Increased NRM intensity due to seismic vibration

SE217 **ÖZDEMIR, Ö.**; DUNLOP, D.J.
SE34.1-013 Origin of coercivity in multidomain magnetite

SE218 PETROVSKY, E.; KAPICKA, A.;
SE34.1-014 JORDANOVA, N.; GEORGEAUD, V.; ROCHETTE, P.
Effect of maximum applied magnetic field on the shpae of hysteresis loops

SE219 **THOMPSON, R.**; HARRISON, A.; DERRICK,
SE34.1-015 S.
Unusual low-temperature hysteresis and thermomagnetic behaviour of basalts from Tenerife

SE220 URBAT, M.; DEKKERS, M.J.
SE34.1-016 Peru basin sediments: clues as to alterations to the NRM

SE221 BORRADAILE, G.J.; **WERNER, T.**;
SE34.1-017 LAGROIX, F.
Anisotropy-controlled thrusting of archean lower crustal rocks: a rock magnetic study at Kapuskasing, Canada

SE222 **EDEL, J.B.**; HUMBERT, C.; HONNOREZ, J.
SE34.1-018 Asynchronous magnetic overprints in the Visean basin of the southern Vosges (France) as a tracer of the APWP of Variscan Europe from Visean up to Jurassic

SE223 GOGUITCHAICHVILI, A.; PREVOT, M.;
SE34.1-019 DAUTRIA, J.M.
Anomalous variations of geomagnetic paleointensity within a single pliocene icelandic hyaloclastic lava flow

SE224 **HILL, M.J.**; YANG, S.; SHAW, J.; WALTON,
SE34.1-020 D.
Palaeointensity results using microwave demagnetisation/remagnetisation

SE225 LEWANDOWSKI, M.; ABRAHAMSEN, N.
SE34.1-021 Cambro-ordovician palaeomagnetic results from Bornholm (Denmark), and implications for the drift and rotation of Baltica

SE226 **SCHILL, E.**; APPEL, E.; GAUTAM, P.;
SE34.1-022 SINGH, V.K.
Metacorbonates from the lesser Himalaya: do they have potential for palaeomagnetic studies?

SE227 WERNER, T.
SE34.1-023 Kinematic relations between magnetic (AMS, AARM) and tectonic fabrics for the Niemcza fault zone, Sudetes foremand, SW Poland

SE228 RESHETNYAK, M.
SE34.1-024 Temporal spectra of SV

SE34 Rockmagnetism, palaeomagnetism and environmental magnetism .2 Past and present geomagnetic field - Poster Session

Convener: Prevot, M.
Co-Convener(s): Love, J.J.; Schnepp, E.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairperson: Prevot, M.

SE229 **BRANDT, U.**; NOWACZYK, N.R.;
RAMRATH, A.; NEGENDANK, J.W.F.
Palaeosecular variations as recorded in sediments of Italian crater lakes

SE230 BORISOV, A.S.; HELLER, F.; KHASANOV,
D.I.; **NURGALIEV, D.K.**; YAKUPOV, A.SH.;
YASONOV, P.G.
Geomagnetic variations in eastern Europe during the last 7500 years

SE231 KUZNETSOV, V.V.
Non-dynamo model fo the Earth, planets and satellite magnetic field generation

SE232 **KUZNETSOV, V.V.**; BOTVINOVSKY, V.V.
Morphology of geomagnetic field created by Earth's interior current loops

SE233 PELLETIER, J.D.
Statistical analysis and modelling of variations in the geomagnetic field

SE234 HEJDA, P.; **RESHETNYAK, M.**
Some geomagnetic field features in "aω"-models

SE235 **CAMPS, P.**; HENRY, B.; PREVOT, M.;
FAYNOT, L.
Geomagnetic paleosecular variation in Crozet islands (Indian Ocean) about one million years ago

SE236 **VANDAMME, D.**; BRUNETON, M.
Problem of elimination of directionnal data clusters in PSV studies

SE237 **KRUIVER, P.P.**; DEKKERS, M.J.;
LANGEREIS, C.G.
Secular variation as recorded in Permian redbeds from Dome de Barrot, France

SE238 **ALGRINIER, P.**; GALLET, Y.; LEWIN, E.
On the age calibration of the geomagnetic polarity time scale

SE239 SOLOGASHVILI, D.; GOGUTCHAICHVILI,
A.; PAVLENICHVILI, E.; MAISSURADZE, G.
Some aspects of Plio-Quaternary geomagnetic field in Georgia (Caucasus)

SE240 NOWACZYK, N.R.
Magnetostratigraphy of long sediment cores from lake Baikal, Siberia, sites BDP-93 and BDP-96

SE241 KARLOUKOVSKI, V.
Polarity reversal, recorded in dacitic volcanic rocks from the Dambaluc volcano, east Rhodope mountains, Bulgaria

SE242 YASONOV, P.P.
Chaos in geomagnetic reversal records: comparison of real and model data

SE243 LEHMAN, B.; **LAJ, C.**; KISSEL, C.
Relative paleointensity determinations from marine sediments: an empirical correction for grain size variations

SE244 POSPELOVA, G.A.; SHARONOVA, Z.V.
Paleomagnetic field intensity recorded in loeses of the Uzbekistan, 53-22 Ka

SE245 REYRE, Y.
The Earth obliquity oscillations, probable cause of the magnetic polarity reverses

SE34 Rockmagnetism, palaeomagnetism and environmental magnetism .2 Past and present geomagnetic field

Convener: Prevot, M.
Co-Convener(s): Love, J.J.; Schnepp, E.
Friday, 24 April 1998
Lecture Room: R4
Chairperson: Prevot, M.

08:45 **BLOXHAM, J.**; KUANG, W.
Numerical models of the geodynamo (Solicited Paper)

09:15 CARDIN, PH.
What can we learn with experimental dynamos? (Solicited Paper)

09:45 LOVE, J.J.
Paleomagnetic volcanic data and geometric regularity of reversals and excursions

10:00 GOGUITCHAICHVILI, A.; PREVOT, M.
Transitional field paleointensity from two icelandic pliocene magnetic polarity reversals

10:15 HOFFMAN, K.A.
Observation of field systematics during the Matuyama-Brunhes reversal and the possible role of electrical conductivity within D"

10:30 BREAK

Chairperson: Love, J.J.

11:00 HARRISON, C.G.A.
Characteristics of the Earth's magnetic field which need to be explained by any model of secular variation (Solicited Paper)

11:30 KRISTJANSSON, L.
Studies of late Cenozoic geomagnetic fields in Iceland (Solicited Paper)

12:00 **SZEREMETA, N.**; LAJ, C.; GUILLOU, H.; KISSEL, C.; CARRACEDO, J.-C.
300 kyrs of geomagnetic paleosecular variation during the Brunhes period from a volcanic section at El Hierro (Canary Islands)

12:15 **ROCHETTE, P.**; VANDAMME, D.
Long term variations of the main geomagnetic field features: global versus regional angular scatter

12:30 **MAZAUD, A.**; CHANNELL, J.E.T.
The upper Olduvai polarity transition at ODP site 983 (Iceland Basin)

12:45 **LEVI, S.**; RON, H.
N -> R polarity pransition in the Matuyama from the Jordan rift, northern Israel

13:00 LUNCH

Chairperson: Schnepp, E.

14:00 TAUXE, L.
Sedimentary records of geomagnetic paleointensity: what can we believe in (Solicited Paper)

14:30 **LAJ, C.**; KISSEL, C.; MAZAUD, A.; BECK, L.; ELLIOT, M.; STONER, J.; CHANNELL, J.E.T.; VOELKER, A.; SARNTHEIN, M.
High resolution stack of relative paleointensity records for the last 80 kyrs from North Atlantic deep sea cores

14:45 **VEROSUB, K.L.**; KARLIN, R.
An ultrahigh resolution record of Holocene paleosecular variation from Saanich inlet, Vancouver Island, British Columbia: initial results

15:00 **BRANDT, U.**; NOWACZYK, N.R.; RAMRATH, A.; NEGENDANK, J.W.F.
Palaeosecular variations as recorded in sediments of Italian crater lakes

15:15 MARCO, S.; **RON, H.**; STEIN, M.; MCWILLIAMS, M.O.
A high-resolution record of geomagnetic secular variation from late Pleistocene Lake Lisan, Israel

15:30 **NOWACZYK, N.R.**; ANTONOW, M.
Review of the Laschamp event - paleomagnetic signature and new age determinations by AMS ^{14}C

15:45 **LAJ, C.**; KISSEL, C.
Geomagnetic field intensity at Hawaii for the last 400 kyrs from core HSDP (Big Island, Hawaii)

16:00 RIISAGER, J.; PERRIN, M.
Paleomagnetism and paleointensity results of late cretaceous basalt from Madagascar

16:15 END OF SESSION

SE34 Rockmagnetism, palaeomagnetism and environmental magnetism .3 Effect of chemical alteration on magnetization

Convener: Özdemir, Ö.
Co-Convener(s): Roberts, A.P.
Tuesday, 21 April 1998
Lecture Room: R4
Chairperson: Roberts, A.P.
Editor: Hoffmann, V.

09:00 ÖZDEMIR, Ö.

SE34.3-001 Effect of chemical changes on magnetization (Solicited Paper)

09:30 SMETHURST, M.T.; **SYMONS, D.T.A.**; LEWCHUK, M.T.; ASHTON, J.H.

SE34.3-002 Hercynian neomorphism and genesis of the Navan Pb-Zn deposit, Ireland, from paleomagnetism

09:45 ROBERTS, A.P.

SE34.3-003 Sedimentary greigite (Fe_3S_4): occurrences, formation and magnetic properties

10:00 **SAGNOTTI, L.**; WINKLER, A.
SE34.3-004 Rock magnetism and palaeomagnetism of greigite-bearing mudstones in the Italian peninsula
10:15 **PASSIER, H.F.**; DEKKERS, M.J.; DE LANGE, G.J.
SE34.3-005 Alteration of magnetic signals in eastern Mediterranean sediments
10:30 BREAK

Chairperson: Özdemir, Ö.
Editor: Hoffmann, V.

11:00 **PREVOT, M.**; KÖRNER, U.
SE34.3-006 Chemical alteration of magnetic minerals in nature and paleointensity experiments on volcanic rocks (Solicited Paper)
11:30 **KÖRNER, U.**; PREVOT, M.; POIDRAS, T.
SE34.3-007 CRM experiments and pseudo-paleointensity measurements on basaltic rocks with initially low Curie temperatures
11:45 VLAG, P.; ALVA, L.; DE BOER, C.; GONZALEZ, S.; URRUTIA, J.
SE34.3-008 Magnetic properties of a Holocene lava flow in central Mexico
12:00 **ZEGERS, T.E.**; DEKKERS, M.J.
SE34.3-009 Remagnetisation of Devonian limestones in the Ardennes in connection with fluid flow and deformation
12:15 HELM, C.M.; **VEROSUB, K.L.**; ZIERENBERG, R.
SE34.3-010 Influence of heavy metal cations on the hysteresis properties of iron-oxyhydroxides
12:30 END OF SUB-SESSION

SE34 Rockmagnetism, palaeomagnetism and environmental magnetism .3 Effect of chemical alteration on magnetization - Poster Session

Convener: Özdemir, Ö.
Co-Convener(s): Roberts, A.P.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairpersons: Özdemir, Ö.; Roberts, A.P.
Editor: Hoffmann, V.

SE247 KOSAREV, V.E.; **ZHARKOV, I.Y.**
SE34.3-011 The cause for secondary chemical magnetization of particoloured rocks of the Tatarian stage
SE248 **JELENSKA, M.**; KAPICKA, A.
SE34.3-012 Preliminary results of chemical remagnetization under uniaxial compression
SE249 **COSTANZO-ALVAREZ, V.**; GAGO, J.L.; WILLIAMS, W.
SE34.3-013 Rock magnetic characterization of a formational contact in Cretaceous strata (eastern Venezuela)
SE250 **ALDANA, M.**; COSTANZO-ALVAREZ, V.; GAGO, J.L.; SUAREZ, N.
SE34.3-014 TSC technique applied to the characterization of sedimentary lithologies at the Pertigalete sequence (northeastern Venezuela)
SE251 **COSTANZO-ALVAREZ, V.**; COLMENARES, L.
SE34.3-015 Lowrie IRM experiments in samples of three oils wells at La Victoria field (southwestern Venezuela)

SE34 Rockmagnetism, palaeomagnetism and environmental magnetism .4 Sediment magnetic records of climatic cycles and events

Convener: Williamson, D.
Co-Convener(s): Geiss, C.E.
Wednesday, 22 April 1998
Lecture Room: R4
Chairperson: Florindo, F.
Editors: Geiss, C.; Williamson, D.

09:00 HELLER, F.
SE34.4-001 Rock magnetism and palaeoenvironment of loess/palaeosol sequences (Solicited Paper)
09:30 **NAWROCKI, J.**; BAKHMUTOV, V.; BOGUCKI, A.; DOLECKI, L.
SE34.4-002 The paleo- and petromagnetic record in the Polish and Ukrainian loess-paleosol sequences
09:45 HUS, J.; **JORDANOVA, D.**; GEERAERTS, R.; EVLOGIEV, J.
SE34.4-003 Palaeomagnetic and rock magnetic properties of a loess-palaeosol sequence in the key section Viatovo (N.E. Bulgaria)
10:00 VLAG, P.; OCHES, E.A.; BANERJEE, S.K.
SE34.4-005 Magnetic concentration variations in loess sequences in central Alaska: reflecting changes in wind directions and intensities?
10:15 **HESLOP, D.**; SHAW, J.; BLOEMENDHAL, J.; LATHAM, A.; PARKER, E.
SE34.4-006 Sub-millennial scale variations in East Asian monsoon systems recorded by dust deposits from the north-western Chinese loess plateau
10:30 **STOCKHAUSEN, H.**; THOUVENY, N.
SE34.4-007 Rockmagnetic properties of Eemian sediments from Lacustrine sections in France: a possible link to climate?
10:45 **GEISS, CH.E.**; BANERJEE, S.K.
SE34.4-008 Climate variability as seen in two interglacial records from the midwestern U.S.A.
11:00 **NOWACZYK, N.R.**; HARWART, S.; MELLES, M.
SE34.4-009 A rock mangetic record from Lama late - northern Siberia
11:15 LUNCH
12:00 Business Meetings

Chairperson: N.N.
Editors: Geiss, C.; Williamson, D.

14:00 **WILLIAMSON, D.**; BARKER, P.A.; JACKSON, M.J.; MARVIN, J.; MERDACI, O.; TAIEB, M.; THOUVENY, N.; VINCENS, A.
SE34.4-010 Rock-magnetic signatures of pedogenesis and climate variability in southern Tanzania (lake Massoko) during the last 35 kyr
14:15 **HU, S.**; APPEL, E.; WANG, S.
SE34.4-011 Incursion of sea water into Gucheng lake detected by magnetic, biologic and chemical data
14:30 **HU, S.**; APPEL, E.; WANG, S.
SE34.4-012 A magnetic study on lake sediments from Zoige basin, eastern Tibetan Plateau, China (Poster)
14:35 **FLORINDO, F.**; ZHU, R.; GUO, B.
SE34.4-013 Palaeorainfall estimation for the last two glacial cycles from the Chinese Loess Plateau: new data (Poster)

14:40 **JELINOWSKA, A.**; TUCHOLKA, P.;
SE34.4-014 BADAUT-TRAUTH, D.
Environmental depending variation of magnetic properties of sediments at Laminae scale (Casplan Sea) (Poster)

14:45 NURGALIEV, D.K.
SE34.4-015 Upper Permian cyclostratigraphy of east Russian plate: orbital periodicity and palaeomagnetic data (Poster)

14:50 MUKHAMADIEV, R.; **NURGALIEV, D.K.**;
SE34.4-016 SHABALIN, N.
Palaeoclimatic changes in magnetic susceptibility record of the Permian clays, east European plate, Russia (Poster)

14:55 **VEROSUB, K.L.**; KARLIN, R.
SE34.4-017 Environmental magnetic record of the late Pleistocene to Holocene transition as recorded at Saanich inlet, Vancouver Island, British Columbia

15:10 THOUVENY, N.; CANDON, L.; DELANGHE, D.;
SE34.4-018 LANCELOT, Y.; MORENO, E.
Climatic and oceanic trends in the last climatic cycle viewed by the rock-magnetic spyglass

15:25 **AVERBUCH, O.**; DECONINCK, J.-F.; PROUST,
SE34.4-019 J.-N.; MAMMOUDIA, M.
High resolution magnetic and mineralogical record of paleoenvironmental changes within the Kimmeridgian-Tithonian formations of the Boulonnais region (northern France)

15:40 **ROSE, TH.**; KRUMSIEK, K.; PORT, G.;
SE34.4-020 HAMBACH, U.
Paleo- and rockmagnetic studies of the Kirchrode cores (Albian, north-west German basin)

15:55 **PORT, G.**; KRUMSIEK, K.; HAMBACH, U.;
SE34.4-021 ROSE, TH.
Orbital forcing of mangetic properties: preliminary results of two ODP sides (North Atlantic, Mediterranean) (Poster)

16:00 **BARTHES, V.**; POZZI, J.P.;
SE34.4-022 VIBERT-CHARBONNEL, P.
High-resolution record of magnetic susceptibility obtained by logging and tuned by orbital frequencies

16:15 MORENO, E.; THOUVENY, N.; CANDON, L.;
SE34.4-023 DELANGHE, D.
Magnetic signatures of Heinrich events since isotopic stage 7 along the Iberian margin (Poster)

16:20 **BECK, L.**; KISSEL, C.; SOHLEID, P.; BOYLE,
SE34.4-024 E.A.
Detailed study of the magnetic properties related to climate variations of core MD95-2034 (Poster)

16:25 LAJ, C.; **KISSEL, C.**; LABEYRIE, L.; LEHMAN,
SE34.4-025 B.
Magnetic grain sizes of North Atlantic sediments spanning the last two climatic cycles (Poster)

16:30 HOFMANN, A.; KIPFSTUHL, J.; KUHN, G.;
SE34.4-026 FUHRER, K.
Rapid climate variations and calving events during the last glacial in the Scotia Sea, Antarctica (Poster)

16:35 END OF SUB-SESSION

SE34 Rockmagnetism, palaeomagnetism and environmental magnetism
.4 Sediment magnetic records of climatic cycles and events - Poster Session

Convener: Williamson, D.
Co-Convener(s): Geiss, C.E.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: RHODES - SE
Editors: Geiss, C.; Williamson, D.

SE252 **HU, S.**; APPEL, E.; WANG, S.
SE34.4-012 A magnetic study on lake sediments from Zoige basin, eastern Tibetan Plateau, China

SE253 **FLORINDO, F.**; ZHU, R.; GUO, B.
SE34.4-013 Palaeorainfall estimation for the last two glacial cycles from the Chinese Loess Plateau: new data

SE254 **JELINOWSKA, A.**; TUCHOLKA, P.;
SE34.4-014 BADAUT-TRAUTH, D.
Environmental depending variation of magnetic properties of sediments at Laminae scale (Casplan Sea)

SE255 NURGALIEV, D.K.
SE34.4-015 Upper Permian cyclostratigraphy of east Russian plate: orbital periodicity and palaeomagnetic data

SE256 MUKHAMADIEV, R.; **NURGALIEV, D.K.**;
SE34.4-016 SHABALIN, N.
Palaeoclimatic changes in magnetic susceptibility record of the Permian clays, east European plate, Russia

SE257 **PORT, G.**; KRUMSIEK, K.; HAMBACH, U.;
SE34.4-021 ROSE, TH.
Orbital forcing of mangetic properties: preliminary results of two ODP sides (North Atlantic, Mediterranean)

SE258 MORENO, E.; THOUVENY, N.; CANDON, L.;
SE34.4-023 DELANGHE, D.
Magnetic signatures of Heinrich events since isotopic stage 7 along the Iberian margin

SE259 **BECK, L.**; KISSEL, C.; SOHLEID, P.; BOYLE,
SE34.4-024 E.A.
Detailed study of the magnetic properties related to climate variations of core MD95-2034

SE260 LAJ, C.; **KISSEL, C.**; LABEYRIE, L.;
SE34.4-025 LEHMAN, B.
Magnetic grain sizes of North Atlantic sediments spanning the last two climatic cycles

SE261 HOFMANN, A.; KIPFSTUHL, J.; KUHN, G.;
SE34.4-026 FUHRER, K.
Rapid climate variations and calving events during the last glacial in the Scotia Sea, Antarctica

SE34 Rockmagnetism, palaeomagnetism and environmental magnetism .5 New challenges in environmental research: magneto-monitoring of anthropic influence to ecosystems

Convener: Scholger, R.
Co-Convener(s): Rochette, P.
Thursday, 23 April 1998
Lecture Room: R4
Chairperson: Rochette, P.
Editor: Rochette, P.

14:00 SE34.5-001 **LEVEQUE, F.**; LECOANET, H.; MATHE, P.-E.; VANDAMME, D.; BEN-ATIG, F.; VERON, A.; AMBROSI, J.-P.
Monitoring of anthropogenic heavy metals accumualted in contaminated soils: potential of magnetic proeprties approach on multisource zone

14:15 SE34.5-002 **VAN OORSCHOT, I.H.M.**; DEKKERS, M.J.
Parameters affecting the dissolution rate of magnetite and maghemite in the CBD extraction technique

14:30 SE34.5-003 **GEORGEAUD, V.M.**; AMBROSI, J.-P.; ROCHETTE, P.; BOTTERO, J.Y.
Heavy metal sorption onto magnetitie: case study of cadmium

14:45 SE34.5-004 SCHOLGER, R.
Standardization of magnetic susceptibility measurements: calibration of laboratory and field instruments (Poster)

14:50 SE34.5-005 **PETROVSKY, E.**; HRABAK, P.; KAPICKA, A.; JORDANOVA, N.
Comparison between magnetic and geochemical mapping of soil contamination in Prague (Poster)

14:55 SE34.5-006 RAKHMATULLIN, R.; **RAVILOVA, N.**
Content of heavy metals and magnetic properties of soils in Kazan, Russia (Poster)

15:00 SE34.5-007 KNAB, M.; APPEL, E.; HOFFMANN, V.
Magnetic measurements for the detection of roadside pollution: distribution of heavy metal contamination (Poster)

15:05 SE34.5-008 **ZERGENYI, R.S.**; HIRT, A.M.; LANCI. L.; LOWRIE, W.; LÜSCHER, P.
Magnetic mapping of soils in Alpine area

15:20 SE34.5-009 **KAPICKA, A.**; PETROVSKY, E.; JORDANOVA, N.; HOFFMANN, V.; ZAPLETAL, K.
Search for atmospherically deposited fly-ash magnetite in soils using magnetic characteristics

15:35 SE34.5-010 **BITYUKOVA, L.**; SCHOLGER, R.; BIRKE, M.
Magnetic susceptibility as indicator of environmental pollution of soils in Tallinn (Estonia)

15:50 SE34.5-011 STRZYSZCZ, Z.; **MAGIERA, T.**
Magnetic suceptibility and lead and zinc concentration in forest topsoil from the border ranges of Poland, Slovakia and Czech Republic

16:05 SE34.5-012 **MAGIERA, T.**; STRZYSZCZ, Z.
Using of magnetic susceptibility measurement as a preliminary method in study of soil pollution in Swierklany district (Katowice Prowince - south Poland)

16:20 SE34.5-013 **HIRT, A.M.**; BÄCHLER, D.; LANCI, L.; ZERGENYI, R.; STURM, M.; LOTTER, A.F.
Magnetic properties and iron cycling for the last 110 years in the Baldeggersee, Switzerland

16:35 SE34.5-014 WIDEMANN, D.; **VEROSUB, K.L.**; MOUNT, J.
Evidence for anthropogenic increase in the flux of ferromagnetic material into the Clear Lake Basin, northern California

16:50 SE34.5-015 MÖRNER, N.-A.
Environmental magnetism: identification of the onset of Iron Ore industry in Sweden

17:05 END OF SUB-SESSION

SE34 Rockmagnetism, palaeomagnetism and environmental magnetism .5 New challenges in environmental research: magneto-monitoring of anthropic influence to ecosystems - Poster Session

Convener: Scholger, R.
Co-Convener(s): Rochette, P.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:30 - 19:00
Poster Area: RHODES - SE
Chairperson: Rochette, P.
Editor: Rochette, P.

SE262 SE34.5-004 SCHOLGER, R.
Standardization of magnetic susceptibility measurements: calibration of laboratory and field instruments

SE263 SE34.5-005 **PETROVSKY, E.**; HRABAK, P.; KAPICKA, A.; JORDANOVA, N.
Comparison between magnetic and geochemical mapping of soil contamination in Prague

SE264 SE34.5-006 RAKHMATULLIN, R.; **RAVILOVA, N.**
Content of heavy metals and magnetic properties of soils in Kazan, Russia

SE265 SE34.5-007 KNAB, M.; APPEL, E.; HOFFMANN, V.
Magnetic measurements for the detection of roadside pollution: distribution of heavy metal contamination

SE34 Rockmagnetism, palaeomagnetism and environmental magnetism .6 Palaeomagnetism and tectonic evolution of the Mediterranean area

Convener: Pares, J.M.
Co-Convener(s): Dinarès-Turell, J.
Thursday, 23 April 1998
Lecture Room: R4
Chairperson: Jelenska, M.

08:30 **SPERANZA, F.**; MATTEI, M.; SAGNOTTI, L.
Structural and paleomagnetic data from the Amantea basin (Calabria, Italy): insights on the geometry of the late Miocene Tyrrhenian rift

08:45 **ROCHETTE, P.**; GIRARD, M.; SPELLA, M.
Tertiary rotation of the Corsica-Sardinia block: new results from southern Corsica volcanics

09:00 **DUERMEIJER, C.E.**; LANGEREIS, C.G.
Timing of Neogene tectonic events in the central Mediterranean: an integrated paleomagnetic study

09:15 **MUTTONI, G.**; LANCI, L.; ARGNANI, A.; ABRAHAMSEN, N.; CIBIN, U.; HIRT, A.M.; LOWRIE, W.
Paleomagnetism in the northern Apennines, Italy

09:30 KRS, M.; KRSOVA, M.; PRUNER, P.; MAN, O.; VENHODOVA, D.
Geodynamic evolution of Permian to Neogene rock formations in the W. Carpathians based on summary of previously and recently derived palaeomagnetic data

09:45 **MARTON, E.**; MARTON, P.; PAMIC, J.
A puzzling piece of the Pannonian puzzle: Tertiary paleomagnetic results from the W part of the Tisza-Dacia megaunit

10:00 **HAUBOLD, H.**; MAURITSCH, H.J.
Paleomagnetism of Jurassic sediments from the Fore-Balkan and the Stara Planina Ranges (NW Bulgaria) (Solicited Paper)

10:30 BREAK

Chairperson: N.N.

11:00 **JELENSKA, M.**; BAHMUTOV, V.; KONSTANTINENKO, L.
New paleomagnetic data from Silurian succession of the Dniestr Basin Ukraina

11:15 **ÖZCEP, F.**; ORBAY, N.
Preliminary paleomagnetic results on the Neogene volcanism of Afyon region (central Anatolia)

11:30 **RON, H.**; SHAMIR, G.
Paleomagnetic test for continuous crustal deformation across the southern Dead Sea transform

11:45 PUEYO-MORER, E.L.; PARES, J.M.; MILLAN-GARRIDO, H.; POCOVI-JUAN, A.
Oblique thrust ramps and spurious apparent rotations on paleomagnetic analysis

12:00 **LEWCHUK, M.**; HENRY, B.; ROUVIER, H.; MACQUAR, J.; LEACH, D.
Paleomagnetism of Mississippi valley-type mineralization in southern France and Cenozoic orogenesis

12:15 **YELLES, A.**; DERDER, M.; SMITH, B.; BAYOU, B.; HENRY, B.; DJELLIT, H.
Preliminary results of the palaeomagnetic study of a Namurian formation from the Ahnet basin (Saharan Craton, Algeria)

12:30 **SMITH, B.**; BAYOU, B.; DERDER EL MESSAOUD, M.; HENRY, B.; YELLES-CHAOUCHE, A.; DJELLIT, H.
Tectonic history of the dolerites from the Reggane basin (Algeria) as evidenced by the paleomagnetism

12:45 PUEYO-MORER, E.L.; MILLAN-GARRIDO, H.; POCOVI-JUAN, A.
Temporal and spatial variability of the degree of rotation in the Jaca basin (southern Pyrenees) deduced from structural and paleomagnetic analysis

13:00 END OF SUB-SESSION

Geophysical Journal International

Journal of Geodynamics

Tectonics

the three EGS journals for the Section on Solid Earth Geophysics for the publication of your contribution to the 23rd General Assembly

---

SE34 Rockmagnetism, palaeomagnetism and environmental magnetism
.6 Palaeomagnetism and tectonic evolution of the Mediterranean area - Poster Session

Convener: Pares, J.M.
Co-Convener(s): Dinarès-Turell, J.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE

SE266 AVIGAD, D.; BAER, G.; HEIMANN, A.
Block rotations and continental extension in the central Aegean Sea (Tinos and Mykonos islands)

SE267 EDEL, J.B.
Pre- and post-folding magnetizations in the Plan-de-la-Tour volcano-sedimentary syncline (Maures, S. France). Late Variscan evolution of the western Mediterranean basement

SE268 KECHRA, F.; VANDAMME, D.; ROCHETTE, P.; CHOUKROUNE, P.
Remagnetisation and tectonic analyses on Cevennes fault

SE269 COSENTINO, D.; CIPOLLARI, P.; **FLORINDO, F.**
Milankovitch periodicities recorded in an upper miocene sequence from central Apennines, Italy

SE270 HOUSA, V.; KRS, M.; PRUNER, P.; MAN, O.; VENHODOVA, D.; CECCA, F.; NARDI, G.; PISCITELLO, M.
Correlation of high-resolution magnetostratigraphic and micropalaeontological data across the J/C boundary strata in Brodno (W. Carpathians, W. Slovakia) and the Bosso Valley (Umbria, central Italy)

SE35 Archaeology and archaeomagnetism
.1 Archaeological prospection

Convener: Schmidt, A.
Co-Convener(s): Fassbinder, J.
Monday, 20 April 1998
Lecture Room: R11
Chairperson: Schmidt, A.

14:00 ORBONS, P.J.
Geophysical support in large scale archaeological prospections, recent case-studies and research (Solicited Paper)

14:30 MARMET, E.; BINA, M.; FEDOROFF, N.; TABBAGH, A.
Relationship between anthropisation and the magnetic properties of soils

14:45 **PIRO, S.**; PIERDICCA, N.
Analysis of GPR pulse response from experimental and archaeological test sites

15:00 **NEUBAUER, W.**; EDER-HINTERLEITNER, A.; MELICHAR, P.
Improvements in high resolution archaeological magnetometry

15:15 **BECKER, H.; FASSBINDER, J.**
Cesium magnetometry for large area prospection at Qantir-Piramesse (Egypt)

15:30 RABBEL, W.; BRUECKNER, H.; BRUHN, C.; STUEMPEL, H.; WOELZ, S.
The ancient lion harbour of Miletus: geophysical investigations

15:45 KOPPELT, U.; ABRAHAMSEN, N.; DITTRICH, G.; HIRSEKORN, V.; JACOBSEN, B.H.; SMEKALOVA, T.; VOSS, O.
Techniques applied to magnetic investigation of iron-production sites in central Europe

16:00 BASILE, V.; CARROZZO, M.T.; NEGRI, S.; NUZZO, L.; QUARTA, T.; VILLANI, A.V.
Combined GPR and seismic investigations in urban area (Lecce - Italy)

16:15 LORRA, S.; STÜMPEL, H.; THOMSEN, D.
2D and 3D interpretation techniques of GPR data in archaeological prospection

16:30 BREAK

Chairperson: Orbons, P.J.

17:00 **SCHMIDT, A.**; VERNON, R.; MCDONNELL, G.
Advanced magnetometry for the characterisation of early iron-working sites

17:15 LÜCK, E.; EISENREICH, M.
Geophysical prospections of archaeological sites in Brandenburg

17:30 PETERS, C.
Quantification of superparamagnetism within lewisian archaeological soils

17:45 **EDER-HINTERLEITNER, A.**; SEREN, S.; NEUBAUER, W.
An approach on 3D archaeological interpretation of ground penetrating radar data

18:00 **HERWANGER, J.**; MAURER, H.; LECKEBUSCH, J.; GREEN, A.
Processing and inversion of magnetic gradient data in archaeological prospecting

18:15 **COSKUN, N.**; CERTEL, R.
Direct interpretation of combined sounding-profiling data

18:30 **MRLINA, J.**; TEALEB, A.A.; ISSAWY, E.A.M.; RADWAN, A.H.A.; HASSAN, G.S.; SAKR, K.O.
Microgravimetric investigations in the vallyes of the Kings and Queens, Luxor, Egypt

18:45 END OF SUB-SESSION

19:30 Reception

SE35 Archaeology and archaeomagnetism .1 Archaeological prospection - Poster Session

Convener: Schmidt, A.
Co-Convener(s): Fassbinder, J.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairperson: Fassbinder, J.

SE271 **BATT, C.**; DOCKRILL, S.
Integrating magnetic measurements with archaeological data

SE272 FECHANT, C.; DAVID, C.; DORIGNY, A.; NEGRO, G.; NAIZET, F.
Magnetic, electric, radioactivity and thermal infrared imaging for interpretation of archaeological deposits stratigraphy

SE273 JACOBSEN, B.H.; KOPPELT, U.; ABRAHAMSEN, N.
Interactive inverse modelling of magnetic dipole clusters and archaeometry of iron age slags

SE274 **MARUKAWA, Y.**; KAMEI, H.; SAITO, M.
Estimation of systematic errors of 3-component geomagnetic data using the ABIC-minimization method

SE275 **PEREZ GARCIA, V.**; PUJADES, L.; CANAS, J.A.; CLAPES, J.; OSORIO, R.
Analysis of the change in the velocity of the electromagnetic waves with the water content

SE276 DITTRICH, G.; KOPPELT, U.; LANGE, J.M.; WUYTACK, K.
Top soil conditions and detectability of archaeological objects

SE277 DITTRICH, G.; KOPPELT, U.
Three-dimensional reconstruction of archaeological features using geomagnetic data

SE278 EL ERAKI, M.
Archaeological interpretation of magnetic data

SE279 SLEPAK, Z.
Geophysics for archaeological purposes on the territory of Kazan Kremlin, Kazan, Russia

SE280 **COSKUN, N.**; SZYMANSKI, J.E.
A discussion on the resolution of two dimensional resistivity modelling

SE281 **MORI, M.**; KAMEI, H.; NAKAI, M.; KUDO, H.
A high density resistivity survey and an experimental measurement of temperatures of the ground on Hirui-Otsuka mounded tomb in Ogaki, Japan

SE282 NEUBAUER, W.; **EDER-HINTERLEITNER, A.**; MELICHAR, P.
Geomagnetic prospection of an early neolithic settlement in Asparn/lower Austria

SE35 Archaeology and archaeomagnetism .2 Archaeomagnetism and secular variations

Convener: Kovacheva, M.
Co-Convener(s): Chauvin, A.
Monday, 20 April 1998
Lecture Room: R11
Chairperson: Chauvin, A.

08:30 **BATT, C.**; MENG, Z.; NOEL, M.
New archaeomagnetic studies in China and their use in elucidating geomagnetic secular variations

08:45 **YANG, S.**; SHAW, J.; DAGLEY, P.
Updated geomagnetic dipole for the period 0-12,000 years

09:00 SHAW, J.
Microwave archaeointensity results from Egyptian ceramics

09:15 BAAG, C.
Two new archaeomagnetic records from South Korea

09:30 LIGHT, J.P.; **VEROSUB, K.L.**; MEHRINGER JR., P.J.
Fine-tuning the palaeosecular variation record from Fish Lake, Oregon, with archaeomagnetic results from the nearby Lost Dunes archaeological site

09:45 **MAURITSCH, H.J.**; SCHOLGER, R.
Historic melting places; source of paleofield information
10:00 **SCHNEPP, E.**; PUCHER, R.
A German archaeomagnetic secular variation curve from 1000 to 1800 AD
10:15 **KOVACHEVA, M.**; GERGOVA, D.; JORDANOVA, N.; KIROV, V.
Secular geomagnetic variations and dating of the archaeological remains
10:30 BREAK

Chairperson: Shaw, J.

11:00 PELLETIER, J.D.
Power-spectral analysis of archeomagnetic and secular variations
11:15 **KOVACHEVA, M.**; CHAUVIN, A.; JORDANOVA, N.; KARLOUKOVSKI, V.; GARCIA, J.
Interlaboratory comparison of archaeo-intensity study and anisotropy effect
11:30 **LENGYEL, S.**; EIGHMY,J.
Assessment of the moving window method of secular variation curve construction: analysis of the Blindman problem
11:45 LANOS, PH.
Bayesian approach using penalized maximum likelihood to smoothing time series carring errors both on time and measure: consequences for archaeomagnetism
12:00 LE GOFF, M.; KOVACHEVA, M.; LANOS, P.; DALY, L.
Comparison of three smoothing algorithms performed on the eight millennium archeomagnetic data from Bulgaria
12:15 **JENG, Y.**; CHEN, K.-J.
Geomagnetic evidence for the time-selecting concept of ancient Chinese health promotion
12:30 EVANS, M.; **KONDOPOULOU, D.**; SPATHARAS, V.; AIDONA, E.
Archaeomagnetic dating in Macedonian kilns (N. Greece)
12:45 TARLING, D.
Developments in the global archaeomagnetic directional database *
13:00 END OF SUB-SESSION
17:00 Opening
19:30 Reception

SE35 Archaeology and archaeomagnetism .2 Archaeomagnetism and secular variations - Poster Session

Convener: Kovacheva, M.
Co-Convener(s): Chauvin, A.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE

SE283 ZANELLA, E.; GURIOLI, L.; CIARALLO, A.; CIONI, R.; **LANZA, R.**
Comparison between remanent magnetizations ov Vesuvius pyroclastities of 79 A.D. and Pompei mural paintings

SE36 Potential fields in geodesy, geophysics and geology (co-sponsored by G) I

Convener: Jacoby, W.R.
Co-Convener(s): Braitenberg, C.; Grafarend, E.W.
Tuesday, 21 April 1998
Lecture Room: HERMES
Chairperson: N.N.

Global gravity field, geodesy, geodynamics, rotation: Earth and planets

11:00 **PELTIER, W.R.**; PARI, G.
Mantle viscosity, glacial isostary and the anomalous gravity field (Solicited Paper)
11:30 **DENIS, C.**; ROGISTER, Y.; TOMECKA-SUCHON, S.
How large is the non-hydrostatic part of the geopotential coefficient C_{20}?
11:45 VARGA, P.
Temporal variation of second degree geopotential
12:00 **KAKKURI, J.**; WANG, Z.
Influences of the variations in the shape, size, and mass distribution on the global and local gravity field of the Earth
12:15 TOMECKA-SUCHON, S.; **DENIS, C.**; ROGISTER, Y.
On incremental stresses caused by tides, variable rotation rate or surface mass loads, and earthquake triggering
12:30 BEGHEIN, C.; TOMECKA-SUCHON, S.; **DENIS, C.**; ROGISTER, Y.; VARGA, P.
Palaeorotation and changes in time of the Earth's internal structure
12:45 **VERMEERSEN, L.L.A.**; SABADINI, R.
Theory of post-seismic deformation and gravity potential field
13:00 LUNCH

Chairperson: N.N.

14:00 **SOLDATI, G.**; PIERSANTI, A.; BOSCHI, E.
Global postseismic deformation: effects on the gravity field
14:15 DONG, D.; **DICKEY, J.O.**; CHAO, Y.; CHENG, M.K.
Comparison of observed geocenter variations with model predictions
14:30 **ROGISTER, Y.**; AMALVICT, M.; TOMECKA-SUCHON, S.; DENIS, C.
On core modes
14:45 COX, C.M.; PERINI, J.P.; LEMOINE, F.G.; NEREM, R.S.
Goddard Venus gravity model development including the appllication of alternate solution constraint techniques
15:00 **BALLANI, L.**; STROMEYER, D.; GREINER-MAI, H.
On the structure of the magnetic field at the core-mantle boundary (Poster)

Analysis, inversion and general treatment of potential field data

15:05 MARTINEC, Z.
The role of magnetic vector potential in 2-D electromagnetic induction in a spherical Earth

15:20 WEBERS, W.
On applying the regularization WIGCONT to potential field downward continuation - consequences
15:35 **JACOBY, W.R.**; SMILDE, P.
Deriving gravity field parameters from terrestrial gravity measurements
15:50 STRAKHOV, V.N.; **SCHÄFER, U.**; STRAKHOV, A.V.
Regional approximations of the gravity anomaly field in central and northern Europe
16:05 FEDI, M.; FLORIO, G.; RAPOLLA, A.
A method to determine the excess mass and the magnetic moment from potential field anomalies
16:20 HOLOTA, P.
An effective mass distribution among sources of the external gravity field
16:35 BRAITENBERG, C.; ZADRO, M.
The spectral evaluation of the gravitational potential field and its derivatives: the SE-Alps as an example
16:50 END OF PART I

SE36 Potential fields in geodesy, geophysics and geology (co-sponsored by G) - Poster Session

Convener: Jacoby, W.R.
Co-Convener(s): Braitenberg, C.; Grafarend, E.W.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE

SE285 **BALLANI, L.**; STROMEYER, D.; GREINER-MAI, H.
On the structure of the magnetic field at the core-mantle boundary
SE286 **COHEN, Y.**; PURUCKER, M.
Introducing long wavelenthes in global magnetization models to delineate age provinces
SE287 DANCKWARDT, E.; JACOBS, F.
A rapid method on three-dimensional electrical resistivity
SE288 RITTER, S.
On integral operators of potential theory and its applications
SE289 **AKYOL, N.**; PINAR, R.
Analysis of gravity data with 3-D Hilbert transformation
SE290 ANKAYA, O.; AKDEMIR, Ö.; AKCIG, Z.; PINAR, R.
Application of the Hilbert transform and power spectra in the potential fields
SE291 SMILDE, P.L.
Non-linear gravity inversion incorporating both density and geometric parameters
SE292 BILIARSKA, R.; ZHELEV, ZH.; BILIARSKA, I.
On the solution of the inverse problems of potential fields with an optimal ortogonal prism
SE293 PINTO, V.; RIVERO, L.; CASAS, A.
An interactive 2D and 3D gravity modelling programme for personal computers
SE294 MLADENOVIC, M.; **SMILJANIC, N.**
Study of ultramfic belts in inner Dinarides and Vardar zone
SE295 KUBLER, L.; BERGMAN, S.; MARTINSSON, O.
A synthesis of the geology and geophysics of the northern Norrbotten ore province, Sweden
SE296 RUOTOISTENMAKI, T.
Midnorden project, geophysics sub-project: combined geophysical maps of Central and Northern Fennoscandia and their applications in ore prospecting and tectoninc analysis
SE297 O'REILLY, B.M.; READMAN, P.W.; MURPHY, T.
Gravity patterns and carboniferous base-metal ore deposits in Ireland
SE298 **REEH, G.A.**; HASSAN, H.
Geophysical investigations into the deep structure of Mamoura area, offshore Libya
SE299 KAMINSKY, V.D.; PISKAREV, A.L.; POSELOV, V.A.
The Earth crust structure in the continent-ocean transition zone according to potential field data interpretation in Arctic
SE300 **MRLINA, J.**; SPICAK, A.
Changes of gravity in relation to other geodynamic phenomena in western Bohemia

SE36 Potential fields in geodesy, geophysics and geology (co-sponsored by G) II

Convener: Jacoby, W.R.
Co-Convener(s): Braitenberg, C.; Grafarend, E.W.
Wednesday, 22 April 1998
Lecture Room: GALLIENI 5
Chairperson: N.N.

09:00 BULAKH, E.; MARKOVA, M.; YAKYMCHUK, N.
A solution of inverse problem of potential in the class of star bodies
09:15 FEDI, M.; LENARDUZZI, L.; PRIMICERI, R.; QUARTA, T.
Localized wavelet denoising of potential field data
09:30 YAKYMCHUK, N.; YAKYMCHUK, Y.
The new approach to recounting of potential fields
09:45 YAKYMCHUK, M.; YAKYMCHUK, Y.; CHERNY, A.; KORCHAGIN, I.; KOZLENKO, Y.
The interpretation of geoid anomalies by an automated fitting method
10:00 **PAPP, G.**; BENEDEK, J.
Numerical determination of field lines in gravitational space
10:15 STRYKOWSKI, G.
Mapping gravi-equipotential surfaces inside masses by direct use of Newtons integral
10:30 **COHEN, Y.**; PURUCKER, M.
Introducing long wavelenthes in global magnetization models to delineate age provinces (Poster)
10:35 DANCKWARDT, E.; JACOBS, F.
A rapid method on three-dimensional electrical resistivity (Poster)
10:40 RITTER, S.
On integral operators of potential theory and its applications (Poster)
10:45 **AKYOL, N.**; PINAR, R.
Analysis of gravity data with 3-D Hilbert transformation (Poster)

10:50 ANKAYA, O.; AKDEMIR, Ö.; AKCIG, Z.; PINAR, R.
Application of the Hilbert transform and power spectra in the potential fields (Poster)
10:55 SMILDE, P.L.
Non-linear gravity inversion incorporating both density and geometric parameters (Poster)
11:00 BILIARSKA, R.; ZHELEV, ZH.; BILIARSKA, I.
On the solution of the inverse problems of potential fields with an optimal ortogonal prism (Poster)
11:05 PINTO, V.; RIVERO, L.; CASAS, A.
An interactive 2D and 3D gravity modelling programme for personal computers (Poster)

Geological and tectonic problems, isostasy, case histories

11:10 MARSON, I.; PANZA, G.; **VELICOGNA, I.**
Gravity and geoid data for the validation of a 3-D structural model of European region
11:25 **JAHR, TH.**; JENTZSCH, G.; GABRIEL, G.; MELZER, J.
Gravity and geodynamic investigations of the Harz mountains/Germany from 1991 to 1997
11:40 LUNCH
12:00 Business Meetings

Chairperson: N.N.

14:00 **KOUTINOV, I.G.**; TCHISTOVA, Z.B.
Potential fields - important indicators of geodynamic setting of ancient structures of Earth's crust?
14:15 GUDMUNDSSON, M.T.
The structure and thermal state of active volcanic centres in Iceland studied with gravity and magnetics
14:30 **RYZHYI, B.P.**; BELLAVIN, O.V.; NACHAPKIN, N.I.
About connection of mantle and crust in lithosphere of the Urals
14:45 WANG, Z.
The crustal structure and the geoid in the Fennoscandian Shield
15:00 **ABOU HELEKIA, M.M.**; MAURITSCH, H.J.; SETTO, I.; SENDLHOFER, G.P.; EL-SHEMI, A.M.
Delineation of sedimentary basins and crustal thickness in El Minia - Assiut area, Egypt by using 3-D gravity and 2.5-D magnetic modelling
15:15 EL ERAKI, M.
Depocenters in north Egypt approved from potential field data
15:30 **RABAE, A.M.**; ABUHAJAR, M.I.
The geological interpretation of a magnetic anomaly in the continental shelf of NW offshore Libya
15:45 **BESUTIU, L.**; NICOLESCU, A.; CRISTEA, P.; STANCHEVICI, B.
Combined geophysical research within north Dobrogea Orogene, Romania
16:00 MLADENOVIC, M.; **SMILJANIC, N.**
Study of ultramfic belts in inner Dinarides and Vardar zone (Poster)
16:05 KUBLER, L.; BERGMAN, S.; MARTINSSON, O.
A synthesis of the geology and geophysics of the northern Norrbotten ore province, Sweden (Poster)
16:10 RUOTOISTENMAKI, T.
Midnorden project, geophysics sub-project: combined geophysical maps of Central and Northern Fennoscandia and their applications in ore prospecting and tectoninc analysis (Poster)
16:15 O'REILLY, B.M.; READMAN, P.W.; MURPHY, T.
Gravity patterns and carboniferous base-metal ore deposits in Ireland (Poster)
16:20 **REEH, G.A.**; HASSAN, H.
Geophysical investigations into the deep structure of Mamoura area, offshore Libya (Poster)
16:25 KAMINSKY, V.D.; PISKAREV, A.L.; POSELOV, V.A.
The Earth crust structure in the continent-ocean transition zone according to potential field data interpretation in Arctic (Poster)
16:30 **MRLINA, J.**; SPICAK, A.
Changes of gravity in relation to other geodynamic phenomena in western Bohemia (Poster)
16:35 END OF SESSION

SE37 Regional magnetic surveys: data, models and charts - Poster Session

Convener: Best, A.
Co-Convener(s): Chiappini, M.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE
Editors: Chiappini, M.; Best, A.

SE353 KARATAEV, G.; KARAGODINA, O.;
SE37-016 **SAS-UHRYNOWSKI. A.**; MROCZEK, S.
Establishment of magnetic secular variation network in Belarus
SE354 DEMINA, M.; KASYANENKO, L.G.;
SE37-017 **SAS-UHRYNOWSKI, A.**; WELKER, E.
Magnetic atlas of the Baltic Sea
SE355 KHARITONOV, A.L.; ODINTSOV, S.D.;
SE37-018 **ROTANOVA, N.M.**; TSVETKOV, YU.P.
Magsat magnetic anomaly fields for Europe and Asia
SE356 **AHMED, F.M.**; DEEBES, H.
SE37-019 Magnetic survey of Ras Gharib area in Egypt for petroleum exploration
SE357 **MIHAIJLOVIC, J.S.**; POPESKOV, D.;
SE37-020 OBRADOVIC, M.
IGFR model and geomagnetic repeat station surveys in Yugoslavia
SE358 **SAILHAC, P.**; GALDEANO, A.; GIBERT, D.;
SE37-021 MOREAU, F.; DELOR, C.
Magnetic sources characterization in Guyana infered from aeromagnetic data analysed with continuous wavelets

SE37 Regional magnetic surveys: data, models and charts

Convener: Best, A.
Co-Convener(s): Chiappini, M.
Friday, 24 April 1998
Lecture Room: R2
Chairperson: Chiappini, M.
Editor: Chiappini, M.

08:30 DE SANTIS, A.; TORTA, J.M.
SE37-001 Ordinary and spherical cap harmonics and an integral matrix-based approach for modelling regional magnetic data (Solicited Paper)

09:00 **KORTE, M.**; BEST, A.; HAAK, V.
SE37-002 Magnetic anomalies and secular variation in central Europe
09:15 **ROESER, H.A.**; SCHULZ, G.; BEBLO, M.
SE37-003 Comparison of observed secular variationwith the changes of the IGRF in Germany
09:30 BESUTIU, L.
SE37-004 On the normal geomagnetic field (NGF). Modelling and understanding
09:45 ALEXANDRESCU, M.; BERGER, J.; **BEST, A.**;
SE37-005 DUMA, G.; FREDOW, M.; HEJDA, P.; HORACEK, J.; SAS-UHRYNOWSKI, A.; ZOLTOWSKI, Z.
Coordinated magnetic repeat station survey in Europe
10:00 ALEXANDRESCU, M.
SE37-006 Half-century of magnetic repeat stations measurements in France
10:15 **KÖRMENDI, A.**; ALEXANDRESCU, M.; LE
SE37-007 MOUEL, J.-L.; RASMUSSEN, O.
Initial results from analysis of periodic and secular variation by LabVIEW + HiQ
10:30 BREAK

Chairperson: Best, A.
Editor: Best, A.

11:00 WEBERS, W.
SE37-008 On determining reference fields from ground-based and satellite field data
11:15 **BICSKEI, T.**; HASKIC, A.
SE37-009 Geomagnetic field on the territory of Yugoslavia for the epoch 1995.5
11:30 **ROTANOVA, N.M.**; KHARITONOV, A.L.
SE37-010 Spectral analysis of the Magsat geomagnetic field
11:45 **ROTANOVA, N.M.**; TSVETKOV, YU.P.
SE37-011 Aerostatic surveys of the geomagnetic field at the stratospheric altitudes
12:00 **AHMED, F.M.**; DEEBES, H.
SE37-012 Magnetic survey of the area northwest of El-Quseir-Egypt
12:15 **AHMED, F.M.**; DEEBES, H.
SE37-013 Magnetic survey of wadi Natrun area northwest of Cairo - Egypt
12:30 **WOLDETINSAE, G.**; RAM BABU, H.V.
SE37-014 Aeromagnetic study near Gadarwara area, and its implication in the Narmada-Son Lineament (NSL), India
12:45 GREEN, A.W.; **HEGYMEGI, L.**; KÖRMENDI, A.;
SE37-015 PANKRATZ, L.W.; SAUTER, E.A.
A fast delta "I" delta "D" system for measurement of geomagnetic elements
13:00 KOREPANOV, V.; KLYMOVYCH, E.
SE37-022 Data quality of regional magnetic survey
13:15 END OF SESSION

Attend the Business Meeting of your Section

on Wednesday, 22 April, 12.00-14.00, Lecture Room R10

SE38 Long term global geophysical data products from remote sensing

Convener: Arino, O.
Co-Convener(s): Kerr, Y.H.
Thursday, 23 April 1998
Lecture Room: R1
Chairperson: Kerr, Y.H.
Editors: Kerr, Y.H.; Arino, O.

14:00 BUONGIORNO, A.; ARINO, O.; MELINOTTE,
SE38-001 J.-M.
The "global land land 1km AVHRR data set" project: ESA activities in data collection, processing and distribution
14:15 **KERR, Y.H.**; GUILLOU, C.; LAGOUARDE, J.P.;
SE38-002 NERRY, F.; OTTLE, C.; ARINO, O.
Global land surface temperature retrieval from NOAA AVHRR data
14:30 ARINO, O.; MELINOTTE, J.-M.; BUONGIORNO,
SE38-003 A.
World Fire Atlas with AVHRR and ATSR data
14:45 **SOBRINO, J.A.**; RAISSOUNI, N.
SE38-004 Methods for land cover dynamics monitoring using the global land 1-km project AVHRR data. Application to Morocco
15:00 **ACHARD, F.**; MAYAUX, P.; EVA, H.; JANVIER,
SE38-005 P.
Production of tropical forest ditribution maps using remote sensing data at a global scale
15:15 **BERTHELOT, B.**; KERGOAT, L.; CABOT, F.;
SE38-006 DEDIEU, G.; MAISONGRANDE, P.
LASUR: the land surface reflectance data for 1989-1990
15:30 **WEISS, M.**; BARET, F.
SE38-007 What are the canopy biohpysical variables that can be estimated from large swath stallite data?
15:45 **CALADO, T.J.**; DACAMARA, C.C.;
SE38-008 CORTE-REAL, J.
An operational scheme for cloud classification over land using METEOSAT imagery
16:00 **RIGOLLIER, C.**; WALD, L.
SE38-009 Mapping solar radiation from Meteosat images with the improved Heliosat method
16:15 END OF SESSION

SE39 Physical properties of geomaterials
.1 Open session on physical properties of geomaterials - Poster Session

Convener: Urai, J.L.
Co-Convener(s): Huenges, E.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: RHODES - SE

SE377 MAJ, S.
Electronic properties of minerals related to the Earth's lower mantle
SE378 **KOHLBECK, F.**; SZARKA, L.; WESZTERGOM, V.; JELINOWSKA, A.; MENVIELLE, M.; TUCHOLKA, P.; SCHOTT, J.J.
Limiations in identification of lake sediment layers by using precise geoelectric soundings

SE379 **TRICIO, V.**; VILORIA, R.; RODRIGUEZ, L.; GONZALEZ, I.
Comparative values for environmental parameters in a historical building

SE380 GLIKO, A.O.; PARSEGOV, D.V.; VANYAN, L.L.
Modelling transport properties of crustal rocks during prograde metamorphic events

SE381 **TENTLER, T.**; MULUGETA, G.
Stile of buckles in analogue "rocks" with different rheologies

SE382 STORELVMO, L.; JELMERT, T.A.; MIDDLETON, M.F.
Numerical simulation of the tidal effect

SE383 DIAUR, N.I.
Variation in elastic anisotropy in rocks deformed under high pressure and uniaxial compression

SE384 **KULENKAMPFF, J.**; JUST, A.; FLECHSIG, C.; JACOBS, F.
Measurements of diffusion in unconsolidated clays with the aid of resistivity tomography

SE385 **BOS, B.**; SPIERS, C.J.; PEACH, C.J.
Influence of chemically active fluids on fault slip

SE386 **BOUROVA, E.**; PARKER, S.C.; RICHET, P.
Atomistic simulation of quartz and cristobalite at high temperature

SE387 TATARINOV, V.N.
The dynamics of spatial - temporal variations of physical fields and structure in rocks massifs

SE388 **DIETRICH, M.**; MARQUIS, G.; STOPIN, A.; CHAFFARD, V.; GARAMBOIS, S.; GUIGUET, R.; BARSUKOV, P.
Geophysical investigations of the Cléry fault, Vercors, France

SE389 **ITO, H.**; FUJIMOTO, K.; OHTANI, T.; TANAKA, H.; HIGUCHI, T.; TOMIDA, N.; AGAR, S.M.
Alteration and mass transfer alogn the GSJ borehole penetrating the Nojima earthquake fault

SE390 **STEWART, M.**; HOLDSWORTH, R.E.; IMBER, J.
Weakening processes within continental fault zones

SE391 **SPIEGELBERG, H.**; STORZ, W.; FLECHSIG, CH.; JACOBS, F.
DC-geoelectrical deep soundings in combination with modern inversion technologies: a tool to investigate geological structures

SE391A **KIREENKOVA, S.M.**; EFIMOVA, G.A.
The anomal changes of the physical parameters of clinopyroxenes at high pressures

SE391B **EFIMOVA, G.A.**; KIREENKOVA, S.M.
Informativity of microstructural investigations of rocks under high PT-conditions for study of processes of earthquakes preparation

SE391C VLASOV, Y.T.; INGEROV, A.I.; KUSCH, O.
Electromagnetic techniques for fault zones mapping

Attend the Poster Session

SE39 Physical properties of geomaterials .2 Imaging, analysing and modelling pore structure in geomaterials

Convener: David, C.
Co-Convener(s): Olgaard, D.L.; Rodriguez Rey, A.
Thursday, 23 April 1998
Lecture Room: R11
Chairperson: Anselmetti, F.
Editors: David, C.; Olgaard, D.L.; Rodriguez Rey, A.

09:00 FREDRICH, J.T.
SE39.2-001 3D imaging of porous media and application to microscale modelling of transport properties (Solicited Paper)

09:30 DAVIDSON, G.; **PETFORD, N.**; MILLER, J.A.
SE39.2-002 Visualisation of pore structure geometry using confocal scanning laser microscopy

09:45 **THOVERT, J.-F.**; SPANNE, P.; JACQUIN, C.G.; ADLER, P.M.
SE39.2-003 Multiscale characterization of the geometrical and transport properties of a Fontainebleau sandstone from microtomographic imaging

10:00 GOEBBELS, J.; **HELLMUTH, K.-H.**; KLOBES, P.; MEYER, K.; SIITARI-KAUPPI, M.
SE39.2-004 Imaging and analyzing rock porosity by autoradiography and HG-porosimetry/computertomography

10:15 **ZANG, A.**; WAGNER, F.C.; STANCHITS, S.; DRESEN, G.
SE39.2-005 Fracture source mapping in deformed granite by advanced acoustic emission and X-ray tomography

10:30 **MONTEMAGNO, C.D.**; PYRAK-NOLTE, L.J.
SE39.2-006 Fracture network versus single fractures: measurement of fracture geometry with X-ray tomography

10:45 BREAK

Chairperson: Rodriguez Rey, A.
Editors: David, C.; Olgaard, D.L.; Rodriguez Rey, A.

11:15 EHRLICH, R.
SE39.2-007 Strong relationships between image data and sandstone physical properties (Solicited Paper)

11:45 **BELIN, S.**; ANGUY, Y.; BERNARD, D.; FERM, J.B.; FRITZ, B.
SE39.2-008 Modelling physical properties of sandstone reservoirs by blending 2D image analysis data with 3D capillary pressure data

12:00 **ANGUY, Y.**; BERNARD, D.
SE39.2-009 Is it possible to characterize the geometry of a real porous medium by a direct measurement on a finite section?

12:15 **ANSELMETTI, F.S.**; LUTHI, S.; EBERLI, G.P.
SE39.2-010 Quantitative characterization of carbonate pore systems by digital image analysis

12:30 LUNCH

Chairperson: Olgaard, D.L.
Editors: David, C.; Olgaard, D.L.; Rodriguez Rey, A.

14:00 SOLYMAR, M.
SE39.2-011 Image analysis, and estimation of porosity and permeability of Arnager Greensand, upper Cretaceous, Denmark

14:15 LINDQUIST, W.B.
SE39.2-012 Investigating three dimensional geometry of porous media from high resolution images

14:30 **SAMMARTINO, S.**; PATRIER, P.; SARDINI, P.; MEUNIER, A.; TEVISSEN, E.
SE39.2-013 Alteration influence on microporosity connectivity of Charroux-Civray tonalite

14:45 HROUDA, F.; HANAK, J.; TERZIJSKI, I.
SE39.2-014 Pore fabrics of ceramic models investigated by magnetic anisotropy

15:00 **O'CONNOR, R.M.**; FREDRICH, J.T.; STOCKMAN, H.W.
SE39.2-015 Microscale flow modelling in geologic materials

15:15 DU PLESSIS, J.P.
SE39.2-016 Introducing a percolation threshhold in pore-scale modelling

15:30 **SARDINI, P.**; SAMMARTINO, S.; MOREAU, E.
SE39.2-017 Simulation of 2D granite crack systems from image analysis and sterological data

15:45 **ZIMMERMANN, G.**; BURKHARDT, H.
SE39.2-018 Fluid pathways in crystalline rock

16:00 LADD, A.F.; **BLAIR, S.**
SE39.2-019 3-D deformation analysis based on high resolution X-ray tomographs

16:15 END OF SESSION

SE39 Physical properties of geomaterials .2 Imaging, analysing and modelling pore structure in geomaterials - Poster Session

Convener: David, C.
Co-Convener(s): Olgaard, D.L.; Rodriguez Rey, A.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairperson: Zang, A.H.
Editors: David, C.; Olgaard, D.L.; Rodriguez Rey, A.

SE392 MENENDEZ, B.; **DAVID, C.**; DAROT, M.
SE39.2-020 Laser confocal microscopy study of the 3-D crack network of mechanically and thermally deformed granite samples

SE393 **RAYNAUD, S.**; DESRUES, J.; GURAUD, Y.; MAZEROLLE, F.; TILLARD, D.
SE39.2-021 Evidence of the material nature influence on the brittle rupture style

SE394 RUIZ DE ARGANDOA, V.G.; **RODRIGUEZ REY, A.**; CELORIO, C.; CALLEJA, L.; SUAREZ DEL RIO, L.M.; LLAVONA, J.
SE39.2-022 Characterization by computed X-ray tomography of the evolution of the pore structure of a dolomitic rock during freezing-thawing ageing tests

SE395 **DAROT, M.**; MENENDEZ, B.; BERNARD, J.-D.
SE39.2-023 Infinite cluster imaging: experimental aspects of wood's metal intrusion in Fontainebleau sandstones

SE396 MENENDEZ, B.; RODRIGUEZ-REY, A.; MONTOTO, M.
SE39.2-024 Estimation of pore geometry parameters in rocks from single sections by stereology

SE397 MOREAU, E.; **SAMMARTINO, S.**; TOUCHARD, G.
SE39.2-025 2D and 3D geometry of soils: pore size distribution and percolation paths

SE398 **DUBOIS, C.**; GAVIGLIO, P.; THEMIER, F.; POINTEAU, I.
SE39.2-026 2D/3D characterization of a natural porous medium: the chalk

SE399 **SAUSSE, J.**; LESPINASSE, M.; CANALS, M.
SE39.2-027 Micro and macrofractures planes roughness. Evidences of high chenalizatioons of fluids and consequences on fluid-rock interactions

SE400 **CARRIO SCHAFFHAUSER, E.**; GAMOND, J.F.; HENRIOT, O.; CHAMILLET, J.
SE39.2-028 The grain scale localisation processes: experimental study on lacustrine clays

SE401 **DELERUE, J.F.**; YU, Z.Y.; MA, S.D.; PERRIER, E.
SE39.2-029 A new method of skeleton extraction and application for 3D soil images

SE39 Physical properties of geomaterials .3 The effect of rock micro-structure and fluids on rock physical properties - Poster Session

Convener: Glover, P.W.J.
Co-Convener(s): Huenges, E.; Main, I.; Safanda, J.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE

SE402 RUSINIAK, L.
Spontaneous polarization of water in a porous solid body

SE403 **ZAPPONE, A.**; KHAZANEHDARI, J.; RUTTER, E.; BURLINI, L.
Seismic laboratory measurements of Vp and Vs on rocks with granitic composition

SE404 **LOPES, I.**; ALMEIDA, T.; MARQUES, F.; TEVES-COSTA, P.
Mechanical behaviour of miocene soft rocks and their micro-structure

SE405 CHERNOVA, I.Y.; **SIDOROVA, N.N.**
Petrophysical properties of sandstone in facies and palaeotectonic reconstructions

SE405A PRIBNOW, D.; WILLIAMS, C.; DUYSTER, J.; SASS, J.
The effect of water-saturation on thermal conductivity

SE39 Physical properties of geomaterials .3 The effect of rock micro-structure and fluids on rock physical properties

Convener: Glover, P.W.J.
Co-Convener(s): Huenges, E.; Main, I.; Safanda, J.
Friday, 24 April 1998
Lecture Room: R11
Chairperson: Glover, P.W.J.

09:00 WONG, T.-F.
Effects of stress on permeability (Solicited Paper)

09:30 **BERNARD, D.**; VIGNOLES, G.; ANGUY, Y.
Coupled evolutions of micro-geometry and transport properties: a numerical study for simple porous media

09:45 **GLOVER, P.W.J.**; MATSUKI, K.; HIKIMA, R.; HAYASHI, K.
Synthetic rough fractures in rocks for flow modelling
10:00 GLOVER, P.W.J.; MATSUKI, K.; HIKIMA, R.; HAYASHI, K.
Fluid flow in synthetic rough fractures and applications to a field scale fracture
10:15 OGILVIE, S.
The influence of fluorite and barite cementation on porosity and permeability in reservoir and reservoir analogue sandstones
10:30 BREAK

Chairperson: Main, I.

11:00 **CLAVAUD, J.-B.**; ZAMORA, M.
Transport properties of sedimentary and volcanic rocks
11:15 **MERCET, C.**; BERNARD, D.; ANGUY, Y.
Effects of surface conductivity on formation factor: a numerical study for simple porous media
11:30 **BERNARD, M.L.**; ZAMORA, M.; GERAUD, Y.
Electrical and hydraulic properties of pyroclastic rocks and their relations to microstructure
11:45 **BÄCHLE, G.**; GLOVER, P.
Pore structure and transport in a pure sandstone - determination of relevant properties
12:00 **PAPE, H.**; CLAUSER, C.; BARTELS, J.
Permeability-porosity relationship for sedimentary, igneous and metamorphic rocks on the base of fractal pore space geometry
12:15 CORAZZA, M.; **LOSITO, G.**; PRATESI, G.; TROVA, A.
Critical size of crystallites in electrical conductivity of graphitic rocks
12:30 **WEERTS, A.H.**; BOUTEN, W.
Simultaneous measurement of water retention and electrical conductivity: test of a tortuosity model
12:45 KULENKAMPFF, J.
Complete pore size distributions of rocks controlling complex electrical and transport properties
13:00 LUNCH

Chairperson: Huenges, E.

14:00 **ZAMORA, M.**; CATTIN, R.
Effect of pore geometry on thermal properties of sedimentary rocks
14:15 PRIBNOW, D.; WILLIAMS, C.; DUYSTER, J.; SASS, J.
The effect of water-saturation on thermal conductivity (Poster)
14:20 KOHL, T.; RYBACH, L.
Estimating fluid flow behaviour in mid-crustal depth domains
14:35 WULFF, A.-M.
Variation of wave attenuation in different dry rocks during micro fracturing
14:50 **MITROFANOV, G.**; NEFEDKINA, T.; KURDJUKOVA, T.
Seismic dynamic inversion using compressional and converted waves
15:05 KERN, H.; POPP, T.
P- and S-wave velocities and attenuation in relevant crustal rocks at PT conditions and the role of intercrystalline fluids
15:20 BREAK

Chairperson: Safanda, J.

16:00 **TOMECKA-SUCHON, S.**; MARCAK, H.
Investigation on physical properties of fractured rock by geophysical methods
16:15 RUSINIAK, L.
Spontaneous polarization of water in a porous solid body (Poster)
16:20 **ZAPPONE, A.**; KHAZANEHDARI, J.; RUTTER, E.; BURLINI, L.
Seismic laboratory measurements of Vp and Vs on rocks with granitic composition (Poster)
16:25 **LOPES, I.**; ALMEIDA, T.; MARQUES, F.; TEVES-COSTA, P.
Mechanical behaviour of miocene soft rocks and their micro-structure (Poster)
16:30 CHERNOVA, I.Y.; **SIDOROVA, N.N.**
Petrophysical properties of sandstone in facies and palaeotectonic reconstructions (Poster)
16:35 **FÖRSTER, A.**; DOVETON, J.H.; MERRIAM, D.F.; BLACKWELL, D.D.
In situ thermal conductivity and its importance for heat-flow studies: an example from a sedimentary environment
16:50 POPP, T.; KERN, H.
How dilatant is rock salt?
17:05 GLOVER, P.W.J.
Summary of session
17:30 END OF SESSION

SE39 Physical properties of geomaterials .4 Pore pressure as a geomechanical and geophysical parameter

Convener: Kümpel, H.-J.
Co-Convener(s): Grasso, J.-R.
Wednesday, 22 April 1998
Lecture Room: R11
Chairpersons: Grasso, J.-R.; Kümpel, H.-J.

14:00 **GRECKSCH, G.**; KÜMPEL, H.-J.
Deformation field and pore pressure changes following the M5.9 Roermond-Earthquake
14:15 **KÜMPEL, H.-J.**; GUPTA, H.K.; RADHAKRISHNA, I.; CHADHA, R.K.; GRECKSCH, G.
Studying the role of pore pressure in a RIS case
14:30 **KESSELS, W.**; ZOTH, G.
Determination of hydraulic conductivity and subsidence volume from water level measurements during blasting operations
14:45 **AUDIGANE, P.**; ROYER, J.J.; SHAPIRO, S.
3D permeability tensor estimation from microseismic data
15:00 **SCHULZE, K.C.**; KÜMPEL, H.-J.; HUENGES, E.
Pore pressure signals from great depth: continuous fluid level records from the KTB, Kola SG-3 and Iceland LL-03 boreholes
15:15 **REVIL, A.**; CATHELS, L.M.; PEZARD, P.A.
Fluid overpressures in western Mediterranean sediments
15:30 **PEREZ, L.**; BERNARDI, D.; JIMENEZ, O.
Modelling of compaction in faulted sedimentary basins: influence of different mechanical models on fluid pressure

15:45 **BOUCHETTE, F.**; SEGURET, M.; MOUSSINE-POUCHKINE, A.
Brecciation of a weakly cohesive carbonate mud by wave-induced liquefaction
16:00 CHERNIAVSKI, V.; SUETNOVA, E.
Natural porosity evolution in the Earth crust: time scale and influence of boundary conditions
16:15 END OF SUB-SESSION

SE39 Physical properties of geomaterials .5 Physical properties of partially molten rocks

Convener: Dell'Angelo, L.N.
Co-Convener(s): Rosenberg, C.
Wednesday, 22 April 1998
Lecture Room: R11
Chairpersons: Rosenberg, C.; Dell'Angelo, L.N.

08:40 Introduction
08:45 **LAPORTE, D.**; PROVOST, A.; RIGNAULT, E.
Dihedral angles and melt interconnection in partially molten crust: theory and experiments
09:00 **VIGNERESSE, J.L.**; TIKOFF, B.
Strain partitioning and percolation effects on the rheology of partial melt and crystallizing magma
09:15 **BROWN, M.**; SOLAR, G.S.
Melt extraction and transport during deformation
09:30 **BRUHN, D.**; ZIMMERMAN, M.E.; KOHLSTEDT, D.L.
Deformation of partially molten mantle rocks at high stresses
09:45 **GROEBNER, N.**; BRUHN, D.; KOHLSTEDT, D.L.
Topology of metal melts in olivine aggregates deformed to high shear strain
10:00 MUELLER, H.J.; KERN, H.; RAAB, S.; POPP, T.; ROETZLER, K.
Elastic properties of granite under high pressure-high temperature conditions up to partial melting
10:15 GALLO, J.; **KRUHL, J.H.**
Magmatic deformation during melt ascent in a developing ring complex (the Larvik Pluton, Norway)
10:30 **ROSENBERG, C.L.**; RILLER, U.
Melt popology in naturally deformed granitoid rocks
10:45 SAWYER, W.
Microstructural evidence for melt in magmatitese
11:00 BERGER, A.
Microstructures in cordierite-bearing migmatities: inferences for melt segregation
11:15 **DARROZES, J.**; GAILLOT, P.; TIKOFF, B.
Strain and fabric analyses on porphyroclast interaction
11:30 **GAILLOT, P.**; DARROZES, J.; GREGOIRE, V.
Fabric image analysis tools for polyphased rocks: a comparative study
11:45 END OF SUB-SESSION
12:00 Business Meetings

SE39 Physical properties of geomaterials .6 Physical properties of mudrocks

Convener: Horseman, S.T.
Co-Convener(s): Urai, J.L.
Tuesday, 21 April 1998
Lecture Room: R11
Chairperson: N.N.

11:00 THURY, M.; **GAUTSCHI, A.**
The Mont Terri underground rock laboratory; a new international research project in shale
11:20 ALONSO, E.E.; GENS, A.; LLORET, A.
Time dependent swelling of mudrocks (Solicited Paper)
11:50 HARRINGTON, J.F.; **HORSEMAN, S.T.**
Chemico-osmotic flow, swelling and hydration in shales
12:10 SOLER, J.M.
Coupled transport phenomena in the Opalinus Clay (Switzerland): first estimates of solute fluxes
12:30 BILLIOTTE, J.; BOISSON, J.Y.; DAUPLEY, X.
Some aspects of relationships between hydric and mechanical properties of an argillaceous rock
12:50 LUNCH

Chairperson: N.N.

14:00 TEVISSEN, E.; HARMAND, B.; GRIFFAULT, L.; VITART, X.; CAVE, M.
Characterisation of anion diffusion in a siltite formation (Marcoule, France): through-diffusion experiments and interpretation of in-situ chloride and bromide profiles
14:20 GRIBI, P.; RIVERA, A.; SCHNEIDER, J.; ZUIDEMA, P.
Consolidation-induced radionuclide release from a HLW repository in the Opalinus clay in Switzerland
14:40 **CARTWRIGHT, J.A.**; DEWHURST, D.N.
Compaction by syneresis: a mechanism for the development of polygonal fault systems in ultra fine-grained sediments
15:00 KOSTYRYA, V.YA.; AGAFONOV, A.V.
Local offloading of the outburst-hazardous coal seams by the preparational workings
15:20 GALLE, C.
Behaviour of compacted clay under high gas pressure
15:40 **HARRINGTON, J.F.**; HOOKER, P.J.; HORSEMAN, S.T.
An in situ gas injection experiment in the Mercia mudstone, Keyworth, England
16:00 **HERBERT, H.-J.**; MOOG, H.
Ion exchange, water uptake, swelling and swelling pressure of MX-80 bentonite in high saline brines
16:20 END OF SUB-SESSION

SE39 Physical properties of geomaterials .6 Physical properties of mudrocks - Poster Session

Convener: Horseman, S.T.
Co-Convener(s): Urai, J.L.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: RHODES - SE

SE406 **CAVE, M.**; GRIFFAULT, L.; REEDER, S.
The extraction and characterisation of pore-water from lower permeability argillaceous rock samples

SE407 **TAKAHASHI, M.**; SHIMAMOTO, T.
Velocity dependent behaviour of clay gouge

SE408 VAN DER ZEE, W.; URAI, J.L.
Clay injection into normal faults: first results from finite element modelling

SE409 ALEXEEV, A.D.; BRYUKHANOV, A.M.; KERKEZ, S.D.; PITALENKO, E.I.; REVVA, V.N.; SNISHKO, V.D.
Physical and mechanical properties of coal and their influence on the geophysical parameters of rock mass

SE410 **HOLVOET, F.-X.**; VOLCKAERT, G.; BERNIER, F.; ORTIZ, L.
Controlled suction oedometric tests on Boom clay

SE41 Electro-magnetic and electro-kinetic properties of rocks: integration of laboratory, borehole and field measurements

Convener: Glover, P.W.J.
Co-Convener(s): Revil, A.; Stoll, J.B.
Monday, 20 April 1998
Lecture Room: R8
Chairperson: Glover, P.W.J.
Editor: Stoll, J.B.

11:00 **JOUNIAUX, L.**; BERNARD, M.L.
SE41-001 Streaming potential measurements on volcanic samples (Solicited Paper)

11:30 **REVIL, A.**; PEZARD, P.A.; GLOVER, P.W.J.
SE41-002 Streaming electrical potential in porous media. Theory and geothermal application

11:45 **PREISS, S.**; TIMM, F.; CZEGKA, W.; HUENGES,
SE41-003 E.; MÖLLER, P.
Electrokinetically induced fluid flow in porous media

12:00 COELHO, D.; **THOVERT, J.-F.**; ADLER, P.M.
SE41-004 Electroosmotic phenomena in porous media

12:15 LORNE, B.; PERRIER, F.; AVOUAC, J.-P.
SE41-005 Streaming potential measurements with crushed rock samples and rock samples during deformation and rupture

12:30 LUNCH

Chairpersons: Revil, A.; Stoll, J.B.
Editor: Glover, P.W.J.; Revil, A.

14:00 CLINT, O.C.; SAMMONDS, P.R.; YOSHIDA, S.;
SE41-006 **MEREDITH, P.G.**
Electrical potential signals from rocks undergoing deformation under simulated crustal conditions

14:15 **POZZI, J.P.**; JOUNIAUX, L.
SE41-007 Streaming potential measurement as aprecursor to failure

14:30 **GARAMBOIS, S.**; DIETRICH, M.
SE41-008 Seismo-electric propagation in porus media: field experiments and theoretical studies

14:45 PERRIER, F.; TRIQUE, M.; LORNE, B. AVOUAC,
SE41-009 J.-P.; HAUTOT, S.; TARITS, P.
Electric potential variations associated with yearly lake level variations

15:00 NEISHTADT, N.M.
SE41-010 On the piezoelectric properties of rocks, ores and minerals

15:15 NEISHTADT, N.M.
SE41-011 Classification of Piezo- and electrokinetic phenomena

15:30 **BOULYTCHOV, A.**; KOKSHAROV, V.
SE41-012 Method of seismic-electric effect used on reflected waves

15:45 **SMILJANIC, N.**; MILIVOJEVIC, M.; SCHNEGG,
SE41-013 P.-A.; MARTINOVIC, M.
The electrical conductivity of the curst in Macva area (Serbia) and their connections with tonalite and metamorphic rocks

16:00 MARTINELLI, G.
SE41-014 The possible joint appearance of pre-seismic geochemical and geoelectrical anomalies in tectonically active areas (Poster)

16:05 **BIGALKE, J.**; JUNGE, A.
SE41-015 Application of the nonlinear IP effect to detect mineralized shear zones (Poster)

16:10 **KOPPAN, A.**; SZARKA, L.; WESTZTERGOM, V.
SE41-016 Conclusions from multichannel electrical recordings in a standing tree (Poster)

16:15 INGEROV, A.I.; BELYAVSKY, V.V.;
SE41-017 ANTSIFIROV, A.V.; VLASOV, Y.T.; SOLDATENKO, V.P.; ROKITYANSKY, I.I.
Results of field, borehole and laboratory electromagnetic measurements in an oil-gas deposit in northern Ukraine (Poster)

16:20 GLOVER, P.W.J.
Summary of session

16:30 END OF SESSION

17:00 Opening

19:30 Reception

SE41 Electro-magnetic and electro-kinetic properties of rocks: integration of laboratory, borehole and field measurements - Poster Session

Convener: Glover, P.W.J.
Co-Convener(s): Revil, A.; Stoll, J.B.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE

SE411 MARTINELLI, G.
SE41-014 The possible joint appearance of pre-seismic geochemical and geoelectrical anomalies in tectonically active areas

SE412 **BIGALKE, J.**; JUNGE, A.
SE41-015 Application of the nonlinear IP effect to detect mineralized shear zones

SE413 **KOPPAN, A.**; SZARKA, L.; WESTZTERGOM, V.
SE41-016
Conclusions from multichannel electrical recordings in a standing tree

SE414 INGEROV, A.I.; BELYAVSKY, V.V.;
SE41-017 ANTSIFIROV, A.V.; VLASOV, Y.T.; SOLDATENKO, V.P.; ROKITYANSKY, I.I.
Results of field, borehole and laboratory electromagnetic measurements in an oil-gas deposit in northern Ukraine (Poster)

SE42 Physical properties of fault zones

Convener: Willemse, E.J.
Co-Convener(s): Sanderson, D.J.
Tuesday, 21 April 1998
Lecture Room: R2
Chairperson: N.N.

14:00 VAN DER ZEE, W.; URAI, J.L.
Quasi-static mechanical properties of faults

14:15 LANSIGU, C.; RIVES, T.; VAN DEN DRIESSCHE, J.; ZELLAGUI, R.
Brittle-ductile transition in normal fault zones: implication for fault sealing

14:30 **WIBBERLEY, C.**; PETIT, J.-P.; RIVES, T.
Normal stress control on cataclastic zone development around neo-ruptured faults

14:45 KAY, M.A.; MAIN, I.G.; NGWENYA, B.T.; ELPHICK, S.C.
Physico-chemical fault sealing in gouge rich experimental fault zones: a preliminary study

15:00 ITO, H.; KUWAHARA, Y.; MIYAZAKI, T.; KIGUCHI, T.; FUJIMOTO, K.; OHTANI, T.; TAKANA, H.; HIGUCHI, T.; TOMIDE, N.; AGAR, S.M.; BRIE, A.; YAMAMOTO, H.
Structure and physical properties of the Nojima fault from active fault drilling

15:15 **PEACOCK, D.C.P.**; SANDERSON, D.J.
The influence of fault propagation of stress system and layering

15:30 MURRAY, T.A.; RIGOL, E.; GRIFFITHS, P.A.; OSBOURN, R.J.; KAPE, S.J.; JAFFRI, F.
The prediction of fault damage zone structures using strain derived from kinematic modelling at a potential radioactive wase repository

15:45 **LESPINASSE, M.**; CATHELINEAU, M.
Fluid pressure in faults and paleostress quantification by the use of fluid inclusion planes (FIP)

16:00 **SANDERSON, D.J.**; ZHANG, X.
Damage and fluid flow around normal faults in multilayered sequences

16:15 KNIPE, R.J.; MCALLISTER, E.; HARRIS, S.D.; JONES, G.; FISHER, Q.J.; ALLIN, N.; CLENNELL, B.; ERNSHAW, J.; EDWARDS, E.; FARMER, A.B.; HENSON, D.; HOUGHTON, J.; JONES, R.; PEACOCK, D.; PORTER, J.R.; ROWE, J.; WHITE, E.
Faulting processes, fault rock distribution and the behaviour of luids in fault zones

16:30 INGEROV, A.I.; ANTSIFIROV, A.I.; BELYAVSKY, V.V.; ROKITYANSKY, I.I.; SOLDATENKO, V.V.; VLASOV, Y.T.; KUSCH, O.
Electrical properties of deep faults on the Ukrainian shield and its slopes

16:45 END OF SESSION

SE43 Advances in the physical interpretation of electromagnetic soundings - Poster Session

Convener: Marquis, G.
Co-Convener(s): Perrier, F.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE

SE359 RITTER, O.
New processing for magnetotelluric remote reference observations

SE360 **OETTINGER, G.**; LARSEN, J.C.; HAAK, V.
Processing of noisy magnetotelluric data with the two source method: an example from the Saxonian Granulite Massif

SE361 **SZARKA, L.**; MENVIELLE, M.
Use of non-conventional approach in magnetotellurics

SE362 **SZARKA, L.**; ADAM, A.; MENVIELLE, M.
Comparison of tensor decomposition methods on MT data measured in the Pannonian basin

SE363 **WEAVER, J.T.**; AGARWAL, A.K.
Investigation of the magnetotelluric tensor invariants and their physical intepretation using a synthetic model

SE364 JONES, F.W.; CORREIA, A.
Anisotropic and dimensional character of MT results from southern Portugal using Mohr circle analysis

SE365 **BANKS, R.J.**; WRIGHT, D.
Telluric analysis of distributed magnetotelluric impedance measurements

SE366 VAGIN, S.A.
The false condactive anomalies on 1-D interpretation and exception them by following 2-D interpretation

SE367 MONTEIRO SANTOS, F.A.; MATIAS, H.; PINA ALMEIDA, E.; MENDES VICTOR, L.
3D conductivity structure of a plio-quaternary tectonic basin: the Vilarica basin (NE Portugal)

SE368 WECKMANN, U.
AMT soundings in Spessart Mountains

SE369 SHOLPO, M.E.
Conditions providing the effective using of the apparent resistivity for the MT-monitoring of the geodynamical processes

SE370 BERNARD, T.; **TRESSOLS, F.**
New approach in 3D VLF-EM data representation: exact location of cavities in karst formations from field survey (Poster + PC demo)

PC Demo: Thursday 17.00-19.00 in the poster area

Surveys in Geophysics

the EGS journal for the publication of extended and refereed review articles in all disciplines concerning geo- and space sciences.

Surveys in Geophysics is published by Kluwer Academic Publishers

---

SE44 Can electromagnetic images constrain geophysical interpretation of tectonically active environments?

Convener: Simpson, F.
Co-Convener(s): Manzella, A.; Ritter, P.; Schnegg, P.-A.; Smiljanic, N.
Thursday, 23 April 1998
Lecture Room: R9
Chairperson: Simpson, F.
Editors: Simpson, F.; Manzella, A.; Ritter, P.

08:30 BOERNER, D.E.
SE44-001 Addressing geological non-uniqueness in appraising tectonic constraints provided by EM data (Solicited Paper)
09:00 ECHTERNACHT, F.
SE44-002 The resistivity structure of the active continental margin in northern Chile
09:15 **RITTER, O.**; MÜLLER, A.; ECHTERNACHT, F.;
SE44-003 HAAK, V.; DWIPA, S.; ARSADI, E.; MAHFI, A.; BYRDINA, S.; HOFFMANN-ROTHE, A.
Broadband magnetotelluric data from central Java, Indonesia
09:30 **MANZELLA, A.**; MACKIE, R.; FIORDELISI, A.
SE44-004 MT survey in the Amiata volcanic area: a combined methodology for defining shallow and deep structures
09:45 MARSELLA, E.; PATELLA, D.; PETRILLO, Z.;
SE44-005 **SINISCALCHI, A.**
Magnetotelluric profiles in southern Apennines
10:00 **DI MAURO, D.**; VOLPI, G.; MANZELLA, A.;
SE44-006 ZAJA, A.; PRATICELLI, N.; CERV, V.; PECK, J.; DE SANTIS, A.
Preliminary EM investigations of the seismo-active region of northern Bohemia
10:15 **TZANIS, A.**; MAKROPOULOS, K.
SE44-007 Magnetotellurics and seismotectonics in the analysis of active domains: an essential combination
10:30 BREAK

Chairperson: Ritter, P.
Editors: Simpson, F.; Manzella, A.; Ritter, P.

10:45 **BIGALKE, J.**; JUNGE, A.
SE44-008 Geoelectrical anomalies and their relevance to tectonic interpretations
11:00 STOLL, J.B.; BAHR, K.; GATZEMEIER, A.
SE44-009 MT- and DC-studies close to the Saxothuringian-Rhenohercynian suture zone
11:15 BAHR, K.
SE44-010 Electrical anisotropy and European stress
11:30 **ALPEROVICH, L.**; CHAIKOVSKY, I.
SE44-011 On the origin of mechanoelectrical effect before an earthquake

Observations of the electromagnetic field of the Earth in the Alpine-Mediterranean region

11:45 SMILJANIC, N.
SE44-012 The electrical conductivity of the crust and upper mantle in the south east Europe and their tectonic significance
12:00 **ROKITYANSKI, I.I.**; INGEROV, A.I.
SE44-013 Conductive structure of Ukrainian Carpathians from EM observations
12:15 INGEROV, A.I.; **ROKITYANSKI, I.I.**; VLASOV,
SE44-014 Y.T.
Electrical conductivity of Earth's crust and upper mantle in crimea
12:30 KOSTYANEV, S.G.
SE44-015 Mathematical modelling of some geoelectrical fields in 3D gradient media
12:45 **BICSKEI, T.**; HASKIC, A.
SE44-016 An array study of daily magnetic variations in Yugoslavia
13:00 END OF SESSION

SE44 Can electromagnetic images constrain geophysical interpretation of tectonically active environments? - Poster Session

Convener: Simpson, F.
Co-Convener(s): Manzella, A.; Ritter, P.; Schnegg, P.-A.; Smiljanic, N.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairperson: Manzella, A.
Editors: Simpson, F.; Manzella, A.; Ritter, P.

SE371 **LEMONNIER, C.**; MARQUIS, G.; PERRIER,
SE44-017 F.
Electrical structure from the gangetic plain to the Himalayas
SE372 **SIMPSON, F.**; HAAK, V.; KHAN, M.A.
SE44-018 Electromagnetic properties of the southern Kenya Rift
SE373 STANICA, M.
SE44-019 Approach of the tectonical active zones (Vrancea area) by MT soundings
SE374 **MAGUNIA, A.**; SIMPSON, F.; WATERMANN,
SE44-020 J.
Audiomagnetotelluric sounding on the Montecristo Island (Italy)
SE375 **SIMPSON, F.**; BAHR, K.
SE44-021 Resolution of mantle heterogeneities from simultaneous continental and island electromagnetic measurements
SE376 RITTER, P.
SE44-022 3D modelling studies of the connection between magnetic distortion effects in GDS data and the scale length of conductivity anomalies

SE46 Open session on marine geophysics - Poster Session

Convener: Danobeitia, J.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: RHODES - SE

SE415 POLONIA, A.; BRANCOLINI, G.; TORELLI, L.; RANERO, C.
Mechanisms of subduction accretion along the oblique convergent margin off southernmost Chile

SE416 **DIAZ-NAVEAS, J.**; VON HUENE, R.; KLÄSCHEN, D.; RANERO, C.
Sediment subduction/accretion of the Chilean convergent margin between 35° and 40° S

SE417 **LAURSEN, J.**; KLÄSCHEN, D.; RANERO, C.R.; VON HUENE, R.
High resolution seismic investigation of the continental margin offshore Valparaiso, Chile

SE418 **RANERO, C.R.**; VON HUENE, R.; FLUEH, E.; DUARTE, M.; BACA, D.
Structure of the Sandino Forearc Basin, Pacific margin on Nicaragua

SE419 WALTHER, CH.H.E.; FLUEH, E.R.
From Cocos to Caribbean Plate - geophysical investigations at the Pacific coast of Nicaragua

SE420 STAVENHAGEN, A.U.; FLUEH, E.R.; TICOSECT AND COTCOR WORKING GROUPS
TICOSECT/COTCOR: results of wide-angle investigations on and offshore Costa Rica

SE421 **BARTOLOME, R.**; DANOBEITIA, J.J.; CORDOBA, D.; CANALES, J.P.; CARBONELL, R.; DELGADO-ARGOTE, L.A.; ROMERO, M.; CHARVIS, PH.
Architecture and crustal evolution across the EPR at 22 N from the southern tip of Baja California to Puerto Vallarta

SE422 FLUEH, E.R.; KLAESCHE, D.; KUKOWSKI, N.; ADAM, J.; ORWELL WORKING GROUP
Quantifying accretion in the Cascadia subduction zone off Washington

SE423 SCHILLHORN, T.; KUKOWSKI, N.; FLÜH, E.R.; MAMUT WORKING GROUP
Morphotectonics of the makran accretionary wedge

SE424 ALLERTON, S.; SCARLE, R.; ESCARTIN, J.
Evidence for asummetric accretion at the end of a slow spreading segment

SE425 **RUELLAN, E.**; DELTEIL, J.; PELLETIER, A.; KOBAYASHI, K.; MATSUMOTO, T.; WRIGHT, I.; BUFFET, G.
Back-arc opening at the transition from the Lau Basin to the Havre Trough (SW Pacific)

SE426 **POROSHINA, I.**; FOUQUET, Y.; CHERKACHEV, G.; PRIEUR, D.
Tectonic setting of te Logachev hydrothermal field (MAR, 14°45'N)

SE427 **SARDOU, O.**; RUELLAN, E.; BERTHOD, M.
Morphologic analyses of spreading centers by image processing

SE428 **KISIMOTO, K.**; HILDE, T.W.C.
Collocated imagery and bathymetry makes the super fast east Pacific rise into stereo view

SE429 TAKAHASHI, N.; ABE, S.; MURAKAMI, F.; NISHIZAWA, A.
The seismic experiments at the northern end of the Havre Trough

SE430 VILLASENOR, A.; **CANALES, J.P.**; DANOBEITIA, J.J.
Crustal structure and magmatic underplating beneath Tahiti, Society Islands

SE431 HINZ, K.; **NEBEN, S.**; REICHERT, C.; DEVEY, C.W.; GOHL, K.; BLOCK, M.; MEYER, H.
Isochronous changes in the images of the Cretaceous oceanic crust of the Angola basin/south Atlantic

SE432 **DEHGHANI, G.A.**; HIEKE, W.; SABETIAN, A.; HEINBOCKEL, R.; GROPIUS, M.
Geophysical studies in the Mediterranean Sea during Meteor cruise no. 40/1

SE433 **SCHMIDT, E.**; JOKAT, W.
Seismic facies and glaciomarine sedimentation in the southern Weddell Sea

SE434 WEINREBE, W.; KOPP, C.
Submarine morphology imaged by high resolution bathymetry

SE435 **MCGRANE, K.**; READMAN, P.W.; O'REILLY, B.M.; JACOB, A.W.B.; KEARY, R.
Gravity and side-scan sonar studies in the rock-all and porcupine troughs, offshore Ireland

SE436 **MILES, P.R.**; SCHAMING, M.; CASAS, A.; SACHPAZI, M.; MARCHETTI, A.
SEISCAN - European marine seismic archaeology

SE437 **ROGENHAGEN, J.**; JOKAT, W.
Sediment thickness in the western Weddell Sea (Antarctica)

SE438 **NARDIN, M.**; GLANGEAUD, F.
Sediment velocity estimation in shallow water configuration

SE439 **CHMARZYNSKI, P.**; JANLE, P.
Lithospheric thickness in the region of the St. Helena hot spot from satellite data

SE440 **THIROT, J.L.**; HUMLER, E.; GOSLIN, J.; DOUCELANCE, R.; MONTAGNIER, J.P.
Correlations between deep seismic velocity anomalies and isotope ratios of MORB along the mid Atlantic and west and central Indian ridges

SE440A ESCARTIN, J.; CANALES, J.P.; DETRICK, R.S.; DANOBEITIA, J.J.
Hotspot effects on faulting and tectonic strain along the Galapagos spreading center

SE47 Structure and composition of oceanic lithosphere
.1 Rifted margins

Convener: Reston, T.J.
Co-Convener(s): Sibuet, J.-C.
Tuesday, 21 April 1998
Lecture Room: R10
Chairperson: N.N.

08:45 **HINZ, K.**; BGR'S MARINE GEOPHYSICAL GROUP
Formation of Atlantic volcanic margins and episodes of intensive production of oceanic crust in the Atlantic (Solicited Paper)

09:15 **SCHRECKENBERGER, B.**; HINZ, K.; NEBEN, S.
Seaward-dipping reflector sequences at south Atlantic passive margins and the source of magnetic anomaly G

09:35 DAUTEUIL, O.; QUEMENEUR, F.; HUCHON, P.
Rift of Aden Gulf: oblique rifting and transition between continent and ocean lithosphere

09:55 **ROLLET, N.**; BESLIER, M.O.; CONTRUCCI, I.; DEVERCHERE, J.
Conjugate margins of the Ligurian Sea, northwestern Mediterranean: deep structure and evolution

10:15 BREAK

SE

Chairperson: Whitmarsh, B.

10:45 LARSEN, H.C.; DLC STUDY GROUP
The south-east Greenland rifted margin: a record of plume impact and later continental rupture (Solicited Paper)

11:15 DAHL-JENSEN, T.; HOLBROOK, W.S.; HOPPER, J.R.; KORENAGA, J.; LARSEN, H.C.; KELEMEN, P.B.; REID, I.D.; DETRICK, R.; KENT, G.; BERNSTEIN, S.; LIZARRALDE, D.
The south-east Greenland volcanic rifted margin

11:35 PLANKE, S.
Elastic properties of subaerially emplaced basalts on rifted margins: the importance of clay alteration

11:55 JOKAT, W.
Structure and sediment distribution on the north Greenland continental margin and in the Fram Strait north of 80°N

12:15 **THINON, I.**; FIDALGO, L.; REHAULT, J.P.; OLIVET, J.L.
The continent/ocean boundary of Bay of Biscaye

12:35 BOESEN, A.; SKAARUP, N.
Onshore-offshore correlation of basaltic facies and related structures, central west Greenland

12:40 **BERNDT, C.**; SKOGSEID, J.; PLANKE, S.; MJELDE, R.
Deep crustal structure of the Voring basin: a comparative sensitivity analysis of OBS and ESP data

12:45 LUNCH

Chairperson: N.N.

14:00 WHITMARSH, R.B.; ODP LEGS 149/173, DISCOVERY CRUISE 215 SCIENTIFIC PARTIES
Review of the ocean-continent transition (OCT) in the southern Iberia abyssal plain, west Iberia margin

14:20 **BESLIER, M.O.**; WHITMARSH, R.B.; WALLANCE, P.J.; LEG 173 SHIPBOARD SCIENTIFIC PARTY
Structure of the 120 km-wide ocean-continent transition of the Iberia Abyssal Plain Margin (Portugal): preliminary results of the ODP Leg 173

14:40 RESTON, T.J.
Investigations of continental breakup west of Iberia. New perspectives of rifting and drifting

15:00 **RUSSELL, S.M.**; WHITMARSH, R.B.
Magnetic studies in the Iberia Abyssal Plain: source body characterisation across the ocean continent transition

15:20 **LOUDEN, K.E.**; CHIAN, D.; MISNHULL, T.A.
Seismic images of 3-D variations in the ocean-continent transition off Iberia near ODP Leg 149 and 173 drill sites

15:40 **MINSHULL, T.A.**; DEAN, S.M.; WHITMARSH, R.B.; RUSSELL, S.M.; LOUDEN, K.E.; CHIAN, D.
Seismic velocity structure along profile IAM-9, southern Iberia abyssal plain

16:00 GIRARDEAU, J.; BESLIER, X.; **BOILLOT, G.**; CORNEN, G.; SCHARER, U.
Structure of the Galicia margin peridotite ridge

16:20 **PEREZ-GUSSINYE, M.**; RESTON, T.J.; RANERO, C.R.; FLUEH, E.
Structure of the Galicia Interior Basin

* not included in the Book of Abstracts

16:25 **DANOBEITIA, J.J.**; CORDOBA, D.; DIAZ, J.; BARTOLOME, R.; SALLARES, V.; SANDOVAL, S.; CASERO, N.; ROMERO, M.; SAWYER, D.; ZELT, C.
Crustal structure from Galicia interior basin toward the Iberian Massif

16:30 END OF SUB-SESSION

SE47 Structure and composition of oceanic lithosphere
.1 Rifted margins - Poster Session

Convener: Reston, T.J.
Co-Convener(s): Sibuet, J.-C.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE

SE441 BOESEN, A.; SKAARUP, N.
Onshore-offshore correlation of basaltic facies and related structures, central west Greenland

SE442 **BERNDT, C.**; SKOGSEID, J.; PLANKE, S.; MJELDE, R.
Deep crustal structure of the Voring basin: a comparative sensitivity analysis of OBS and ESP data

SE443 **PEREZ-GUSSINYE, M.**; RESTON, T.J.; RANERO, C.R.; FLUEH, E.
Structure of the Galicia Interior Basin

SE444 **DANOBEITIA, J.J.**; CORDOBA, D.; DIAZ, J.; BARTOLOME, R.; SALLARES, V.; SANDOVAL, S.; CASERO, N.; ROMERO, M.; SAWYER, D.; ZELT, C.
Crustal structure from Galicia interior basin toward the Iberian Massif

SE445 **DEAN, S.M.**; MINSHULL, T.A.; WHITMARSH, R.B.
A detachment fault in 3-dimensions?: seismic reflection studies of the H-reflector, north Iberia Abyssal Plain

SE446 **DEAN, S.M.**; MINSHULL, T.A.; WHITMARSH, R.B.; LOUDEN, K.E.; CHIAN, D.
Prestack depth-migrated images of detachment faulting: the H-reflector, Iberia abyssal plain

SE47 Structure and composition of oceanic lithosphere
.3 Processes of crustal accretion at mid-oceanic-ridges

Convener: Escartin, J.
Co-Convener(s): Bonatti, E.; Canales, J.P.; Cochran, J.R.; Hekinian, R.
Wednesday, 22 April 1998
Lecture Room: R10
Chairperson: N.N.

09:00 **COCHRAN, J.R.**; WEST, B.P.; SYLVANDER, B.; CHRISTIE, D.M.
Rift propagation on the southeast Indian ridge

09:15 CANNAT, M.
Crustal thickness, regional axial depth and melting parameters at slow spreading mid-ocean ridges (Solicited Paper)

09:45 **ILDEFONSE, B.**; HIRTH, G.; JOHN, B.; TRIMBY, P.; YOSHINOBU, A.; ODP LEG 176 SCIENTIFIC PARTY
Structural evolution of the lower crust at slow-spreading ridge: preliminary results from ODP LEG 176, site 735B, south west Indian ridge (Solicited Paper)
10:15 HERTOGEN, J.; ODP LEG 176 SHIPBOARD SCIENTIFIC PARTY
Accretion of oceanic layer 3 at the very-slow spreading SW Indian Ridge, ocean drilling program hole 735B
10:30 SEARLE, R.C.; SLOOTWEG, P.; **LEE, S.-M.**; MEVEL, C.; TAMAKI, K.; FUJI SCIENTIFIC PARTY
Detailed near-bottom sidescan observation of the southwest Indian Ridge
10:45 **MULLER, M.R.**; MINSHULL, T.A.; WHITE, R.S.
Crustal structure and segmentation on the SWIR at 660E
11:00 **CANALES, J.P.**; DETRICK, R.S.
Segment-scale crustal structure variations within the rift mountains of the Mid-Atlantic Ridge (35°N) (Solicited Paper)
11:30 LUNCH
12:00 Business Meetings

Chairperson: N.N.

14:00 **GOSLIN, J.**; THIROT, J.L.; NOEL, O.; FRANCHETEAU, J.
Correlations between geophysical and geochemical observables along the mid-Atlantic ridge: slow-ridge/hotspot interactions
14:15 **BAZIN, S.**; HARDING, A.J.; ORCUTT, J.A.
Comparison of crustal structure beneath a robust and a non robust region of the SEPR
14:30 ESCARTIN, J.
Abundance of serpentinized peridotite in the lower oceanic crust from seismic velocites
14:45 BONATTI, E.; LIGI, M.; BORTOLUZZI, G.; CARRARA, G.; FABRETTI, P.; GILOD, D.; PEYVE, A.A.; SKOLOTNEV, S.; TURKO, N.
Mantle thermal anomalies influence the stability of Bouvet triple junction
15:00 **HEBERT, H.**; DEPLUS, C.; DIAMENT, M.; HUCHON, P.; KHANBARI, K.
Geophysical study of a young spreading ridge and its segmentation: the western Gulf of Aden
15:15 **CRAWFORD, W.C.**; WEBB, S.C.; HILDEBRANDT, J.A.
Comparing crustal melt at the east Pacific rise and the Juan de Fuca ridge
15:30 **LALOU, C.**; MÜNCH, U.; HALBACH, P.; REYSS, J.L.
Different periods of hydrothermal activity at the meso zone, Central Indian Ridge (CIR)
15:45 PROCKTER, L.M.; HEAD III, J.W.; WILSON, L.; SMITH, D.K.
Life cycles of axial volcanic ridges: morphological comparisons between the mid-Atlantic ridge and the Reykjanes ridge
16:00 **CHERKACHEV, G.**; POROSHINA, I.; CRANE, K.
Geological setting of the areas of hydrothermal activity on the Knipovich Ridge
16:15 **PEZARD, P.A.**; EINAUDI, F.; SCIENTIFIC PARTY OF ODP LEG 174B
Constraints on high frequency eruption dynamics at MOR's from downhole electrical images
16:30 END OF SESSION

SE47 Structure and composition of oceanic lithosphere .4 Collisional and transform plate boundaries and subduction zones

Convener: Henstock, T.J.
Co-Convener(s): Ranero, C.R.
Monday, 20 April 1998
Lecture Room: R9
Chairperson: Jokat, W.

08:45 **ARGNANI, A.**; CIUFFI, S.; LIGI, M.; GASPERINI, L.; BONATTI, E.
Episodes of contraction and extension along the eastward prolongation of the Romanche fracture zone, central Atlantic Ocean
09:00 **MINSHULL, T.A.**; EDWARDS, R.A.; WHITE, R.S.; FLUEH, E.R.; KUKOWSKI, N.; REICHERT, C.; MAMUT WORKING GROUP
Crustal structure of the Murray Ridge and Dalrymple Trough: lithosphere under oblique extension
09:15 FLUEH, E.R.; MAMUT WORKING GROUP
First results of SONNE leg SO 123 - MAMUT
09:30 **FECHNER, N.**; BLOCK, M.; DAMM, V.
Seismic reflection investigations in the northern Arabian Sea off Pakistan during SONNE cruise SO-122 (MAKRAN)
09:45 GUTSCHER, M.-A.; MALAVIELLE, J.; LALLEMAND, S.; COLLOT, J.-Y.
Unexplained seismic and volcanic gaps in the N. Andes: Effects of the subduction of Carnegie Ridge?
10:00 FLUEH, E.; KLAESCHEN, D.; KUKOWSKI, N.; ADAM, J.; ORWELL WORKING GROUP
Quantifying accretion in the Casacadia subduction zone off Washington (Solicited Paper) *
10:30 END OF SESSION

SE48 Gas hydrates in nature: results from geophysical and geochemical studies - Poster Session

Convener: Pecher, I.A.
Co-Convener(s): Kukowski, N.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE

SE447 **SCHOLL, D.W.**; HART, P.E.
Geophysical evidence for dense masses of methane hydrate in the deep Bering Sea basin
SE448 JAKOBSEN, M.; **MINSHULL, T.A.**; SINGH, S.C.; HUDSON, J.A.
Elastic properties of hydrate-bearing sediments from effective medium theories
SE449 HOBRO, J.W.D.; **MINSHULL, T.A.**; SINGH, S.C.; SPENCE, G.D.
Three-dimensional seismic tomographic studies of the methane hydrate stability zone in the Cascadia margin

SE450 **TINIVELLA, U.**; ACCAINO, F.; LODOLO, E.
Reflected and refracted seismic images of the BSR in the south Shetland margin (Antarctic Peninsula)

SE451 **WINTERS, W.**; BOOTH, J.; MASON, D.; PECHER, I.; DILLON, W.; DAVIS, R.; RELLE, M.; CLENNELL, B.
A laboratory system for creating and testing gas hydrates within sediment

SE452 BOOTH, J.S.; CLENNELL, B.; PECHER, I.A.; WINTERS, W.J.; RELLE, M.K.; DILLON, W.P.
Laboratory investigation of gas hydrate genesis in sediments: modes of occurence, volumes and growth patterns

SE453 **LORENSON, T.D.**; KVENVOLDEN, K.A.; KASTNER, M.; PAULL, C.K.
Comparison of gas hydrate composition from the Middle America Trench and Blake Ridge

SE454 NASRIFAR, KH.; **MOSHFEGHLAN, M.**
Calculating the incipient of hydrate formation temperatures in solutions containing alcohols and electrolytes

SE455 **HENRYS, S.A.**; URUSKI, C.; GIGGENBACH, W.F.; ALLIS, R.
Squeezing the sponge: gas and fluid along the Hikurangi Margin, North Island, new Zealand

SE456 KAYEN, R.; SCHOLL, D.; KVENVOLDEN, K.; LEE, H.
Global change, gas hydrate, and mass wasting of the continental slope

SE457 VILLINGER, H.; GREVEMEYER, I.; ROSENBERGER, A.; **KAUL, N.**
An integrated study of seismic and hydrothermal characteristics on the calthrate bearing sediments of the Makran accretionary wedge off Pakistan

SE458 GAYANOV, V.G.; **CIFCI, G.**
General characteristics of the Black Sea mud volcanoes and gas hydrates "shield" in the eastern Mediterranean Sea

SE459 GOLUBEV, V.A.
Evidence of presence of gas hydrates in Lake Baikal bottom sediments, based on in situ measurements of thermal conductivity

SE460 **SOLOVIEV, V.**; GINSBURG, G.
Submarine gas hydrates: mechanism of formation and accumulation

SE461 **BEN-AVRAHAM, Z.**; HARTNADYB, C.J.H.; RESHEF, M.
The occurrence and origin of a bottom-simulating reflector inthe Natal Valley, off-shore southeastern Africa

SE462 COLWELL, F.S.; DELWICHE, M.; **WEINBERG, D.M.**
Biological activity, relative sediment permeability, and seismic events

Attend the Poster Session

SE48 Gas hydrates in nature: results from geophysical and geochemical studies

Convener: Pecher, I.A.
Co-Convener(s): Kukowski, N.
Friday, 24 April 1998
Lecture Room: R1
Chairperson: Hesse, R.

08:30 MATSUMOTO, R.; LU, H.; HIROKI, Y.; WASEDA, A.; BABA, K.; YAGI, M.; FUJII, T.
Marine gas hydrates and methane rich cold seeps in Nankai Trough, off central Japan (Solicited Paper)

09:00 SAKAI, A.
Broad-band seismic data acquisitions for fine scale imaging and velocity determination associated with BSR

09:15 ROUSSEAU, V.; SAKAI, A.; SINGH, S.C.; MINSHULL, T.A.
Is blanking effect associated with high velocity hydrate bearing sediments above BSR?

09:30 POSEWANG, J.; MIENERT, J.; LUKAS, D.
Double bsrs as indicators for changes in the hydrate stability field on the Norwegian continental margin

09:45 MCGEE, T.
A single-channel seismic reflection method for quantifying lateral variations in BSR reflectivity

10:00 **PECHER, L.A.**; RANERO, C.R.; VON HUENE, R.
BSRs offshore Costa Rica

10:15 VON HUENE, R.; KUKOWSKI, N.; PECHER, I.A.
Neotectonics and the origins of BSRs along the Peru margin

10:30 BREAK

Chairperson: McGee, T.

11:00 **ZATSEPINA, O.Y.**; BUFFETT, B.A.
Two-phase equilibria between hydrate and seawater (Solicited Paper)

11:30 HESSE, R.; FRAPE, S.K.; EGEBERG, P.
Solute transport mechanisms in Blake-Ridge submarine gas-hydrate zone: halogens, chlorine, oxygene and hydrogene isotopes (ODP LEG 164)

11:45 **PIERRE, C.**; ROUCHY, J.M.; GAUDICHET, A.
Stable isotope composition and mineralogy of the diagenetic carbonates associated with the gas hydrates in the sediments of the Blake Ridge (ODP LEG 164)

12:00 WALIA, R.; HANNAY, D.; SPENCE, G.; HYNDMAN, R.; CHAPMAN, R.; MI, Y.
Deep towed multichannel survey to study the gas hydrates offshore Vancouver island

12:15 GANGULY, N.; **SPENCE, G.D.**; CHAPMAN, N.R.; HYNDMAN, R.D.
Heat flow variations from bottom simulating reflectors on the Cascardia margin

12:30 **HANNAY, D.E.**; WALIA, R.; CHAPMAN, N.R.
Analysis of high-resolution deep-tow multichannel data from Vancouver Island gas hydrate sites

12:45 **SCHOLL, D.W.**; HART, P.E.
Geophysical evidence for dense masses of methane hydrate in the deep Bering Sea basin

13:00 END OF SESSION

SE49 Marine magnetics 35 years after Vine-Matthews-Morley discovery (in memory of D. Matthews)

Convener: Dyment, J.
Co-Convener(s): Körner, U.
Tuesday, 21 April 1998
Lecture Room: R9
Co-sponsored by: Inter Ridge
Chairpersons: Dyment, J.; Körner, U.

14:00 DYMENT, J.
Vine-Matthews-Morley anomalies: from satellite to submersible (Solicited Paper)
14:30 RAVILLY, M.; DYMENT, J.; GENTE, P.; THIBAUD, R.
Axial magnetic anomaly amplitudes along the mid-Atlantic ridge between 20° and 40°N
14:50 **PATRIAT, PH.**; ROMMEVAUX-JESTIN, C.; MERCURIEV, S.
Variability of the magnetic anomalies over the slow spreading ridges and their interpretation
15:10 **POULIQUEN, G.**; ROMMEVAUX-JESTIN, C.; PATRIAT, P.
3D magnetic modelling on slow-spreading ridges: importance of end-effects near discontinuities
15:30 **HOREN, H.**; OUFI, O.; CANNAT, M.
How do serpentinized periodities contribute to marine magnetic anomalies?
15:50 **TEBBENS, S.F.**; CANDE, S.C.
Southeast Pacific tectonic evolution since 33 Ma: stepwise midocean triple junction migrations
16:10 Concluding Remarks
16:30 END OF SESSION

SE50 Recent marine geological and geophysical investigation in the Mediterranean and Black Sea

Convener: Ergün, M.
Co-Convener(s): Ivanov, M.K.; Woodside, J.M.
Wednesday, 22 April 1998
Lecture Room: R1
Chairperson: Ergün, M.
Editors: Ergün, M.; Ivanov, M.K.; Woodside, J.M.

Mediterranean Sea

09:00 **BOULOUBASSI, I.**; BLANC-VALLERON, M.-M.;
SE50-001 BAE, S.-H.
Sources of organic matter in Pliocene sapropels from eastern Meditarranean: molecular and sedimentological approach
09:20 **ROSE, TH.**; VILLINGER, H.
SE50-002 Estimating in-situ pore pressure and fluid flow by modelling PUPPI pressure decays from the Mediterranean ridge
09:40 **LELGEMANN, H.**; KLAESCHEN, D.; IMERSE
SE50-003 WORKING GROUP
AVA-analysis across the western Mediterranean ridge
10:00 MASCLE, J.; SHIPBOARD SCIENTIFIC PARTY
SE50-004 New data in eastern Mediterranean from the Prismed II survey (R/V Atalante)
10:20 ERGUN, M.; WOODSIDE, J.M.; ORAL, E.Z.
SE50-005 Geophysical data for the Anaximander mountains
10:40 HALL, J.; AKSU, A.; CALON, T.
SE50-006 Neogene tectonics of the Cyprean Arc region
11:00 BEN-AVRAHAM, Z.
SE50-007 Tectonic setting of the Levant margin
11:20 **IVANOV, M.K.**; WOODSIDE, J.M.
SE50-008 Intensive fluid flow and accompanying phenomena in eastern Mediterranean and Black Sea sediments *
11:40 LUNCH
12:00 Business Meetings

Chairperson: Ivanov, M.K.
Editors: Ergün, M.; Ivanov, M.K.; Woodside, J.M.

Black Sea

14:00 **SARI, C.**; OZEL, E.; ERGUN, M.
SE50-009 Structure of the Black Sea from the geophysical data
14:20 **CIFCI, G.**; KRYLOV, O.; ERGUN, M.
SE50-011 Sonar and seismic investigations in the Sorokhin Trough (SE Crimea, Black Sea)
14:40 BOURIAK, S.V.
SE50-012 Seismic evidence for shallow gas accumulations in the Sorokin trough (north-eastern part of the Black Sea)
15:00 **KOZLOVA, E.**; VOLKONSKAYA, A.
SE50-013 Quaternary sedimentary processes on the northeastern margin of the Black Sea
15:20 YASAR, D.; AKSU, A.; HISCOTT, R.
SE50-014 The importance of the Marmara Sea gateway in paleoceanographic evolution of the Aegean Sea
15:40 **BELENKAYA, I.**; STADNITSKAYA, A.
SE50-015 Authigenic carbonate inclusions in gas saturated sediments of the Black Sea
16:00 **VAN KESTEREN, W.G.M.**; KUYPER, C.;
SE50-016 CROSATO, A.
Seabed stability related to gas phenomena
16:20 **STADNITSKAYA, A.**; BELENKAYA, I.
SE50-017 Gas hydrates in the seabed sediments on the northeastern part of the Black Sea
16:40 END OF SESSION

SE50 Recent marine geological and geophysical investigation in the Mediterranean and Black Sea - Poster Session

Convener: Ergün, M.
Co-Convener(s): Ivanov, M.K.; Woodside, J.M.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Wednesday, 17:30 - 19:00
Poster Area: RHODES - SE
Chairperson: Woodside, J.M.
Editors: Ergün, M.; Ivanov, M.K.; Woodside, J.M.

SE463 KOPF, A.; VIDAL, N.; KLAESCHEN, D.; VON
SE50-018 HUENE, R.
MCS profiles in a zone of incipient collision between Africa and Eurasia, eastern Mediterranean
SE464 CALON, T.; AKSU, A.; HALL, J.
SE50-019 Neogene tectonics of the Cilicia-Adana basin
SE465 AKSU, A.; CALON, T.; HALL, J.
SE50-020 Neogene tectonics of the Latakya basin
SE466 DACHEV, CHR.; **KOSTYANEV, S.**
SE50-021 Some geological results and evolution of the west Black Sea basin

SE467 COMAS, M.C.; FERNANDEZ, M.;
SE50-022 ALVAREZ-MARRON, J.; MARZAN, I.; SOTO, J.I.; YELLES, K.
Heat-flow survey in the south-Balearic and Alboran basins produces new data, the "FLUCALB II" cruise *

SE51 Structures and processes in sedimentary fans - Poster Session

Convener: Uenzelmann-Neben, G.
Co-Convener(s): Droz, L.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - SE

SE469 **RIGAUT, F.**; DROZ, L.; COCHONAT, P.; SAVOYE, B.
Detailed morphological analysis of deep-sea meandering channels: example of the Zaire (Congo) fan channel

SE470 UENZELMANN-NEBEN, G.
Neogene sedimentation history of the Congo Fan

SE471 **CHEVALIER, C.**; LEFEBVRE, J.P.
Study of dynamic of mud bank along the Guiana coast

SE472 **DROZ, L.**; SAVOYE, B.; AUFFRET, G.; SEDIFAN SHIPBOARD SCIENTIFIC PARTY
Celtic deep-sea fan (western Europe): architecture and sedimentary evolution

SE473 **DROZ, L.**; LOUBRIEU, B.; BERNE, S.; COCHONAT, P.; CALMAR SHIPBOARD SCIENTIFIC PARTY
Turbidities of the western Golfe du Lion: relationships between Pyreneo-Languedocian and Rhone inputs

SE474 **BELLAICHE, G.**; MASCLE, J.; DROZ, L.; GAULLIER, V.; MART, Y.; SHIPBOARD SCIENTIFIC PARTY
The Nile deep-sea fan: preliminary results of the Prismed II cruise (R/V Atalante)

SE51 Structures and processes in sedimentary fans

Convener: Uenzelmann-Neben, G.
Co-Convener(s): Droz, L.
Friday, 24 April 1998
Lecture Room: R1
Chairperson: Uenzelmann-Neben, G.

14:00 PIPER, D.J.W.
Controls on fans architecture and deposits by turbidity current initiation processes (Solicited Paper)

14:30 **SAVOYE, B.**; GUIOMAR, M.; REHAULT, J.P.
Seismic architecture of a small deep-sea fan (east Corsica margin, western Mediterranean)

14:45 **DOS REIS, T.**; MAUFFRET, A.; GORINI, C.
Salt tectonics growth fault pattern in the Gulf of Lion Plio - quaternary/France

15:00 PIPER, D.J.W.; FLOOD, R.D.
Synthesis of results from ODP LEG 155, Amazon fan

15:15 SCHLÜNZ, B.; SCHNEIDER, R.R.; MÖLLER, P.J.
Terrestrial organic carbon accumulation on the Amazon deep sea fan during the last glacial sea level low stand

15:30 WHITTINGTON, R.J.; FORSBERG, C.-F.; DOWDESWELL, J.A.
Holocene fjord side-wall fan deltas in Kongsfjorden, Spitsbergen

15:45 HÜBSCHER, C.; BREITZKE, M.; SPIESS, V.
A high-resolution reconnaissance seismic survey in the Bengal Fan

16:00 END OF SESSION

SE52 Spontaneous globally synchronized variations of physical parameters (co-sponsored by G)

Convener: Rokityansky, I.I.
Co-Convener(s): Denis, C.; Varga, P.
Monday, 20 April 1998
Lecture Room: R1
Chairperson: Denis, C.
Editors: Rokityansky, I.I.; Klyushin, J.G.

14:00 ROKITYANSKY, I.I.
SE52-001 Phenomenon of spontaneous globally synchronized variations of physical parameters (SV)

14:20 **SHNOLL, S.E.**; AGULOVA, L.P.; KOLOMBET,
SE52-002 V.A.; ZAIKIN, A.N.; POZHARSKI, E.V.; ZENCHENKO, T.A.; KONRADOV, A.A.
On the similarity of histograms fine structure for synchronized time series of different nature processes at different locations (Solicited Paper)

14:50 VARGA, P.
SE52-003 Study of the temporal variation of the gravitational constant

15:10 KLYUSHIN, J.G.
SE52-004 On the Maxwell approach to gravity

15:30 RUDENKO, V.N.
SE52-005 Reliability of the neutrino-gravity correlation effect during of the SN1987A explosion: a statistical miracle or physical reality?

15:50 ZVEREVA, I.M; **ZENCHENKO, T.A.**;
SE52-006 POZHARSKI, E.V.; SHNOLL, S.E.
On the synchronized changes of histograms fine structure for time series of radium familiy isotopes activity (Poster)

15:55 KLYUSHIN, J.G.
SE52-007 Forces originating ocean flows (Poster)

16:00 MALIMON, A.N.
SE52-008 The wave equations for oscillator with Planck's constant and force quantum (Poster)

16:05 KLYUSHIN, J.G.
SE52-009 A force produced on static electric charge by current in neutral conductor (Poster)

16:10 SMIRNOV, A.P.
SE52-010 A new class of phenomena in natural processes and technologies (Poster)

16:15 DENIS, C.; ROKITYANSKY, I.I.
Concluding remarks

16:30 END OF SESSION

17:00 Opening

19:30 Reception

SE52 Spontaneous globally synchronized variations of physical parameters (co-sponsored by G) - Poster Session

Convener: Rokityansky, I.I.
Co-Convener(s): Denis, C.; Varga, P.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - SE
Chairperson: Varga, P.
Editors: Rokityansky, I.I.; Klyushin, J.G.

SE342 ZVEREVA, I.M; **ZENCHENKO, T.A.**;
SE52-006 POZHARSKI, E.V.; SHNOLL, S.E.
On the synchronized changes of histograms fine structure for time series of radium familiy isotopes activity

SE343 KLYUSHIN, J.G.
SE52-007 Forces originating ocean flows

SE344 MALIMON, A.N.
SE52-008 The wave equations for oscillator with Planck's constant and force quantum

SE345 KLYUSHIN, J.G.
SE52-009 A force produced on static electric charge by current in neutral conductor

SE346 SMIRNOV, A.P.
SE52-010 A new class of phenomena in natural processes and technologies

SE347 ROKITYANSKY, I.I.
SE52-011 Sensors and sources of spontaneous variations (SV) of physical parameters

SE348 KLYUSHIN, J.G.
SE52-012 On the forces between two moving electric charges

SE349 SHLIENOV, A.G.
SE52-013 Results of observation of extragalactic objects

SE350 KUDELYA, L.
SE52-014 Oscillator variations in time and spatial displacement

SE351 LAVRENTEV, M.M.; **EGANOVA, I.A.**
SE52-015 Physical anomalies connected with the Sun

SE352 LAVRENTEV, M.M.; **EGANOVA, I.A.**
SE52-016 Some anomalies on the Earth in the time of Jovian catastrophe

SE352A EGANOVA, I.A.
SE52-017 Some characters of variations of the geological objects' weight

SE352B SHNOLL, S.E.; POZHARSKI, E.V.;
SE52-018 KOLOMBET, V.A.; ZVEREVA, I.M.; ZENCHENKO, T.A.; KONRADOV, A.A.
On the discreteness of different processes time series measurements which results from cosmophysical sources

SE352C POZHARSKI, E.V.
SE52-019 Histogram form recognition: algorithms and software

European Geophysical Society

Inviting the scientists of the world to participate in the

Millennium Conference on Earth, Planetary & Solar Systems Sciences

- 25th General Assembly -

Fortezza da Basso, Florence, Italy
3-7 April 2000

Join this unique celebration of the past and the new millennium in the capital of Renaissance and in the beauty of Tuscany.

Suggestions regarding the scientific programme and any inquiries should be addressed to:

EGS Office
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

Tel: +49-5556-1440
Fax: +49-5556-4709
EGS@COPERNICUS.ORG
http://www.copernicus.org/EGS/EGS.html

Geodesy

G1 Environmental effects on gravity and intercomparisons with other techniques - Poster Session

Convener: Hipkin, R.G.
Co-Convener(s): van Dam, T.M.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 2 - G

G081 QIU QI-XIAN; **MÄKINEN, J.**; DAI QI-CHAO; JIN YI-SHENG
Influence of variations in subsurface water storage on gravity at the Xi'an absolute gravity station

G082 MALIKOVA, K.SH.; KLAVDIEVA, M.M.; BEKLEMISHEV, A.B.; POTAPOV, O.A.
Microtremor spectrum dynamics, geochemical and gravity data in the monitoring of the intraplate fracture zones

G1 Environmental effects on gravity and intercomparisons with other techniques

Convener: Hipkin, R.G.
Co-Convener(s): van Dam, T.M.
Wednesday, 22 April 1998
Lecture Room: R7
Chairperson: N.N.

14:00 **KLOSKO, S.**; TORRENCE, M.; CHAO, B.
Secular and periodic geopotential changes observed with SLR

14:15 **DAVIES, M.A.**; HARROP, N.D.; RYMER, H.
Experimental investigation into the origin of tares induced by ground vibration in Lacoste & Romberg gravity meters

14:30 **BONVALOT, S.**; DIAMENT, M.; GABALDA, G.
Continuous gravity recording with Scintrex CG-3M meters: a promising tool for monitoring active zones

14:45 **BAKER, T.F.**; BOS, M.S.; HOPEWELL, H.
The effects of ocean and shelf tides on absolute gravity measurements

15:00 **VAUTERIN, P.**; VAN DAM, T.; FRANCIS, O.
The correction of the pressure effects for the superconducting gravimetersin Membach, Belgium and Boulder, Colorado (Solicited Paper)

15:30 **KRONER, C.**; JAHR, TH.; JENTZSCH, G.
Time-dependent gravity and environmental observations at Moxa observatory: first results

15:45 **NEUMEYER, J.**; BARTHELMES, F.; WOLF, D.
Estimates of environmental effects in superconducting gravimeter data

16:00 **VIRTANEN, H.**; KÄÄRIÄINEN, J.
Non-tidal gravity variations observed by superconducting gravimeter GWR T020

16:15 RICHTER, B.; HARNISCH, M.; HARNISCH, G.; SCHWAHN, W.
Air pressure and groundwater effects at fiducial sites seen by continuous gravimeter registrations

16:30 **SCHEINERT, M.**; DIETRICH, R.
Gravity observations in Greenland: how to separate environmental effects and ice mass balance signals (Solicited Paper)

17:00 GERSTENECKER, C.
Influence of topography and ground water changes on secular gravity changes

17:15 END OF SESSION

G2 Recent crustal movements of coastal regions: new geodetic, geologic and geophysical results

Convener: Pirazzoli, P.A.
Co-Convener(s): Bastos, L.
Wednesday, 22 April 1998
Lecture Room: R8
Co-sponsored by: IGCP (UNESCO-IUGS) Project 367 "Rapid Coastal Changes in the Late Quaternary"; INQUA Commission on Neotectonics; INQUA Commission on Quaternary Shorelines
Chairpersons: Pirazzoli, P.A.; Bastos, L.
Editors: Bastos, L., Pirazzoli, P.A.

09:00 PELTIER, W.R.
G2-001 Postglacial sea level history and coastal tectonics (Solicited Paper)

09:30 **KOOI, H.**; JOHNSTON, P.; LAMBECK, K.;
G2-002 SMITHER, C.; MOLENDIJK, R.E.
Natural causes of recent (~100 yr) vertical land movement in the Netherlands

09:50 KIDEN, P.; DENYS, L.
G2-003 Rate and magnitude of late quaternary isostatic movements in the southern North Sea

10:10 **GRANJA, H.**; SENOS MATIAS, M.; RIBEIRO, I.;
G2-004 SOARES DE CARVALHO, G.
Some neotectonic indicators in quaternary formations of the northwest coastal zone of Portugal

10:30 **ANTONIOLI, F.**; SILENZI, S.; VITTORI, E.
G2-005 Sea level changes and tectonic stability: precise measurements in 3 coastlines of Italy considered stable during last 125 ky

10:50 ANTONIOLI, F.; CREMONA, G.; IMMORDINO,
G2-006 F.; PUGLISI, C.; ROMAGNOLI, C.; SILENZI, S.; **VALPREDA, E.**; VERRUBBI, V.
Quanternary and holocene differential movements in a Mediterranean coastal area (S. Vito Lo Capo - Sicily - Italy)

11:10 **MORHANGE, C.**; BOURCIER, M.; GOIRAN, J.P.;
G2-007 LABOREL, J.; BATS, M.; GIALANELLA, C.; GRIMACO, L.
Recent vertical crustal movements in Pozzuoli, phlegrean fields Caldera, southern Italy

11:30 **STIROS, S.C.**; PIRAZZOLI, P.A.
G2-008 Value of biological indicators to detect relative sea-level changes: a geodetic confirmation

11:50 LUNCH
12:00 Business Meetings

Attend the Business Meeting of your Section

On Wednesday, 22 April, 12.00-14.00 in Lecture Room R5

Chairpersons: Bastos, L.; Pirazzoli, P.A.
Editors: Pirazzoli, P.A., Bastos, L.

14:00 **ASHKENAZI, V.**; BINGLEY, R.M.; BOOTH, S.J.;
G2-009 PENNA, N.T.; GREENAWAY, R.G.; NURSEY, K.; BEDLINGTON, D.; ELLISON, R.A.; ARTHURTON, R.S.
Geodetic and geological monitoring of long term crustal movements in the Thames Estuary and Greater London
14:20 BECKER, M.; GARATE, J.; NEUMAIER, P.;
G2-010 RICHTER, B.; BÜRKI, B.
First results for crustal motion and tide gauge position variation at the coast of Spain from the SELF-II project
14:40 **TALAYA, J.**; FEIGL, K.; TERMENS, A.;
G2-011 COLOMINA, I.
Practical lessons from analysis of a GPS network designed to detect movements of ≈ 1 mm/y in the eastern Pyrenees
15:00 **PAGARETE, J.**; MENDES, V.B.
G2-012 Global positioning system crustal deformation studies in the lower Tagus valley area from 1994 to 1997
15:20 **SIMONS, W.J.F.**; HAJI ABU, S.; AMBROSIUS,
G2-013 B.A.C.; BOCK, Y.; KAHAR, J.; MORGAN, P.; NOOMEN, R.; SARSITO, D.A.; SUTISNA, S.; WALPERSDORF, A.
Results of the Sulawesi 1997 GPS campaign
15:40 CAPRA, A.; GANDOLFI, S.; STOCCHINO, C.;
G2-014 VITTUARI, L.
Kinematic GPS for the study of tidal undulation of floating ice tongues
16:00 **PIRAZZOLI, P.A.**; STIROS, S.C.; ARNOLD, M.;
G2-015 LABOREL, J.; LABOREL-DE GUEN, F.
Late Holocene coseismic vertical displacements and tsunami deposits near Kynos, Gulf of Euboea, central Greece *
16:20 BASTOS, L.
Concluding remarks
16:30 END OF SESSION

G3 Geophysical applications of radar interferometry

Convener: Massonnet, D.
Co-Convener(s): Feigl, K.
Monday, 20 April 1998
Lecture Room: R9
Co-sponsored by: CNES, CNRS
Chairperson: Massonnet, D.

11:00 **AMELUNG, F.**; ZEBKER, H.; SEGALL, P.
Surface deformation measurements of volcanoes using SAR-interferometry
11:15 DE CHABALIER, J.B.; RUEGG, J.C.; **ARMIJO, R.**; MASSONNET, D.; FRUNEAU, B.; VADON, H.; DELACOURT, C.; CAMPOS, J.
Modelling the deformation related to the MW=8.1 Antofagasta earthquake of northern Chile (1995) using SAR interferometry and GPS measurements
11:30 **KLINGER, Y.**; MICHEL, R.; AVOUAC, J.P.; DORBATH, L.
Investigation of the MW=7.3 Aqaba earthquake of Nov. 22, 1995 from seismology and interferometry
11:45 **HERNANDEZ, B.**; COTTON, F.; CAMPILLO, M.
What is the resolving power of interferometric data to constrain slip distribution of earthquakes at depth?
12:00 **HUOT, E.**; HERLIN, I.
Land-surface monitoring using interferometric phase
12:15 MASSONNET, D.; **GAUDIN, J.C.**
A time-domain processor for generating SAR images as half-interferograms
12:30 **CALAIS, E.**; COURBOULEX, F.; COTTON, F.
SAR interferometry study of the M8.0 Oct. 9, 1995, Jalisco earthquake (Mexico)
12:45 Concluding Remarks
13:00 END OF SESSION

G3 Geophysical applications of radar interferometry - Poster Session

Convener: Massonnet, D.
Co-Convener(s): Feigl, K.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 2 - G
Chairperson: Feigl, K.

G083 **GASPERI, J.**; FEIGL, K.L.; SIGMUNDSSON, F.; RIGO, A.
Satellite radar interferometry in the southern Icland seismic zone: initial results
G084 **HENRIOT, O.**; VILLEMIN, T.; JOUANNE, F.
Surface deformation at the Tjörnes rift-transform junction (north Iceland) computed from SAR images
G085 **FEIGL, K.L.**; RIGO, A.; COTTON, F.
Satellite radar interferometry in the French Alps: initial results
G086 **RIGO, A.**; MASSONNET, D.
SAR interferometry on the St-Paul de Fenouillet earthquake (18 February 1996; ML=5.2; Pyrenees, France): separating atmospheric and coseismic signatures
G087 **FRUNEAU, B.**; RUDANT, J.-P.; CLASSEAU, N.
Does the effect of pollution as atmospheric inhomogeneities introduce phase shifts in SAR interferograms on urban sites?
G088 **DESPAN, D.**; BEDIDI, A.; RUDANT, J.-P.; NESTI, G.; TARCHI, D.; BACHELIER, E.; BORDERIE, P.
Moisture effect on phase and amplitude of backscattered microwave signal from soil surfaces

G4 Precise satellite orbits for geophysical applications - Poster Session

Convener: Rothacher, M.
Co-Convener(s): Eanes, R.J.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - G
Chairpersons: Rothacher, M.; Eanes, R.J.

G047 **ZIQUING, W.**; GANG, W.
Regional GPS orbit determination

G048 RIES, J.C.; EANES, R.J.; METRIS, G.; VOKROUHLICKY, D
Eccentricity excitations of LAGEOS and LAGEOS-2

G049 **CATALAN M., M.**; CATALAN P.-U., M.
A short arc orbit method for altimeter satellite with laser reflectors

G050 **ENNINGHORST, K.**; RENTSCH, M.
Rapid orbit and altimeter products for ERS-2

G051 METRIS, G.
Derivatives of the gravity potential with respect to rectangular coordinates and applications

G052 **CHEN, Z.**; KÖNIG, R.
On GFZ-1, DIADEME-IC and DIADEME-1D orbit and gravity field modelling

G053 **SOUDARIN, L.**; CRETAUX, J.F.; BOUILLE, F.; CAZENAVE, A.
Present-day tectonic motions and crustal deformations from the DORIS space system

G054 PEROSANZ, F.; BIANCALE, R.
STAR accelerometer in-flight dynamic calibration in the frame of the CHAMP geodetic mission

G4 Precise satellite orbits for geophysical applications

Convener: Rothacher, M.
Co-Convener(s): Eanes, R.J.
Friday, 24 April 1998
Lecture Room: R8
Chairperson: Rothacher, M.

08:30 **BAR-SEVER, Y.E.**; JEFFERSON, D.C.
Precise GPS orbit modelling for geodesy - review and error analysis (Solicited Paper)

09:00 KOUBA, J; **MIREAULT, Y.**; BEUTLER, G.; SPRINGER, T.; GENDT, G.
Impact of international GPS service for geodynamics in geodetic and geophysical applications

09:15 **SPRINGER, T.A.**; BEUTLER, G.; ROTHACHER, M.
Impact of the improved GPS orbit model

09:30 KIRCHENGAST, G.
Orbit quality requirements for spaceborne atmospheric sounding using GNSS

09:45 EANES, R.
Sub-centimeter lageos orbit determination: techniques, models, and applications

10:00 **LEMOINE, J.M.**; ROZANES, P.; BIANCALE, R.
Some geophysical results from the analysis of eleven years of LAGEOS1 data using the linking technique

10:15 **CRETAUX, J.F.**; SOUDARIN, L.; CAZENAVE, A.
Vertical rates of the DORIS station

10:30 BREAK

Chairperson: Eanes, R.J.

11:00 LEMOINE, F.G.
Precise orbit determination for TOPEX/POSEIDON, the challenge, the history, and the impact (Solicited Paper)

11:30 LOUGH, M.; **HAINES, B.**; MUELLERSCHOEN, R.; LICHTEN, S.; WATKINS, M.
GPS-based precise orbit determination for altimetric satellites

11:45 **BLESA, F.**; PALACIOS, M.; FERRER, S.
Improving the first harmonics of the Earth geopotential by using SLR data to Etalon and GPS satellites

12:00 **SCHARROO, R.**; VISSER, P.
A new gravity field model for the ERS missions

12:15 **BORDI, J.J.**; EANES, R.J.; RIES, J.R.; TAPLEY, B.D.
Analysis of the Precise Range and Range-rate Equipment (PRARE) and its application to precise orbit determination

12:30 **ENNINGHORST, K.**; BEDRICH, S.; FLECHTNER, F.; TEUBEL, A.
The motion of the PRARE-station Neumayer located on a floating ice-shelf in Antarctica

12:45 COX, C.M.; CHINN, D.S.; LUTHCKE, S.B.; LEMOINE, F.G.
Precision orbit determination of the tropical rainfall measurement mission using TDRSS with application to geopotential model improvement

13:00 LEMOINE, F.G.; COX, C.M.; CHINN, D.S.; PAVLIS, N.K.; WANG, Y.M.; TORRENCE, M.H.; WILLIAMSON, R.G.; PAVLIS, E.C.
Improved Earth gravity solutions derived from TDRSS tracking

13:15 VESPE, F.; DEVOTI, R.; LUCERI, V.
A detailed modelling of the solar radiation pressure acting on Earth satellites of complex shape

13:30 END OF SESSION

G5 Ocean modelling from altimetry and remote sensing (co-sponsored by OA) I

Convener: Knudsen, P.
Co-Convener(s): Le Traon, P.Y.
Thursday, 23 April 1998
Lecture Room: R7
Chairperson: Hernandez, F.
Editors: Knudsen, P.; Le Traon, P.-Y.

08:45 KNUDSEN, P.; LE TRAON, P.Y.
Introduction

Altimeter data and assimilation

09:00 **MASINA, S.**; NAVARRA, A.; PINARDI, N.;
G5-001 MASETTI, E.
The AGORA project: 16 years of global ocean analyses for studies of climate variability (Solicited Paper)

09:30 **FOX, A.D.**; HAINEES, K.; DE CUEVAS, B.A.
G5-002 Satellite data assimilation in the OCCAM global ocean model

09:45 **SEGSCHNEIDER, J.**; ALVES, O.; ANDERSON,
G5-003 D.; BALMASEDA ALONSO, M.; STOCKDALE, T.
Assimilation of Topex/Poseidon data into a seasonal forecast system

10:00 BAHUREL, P.; GIRAUD, S.; **DOMBROWSKY, E.**
G5-004 Assimilation of TOPEX POSEIDON and ERS altimeter data from 1993 to 1998 in the northeast Atlantic

10:15 **LARNICOL, G.**; LE TRAON, P.Y.; MERCIER, H.
G5-006 Large scale seasonal variations of Atlantic Ocean by combining altimetric and hydrographic data in an inverse model

10:30 BREAK

Chairperson: Le Traon, P.-Y.
Editors: Knudsen, P.; Le Traon, P.-Y.

11:00 **VEERSE, F.**; OUBERDOUS, M.
G5-005 Assimilation of altimetric data in an ocean model for fisheries studies in upwelling areas
11:15 LYARD, F.H.
G5-007 A variational assimilation model for the barotropic tides in a global ocean: principles and application to the long period tides
11:30 **GAVART, M.**; DE MEY, P.; BARAILLE, R.
G5-008 Altimetric assimilation into primitive equations models of the Azores-Madeira region: comparison between OPA and MICOM (Poster)
11:35 ARNAULT, S.; **GREINER ,E.**
G5-009 Topex-Poseidon data assimilation in an oceanic general circulation model of the tropical Atlantic (Poster)
11:40 **DARR, D.**; THOMPSON, L.A.; KELLY, K.A.;
G5-010 VIVIER, F.
Modelling wind-forced seasonal-to-interannual variability of sea surface height in the North Pacific (Poster)
11:45 **KURAPOV, A.L.**; KIVMAN, G.A.
G5-011 General inverse of a shelf tide model: application to the M_2 tide in the Barents Sea (Poster)

Modelling and satellite altimetry data processing

11:50 **PONTE, R.M.**; GASPAR, P.
G5-012 Regional analysis of the inverted barometer effect over the global ocean (Solicited Paper)
12:20 **BIROL, F.**; MORROW, R.
G5-013 A study of the south-east Indian Ocean variability from altimetric, wind and XBT data
12:35 **HAN, G.**; TANG, C.L.
G5-014 Velocity and transport of the Labrador current determined from altimetric and hydrographic data
12:50 LUNCH

Chairperson: Knudsen, P.
Editors: Knudsen, P.; Le Traon, P.-Y.

14:00 **BOSCH, W.**; BOCK, J.
G5-015 The 1996 sea surface height anomaly of the North Atlantic subpolar gyre
14:15 GLAZMAN, R.E.
G5-016 Altimeter-based refinement of turbulent diffusion coefficients
14:30 SCOTT, R.B.
G5-017 Mechanical energy flux to the surface geostrophic flow using TOPEX/POSEIDON data
14:45 VILLARES, P.; ROJAS, J.L.; CATALAN P.-U., M.;
G5-018 CAMACHO, J.C.; GOMEZ-ENRI, J.; CATALAN M., M.
Surface meddies tracking using spatial techniques
15:00 **HERNANDEZ, F.**; TYCHENSKY, A.
G5-019 Synthetic geoid for mesoscale studies of the Azores current
15:15 **PEACOCK, N.R.**; LAXON, S.W.; SCHARROO,
G5-020 R.; MASLOWSKI, W.
Applications of high accuracy altimetric height measurements in ice covered seas to studies of the polar oceans, and comparisons with models
15:30 **LEEUWENBURGH, O.**; ANDERSEN, O.;
G5-021 HUESS, V.
Seasonal tide variations and shallow water tides from tide gauges and altimetry
15:45 **KLOKOCNIK, J.**; WAGNER, C.A.;
G5-022 KOSTELECKY, J.; RENTSCH, M.
Residual errors in dual-satellite crossover altimetry data: an independent check
16:00 MORROW, R.
G5-023 Interannual variability in the eastern Indian Ocean (Poster)
16:05 LEBEDEV, S.A.
G5-024 The diagnostic analysis of baroclinic ocean dynamics by satellite altimetry data (Poster)
16:10 **MARTINEZ BENJAMIN, J.J.**; GUASCH, A.;
G5-025 SARIFFENA, D.; CORREDOR, R.
Application of Topex/Poseidon altimmeter data for CEOF and along-track analysis in the eastern Atlantic Ocenan and western Mediterranean Sea (Poster)
16:15 **SCHARROO, R.**; NAEIJE, M.; OLDENBORG,
G5-026 G.J.; BURGERS, G.; CARDON, K.; GORYL, P.; BENVENISTE, J.
Monitoring the 1997/1998 El Nino by ERS-2 (Poster)
16:20 BOSCH, W.; **SCHMIDT, M.**
G5-027 EOF- and wavelet analysis of the sea surface variability (Poster)
16:25 KNUDSEN, P.
G5-028 High resolution mean sea surfaces from multi mission satellite altimetry (Poster)
16:30 KNUDSEN, T.
G5-029 An integrated system for handling, analysis and visualization of ocean data (Poster)
16:35 **PAULUHN, A.**; CHAO, Y.
G5-030 Tracking eddies in the subtropical north-western Atlantic Ocean (Poster)
16:40 **BAUMGARTNER, M.**; BOSCH, W.; BOCK, J.;
G5-031 SCHMIDT, M.
North Atlantic sea surface variability - a comparison between altimetry and numerical modelling (Poster)
16:45 GILLE, S.T.
G5-032 Evaluating southern ocean response to wind forcing (Poster)
16:50 END OF PART I

G5 Ocean modelling from altimetry and remote sensing (co-sponsored by OA) - Poster Session

Convener: Knudsen, P.
Co-Convener(s): Le Traon, P.Y.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - G
Chairperson: Knudsen, P.
Editors: Knudsen, P.; Le Traon, P.-Y.

G055 **GAVART, M.**; DE MEY, P.; BARAILLE, R.
G5-008 Altimetric assimilation into primitive equations models of the Azores-Madeira region: comparison between OPA and MICOM
G056 ARNAULT, S.; **GREINER ,E.**
G5-009 Topex-Poseidon data assimilation in an oceanic general circulation model of the tropical Atlantic

G057 **DARR, D.**; THOMPSON, L.A.; KELLY, K.A.; VIVIER, F.
G5-010 Modelling wind-forced seasonal-to-interannual variability of sea surface height in the North Pacific

G058 **KURAPOV, A.L.**; KIVMAN, G.A.
G5-011 General inverse of a shelf tide model: application to the M_2 tide in the Barents Sea

G059 MORROW, R.
G5-023 Interannual variability in the eastern Indian Ocean

G060 LEBEDEV, S.A.
G5-024 The diagnostic analysis of baroclinic ocean dynamics by satellite altimetry data

G061 **MARTINEZ BENJAMIN, J.J.**; GUASCH, A.; SARIFFENA, D.; CORREDOR, R.
G5-025 Application of Topex/Poseidon altimmeter data for CEOF and along-track analysis in the eastern Atlantic Ocenan and western Mediterranean Sea

G062 **SCHARROO, R.**; NAEIJE, M.; OLDENBORG, G.J.; BURGERS, G.; CARDON, K.; GORYL, P.; BENVENISTE, J.
G5-026 Monitoring the 1997/1998 El Nino by ERS-2

G063 BOSCH, W.; **SCHMIDT, M.**
G5-027 EOF- and wavelet analysis of the sea surface variability

G064 KNUDSEN, P.
G5-028 High resolution mean sea surfaces from multi mission satellite altimetry

G065 KNUDSEN, T.
G5-029 An integrated system for handling, analysis and visualization of ocean data

G066 **PAULUHN, A.**; CHAO, Y.
G5-030 Tracking eddies in the subtropical north-western Atlantic Ocean

G067 **BAUMGARTNER, M.**; BOSCH, W.; BOCK, J.; SCHMIDT, M.
G5-031 North Atlantic sea surface variability - a comparison between altimetry and numerical modelling

G068 GILLE, S.T.
G5-032 Evaluating southern ocean response to wind forcing

G069 **DADOU, I.**; GARCON, V.
G5-036 Mescoscale variability of chlorophyll and SST in the confluence of the Brazil and Malvinas currents from satellite data

G069A **TYLER, R.H.**; SANFORD, T.B.; OBERHUBER, J.M.
G5-037 The potential for using ocean generated electromagnetic fields to remotely sense ocean variability

---

Physics and Chemistry of the Earth

If you intend to organize an event at a larger meeting, a workshop or topical conference within geology, geochemistry, geophysics, hydrology, oceanography or atmospheric and planetary and space sciences, please consider *PCE* for the publication of your proceedings.

G5 Ocean modelling from altimetry and remote sensing (co-sponsored by OA) II

Convener: Knudsen, P.
Co-Convener(s): Le Traon, P.Y.
Friday, 24 April 1998
Lecture Room: R7
Chairperson: Knudsen, P.
Editors: Knudsen, P.; Le Traon, P.-Y.

Other remote sensing techniques

09:00 MACHU, E.; GARCON, V.
G5-033 Long term monitoring of the oceanic primary production south of South Africa: use of the remotely sensed data

09:15 **LIFERMANN, A.**; DESCHAMPS, P.Y.;
G5-034 BRICAUD, A.; GARCON, V.; DADOU, I.
POLDER on ADEOS: a new ocean color dataset to combine with altimetry

09:30 **LI, H.-W.**; KUO, N.-J.; HO, C.-R.; TSAI, W.-P.
G5-035 Bio-optical empirical models of the waters adjacent to Taiwan

09:45 **DADOU, I.**; GARCON, V.
G5-036 Mescoscale variability of chlorophyll and SST in the confluence of the Brazil and Malvinas currents from satellite data (Poster)

09:50 **TYLER, R.H.**; SANFORD, T.B.; OBERHUBER,
G5-037 J.M.
The potential for using ocean generated electromagnetic fields to remotely sense ocean variability (Poster)

09:55 END OF SESSION

G6 High resolution monitoring of land and ice surface with altimetry and SAR interferometry

Convener: Klees, R.
Co-Convener(s): Remy, F.
Thursday, 23 April 1998
Lecture Room: R5
Chairperson: Remy, F.

09:00 ROTT, H.; SCHEUCHL, B.; SIEGEL, A.
Small-scale motion in alpine regions by means of ERS SAR interferometry (Solicited Paper)

09:30 METZIG, R.; DACH, R.; DIETRICH, R.; HARTMANN, R.; KORTH, W.; PERLT, J.; WINZER, W.
ERS-1&2 tandem mission InSAR data of Antarctica - glaciological application and assessment of accuracy

09:45 **XIA, Y.**; REIGBER, CH.; KLOTZ, M.J.; ANGERMANN, D.
Crustal deformation monitoring in the Antofagasta region

10:00 CARNEC, C.; FABRIOL, H.; GLOWACKA, E.; ARELLANO, F.
Land subsidence measurements at Cerro Prieto geothermal field (Baja California, Mexico) using SAR interferometry

10:15 NIELSEN, C.S.; FORSBERG, R.; KELLER, K.; MOHR, J.J.
Topography and surface flow of the Geikie ice cap derived from SAR interferometry, laster altimetry and GPS measurements
10:30 BREAK

Chairperson: Remy, F.

11:00 **LEGRESY, B.**; REMY, F.; SCHAEFFER, P.
Satellite radar altimetric survey of the polar ice caps and wind induced features (Solicited Paper)
11:30 **TESTUT, L.**; REMY, F.
Ice sheet rheology features derived from ERS-1 precise topography
11:45 **BERRY, P.A.M.**; THORNTON, S.R.; FEATHERSTONE, W.E.
Accuracy assessment of altimeter derived orthometric heights using regional digital elevation models
12:00 DOWNSON, M.; **BERRY, P.A.M.**
Near-global crossover analysis of ERS-1 altimeter data over land
12:15 Concluding Remarks
12:30 END OF SESSION

G6 High resolution monitoring of land and ice surface with altimetry and SAR interferometry - Poster Session

Convener: Klees, R.
Co-Convener(s): Remy, F.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - G

G001 **SCHAEFFER, P.**; REMY, F.; LEGRESY, B.; TESTUT, L.
High-resolution Antarctica topography and surface features computed with altimeter data of the geodetic ERS-1 mission

G7 Joint EGS/AGU symposium on geodetic observation and geophysical interpretation of mass movements in the Earth system (co-sponsored by SE) Introduction

Conveners: Dickey, J.O.; Reigber, Ch.
Monday, 20 April 1998
Lecture Room: R5
Chairpersons: Dickey, J.O.; Reigber, Ch.

08:30 **RUMMEL, R.**; GERSTL, M.
On the possible interference of datum effects of geodetic models with temporal changes of geophysical parameters (Solicited Paper)
09:00 **REIGBER, CH.**; LÜHR, H.
CHAMP - the next mission for major improvement in recovering the geopotentials (Solicited Paper)
09:30 TAPLEY, B.D.
The gravity recovery and climate experiment (GRACE) (Solicited Paper)
10:00 SÜNKEL, H.
GOCE - the gravity field and steady state ocean circulation mission of ESA (Solicited Paper)
10:30 BREAK

G7 Joint EGS/AGU symposium on geodetic observation and geophysical interpretation of mass movements in the Earth system (co-sponsored by SE) .1 Solid Earth and core

Convener: Richter, B.
Monday, 20 April 1998
Lecture Room: R5
Chairperson: Richter, B.

10:45 **FORTE, A.M.**; MITROVICA, J.X.
Impact of mantle convection on Earth orbit parameters and paleoclimate (Solicited Paper)
11:15 SABADINI, R.
Subduction and continental collision in the Mediterranean region (Solicited Paper)
11:45 **HINDERER, J.**; BOY, J.P.
The influence of atmospheric mass redistributions on gravity (Solicited Paper)
12:15 BASTOS, L.; OSORIO, J.; LAZARO, C.; KAKKURI, J.; **MÄKINEN, J.**; ALVES, M.; VIEIRA, R.; HEIN, G.
Repeated gravity measurements in the Azores 1992-1997
12:30 **MÜLLER, J.**; SNEEUW, N.
Error sources for gravity field missions in space and their effect on the final results
12:45 BASIC, T.; BACIC, Z.
Results of GPS observations during the series of earthquakes in Ston region at Croatian southern Adriatic Coast in September 1996
13:00 LUNCH

Chairperson: Richter, B.

14:00 JOCHMANN, H.
Climate cycles in gravity field variations
14:15 BARKIN, YU.V.
Some effects in perturbed motion of the Earth's rigid core
14:30 END OF SUB-SESSION

G7 Joint EGS/AGU symposium on geodetic observation and geophysical interpretation of mass movements in the Earth system (co-sponsored by SE) .2 Ocean and hydrosphere

Convener: Chao, B.F.
Monday, 20 April 1998
Lecture Room: R5
Chairperson: Chao, B.F.

14:30 LAGERLOEF, G.S.E., **WAHR, J.M.**; BRYAN, F.
Impact of GRACE gravity mission on ocean studies (Solicited Paper)
15:00 KNUDSEN, P.; ANDERSEN, O.B.
Estimates of large scale changes of mass in the oceans from satellites (Solicited Paper)

15:30 CHEN, J.L.; **WILSON, C.R.**; CHAMBRES, D.P.; NEREM, R.S.; TAPLEY, B.D.
TOPEX/Poseidon observation and global water mass balance (Solicited Paper)
16:00 **WAHR, J.M.**; VAN DAM, T.
Geodesy and hydrology (Solicited Paper)
16:30 **JOHNSON, T.J.**; WILSON, C.R.
The role of ocean variability in the Earth's gravity field as predicted from the Parallel Ocean Climate model
16:45 **CAZENAVE, A.**; PONCHAUT, F.
Temporal variations of continental lakes level from Topex/Poseideon (1993-1996)
17:00 END OF SUB-SESSION
17:00 Opening
19:30 Reception

G7 Joint EGS/AGU symposium on geodetic observation and geophysical interpretation of mass movements in the Earth system (co-sponsored by SE) .3 Cryosphere

Convener: Dietrich, R.
Tuesday, 21 April 1998
Lecture Room: R5
Chairperson: Dietrich, R.

08:30 DOAKE, CH.
Review of SAR applications in Antarctic glaciological research (Solicited Paper)
09:00 SCHUTZ, B.E.
Spaceborne laser altimetry for cryosphere applications (Solicited Paper)
09:30 DIETRICH, R.; DACH, R.; KORTH, W.; METZIG, R.; PERLT, J.
Monitoring ice dynamics in the coastal region of Dronning Maud Land/Atnarctica with combination of space and surface geodetic methods
09:45 END OF SUB-SESSION

G7 Joint EGS/AGU symposium on geodetic observation and geophysical interpretation of mass movements in the Earth system (co-sponsored by SE) .4 Atmosphere

Convener: Geiger, A.
Tuesday, 21 April 1998
Lecture Room: R5
Chairperson: Geiger, A.

09:45 MADDEN, R.A.
Variations in the distribution of atmospheric mass (Solicited Paper)
10:15 **ROTHACHER, M.**; BEUTLER, G.
Information about the atmosphere derived from GPS observations (Solicited Paper)
10:45 BREAK

Chairperson: Geiger, A.

11:00 **ZHU, S.Y.**; REIGBER, CH.; KANG, Z.; YU, Y.Q.
Geophysical signals revealed from GPS position measurements
11:15 **DICKEY, J.O.**; DONG, D.; GROSS, R.S.
Temporal variations of the geopotential: atmospheric excitation
11:30 END OF SUB-SESSION

G7 Joint EGS/AGU symposium on geodetic observation and geophysical interpretation of mass movements in the Earth system (co-sponsored by SE) .5 Interactions between the components of the Earth system

Convener: Zerbini, S.
Tuesday, 21 April 1998
Lecture Room: R5
Chairperson: Zerbini, S.

11:30 LAMBECK, K.
Interactions between oceans, ice and solid Earth: glacial rebound in northwestern Europe and the evolution of the Baltic Sea (Solicited Paper)
12:00 **JAMES, T.S.**; IVINS, E.R.; RAYMOND, C.A.
Antarctic crustal response predictions from the CLIMAP reconstruction and its possible successors (Solicited Paper)
12:30 HARRISON, C.G.A.
Erosion, mountain building and ocean volume change. How do these interact? (Solicited Paper)
13:00 LUNCH

Chairperson: Zerbini, S.

14:00 **BOCK, Y.**; PRICE, E.; SANDWELL, D.; WATSON, K.; WILLIAMS, S.
Observing surface displacements through integrated space techniques (Solicited Paper)
14:30 **CAZENAVE, A.**; MERCIER, F.; GENNERO, M.C.; MINSTER, J.F.
Seasonal water mass redistribution between oceans, atmosphere and continents (Solicited Paper)
15:00 GEGOUT, P.
Mass movements inside the solid Earth induced by atmosphere, oceans and solid Earth interactions (Solicited Paper)
15:30 PLAG, H.-P.
Exogenic deformations of the Earth due to atmosphere and ocean loading (Solicited Paper)
16:00 **SCHERNECK, H.-G.**; HAAS, R.; WEBB, F.H.
Atmospheric and ocean loading in GPS and VLBI (Solicited Paper)
16:30 **BOUILLE, F.**; CAZENAVE, A.; SOUDARIN, L.; CRETAUX, J.F.
Geocenter variations derived from 4 years of data of the Doris space system. Comparison with surface loading data
16:45 PAVLIS, E.C.
Earthcenter motion from LAGEOS 1+2 laser ranging: comparisons with geophysical fluids series
17:00 **QIAN, B.**; PEN, G.; CORTE-REAL, J.; QI, L.
On the relationships between sea ice extent and atmospheric circulation in the northern hemisphere
17:15 BARKIN, YU.V.
Gravitational interaction between the Earth's envelopes, the Moon, the Sun and geodynamic consequences
17:30 END OF SESSION

G8 Integrated studies of sea-level fluctuations and crustal movements in the Mediterranean and adjacent regions

Convener: Cazenave, A.
Co-Convener(s): Plag, H.-P.
Wednesday, 22 April 1998
Lecture Room: R5
Chairperson: Cazenave, A.

09:00 PIRAZZOLI, P.A.
Late-quaternary and recent processes of relative sea-level change in Mediterranean costal areas (Solicited Paper)
09:30 REVA, YU.A.
A comparative analysis of the long-term sea level change of the Black and Caspian Sea
09:50 GROTEN, E.; FENOGLIO-MARC, L.; WANG, L.
Long term components of sea level fluctuations in European seas
10:10 **PINARDI, N.**; CASTELLARI, S.
The Mediterranean Sea general circulation and sea level variability from numerical simulations (Solicited Paper)
10:40 **WAKELIN, S.I.**; PROCTOR, R.
A tide and storm surge model for the Mediterranean Sea
11:00 LUNCH
12:00 Business Meetings

Chairperson: Plag, H.-P.

14:00 **LE TRAON, P.Y.**; DUCET, N.; GOUZELIN, P.
Response of the Mediterranean mean sea level to atmospheric pressure and comparison with the Black Sea (Solicited Paper)
14:30 PLAG, H.-P.
Interannual to decadal sea-level variations in the Mediterranean
14:50 **RUF, P.**; PLAG, H.-P.
Mediterranean sea-level variations forced by air pressure
15:10 **CAZENAVE, A.**; DOMINH, K.; GENNERO, M.C.; MERCIER, F.; BONNEFOND, P.
Present-day sea level changes in the Mediterranean and Black seas from satellite altimetry
15:30 ZERBINI, S.; NEGUSINI, M.; DI CORI, M.; TONTI, G.
High-precision determination of vertical crustal movements in the framework of the SELF II project (Solicited Paper)
16:00 **PAVLIS, E.C.**; MERTIKAS, S.; KOUROUMBALI, F.; DRAKOPOULOS, P.G.
Sea-level monitoring with CRETE: Crete REgional Tectonic Experiment
16:20 **TINTI, S.**; BORTOLUCCI, E.
Coastal hazard in the Mediterranean Sea due to storm surges and tsunamis
16:40 END OF SESSION

G9 Atmospheric sounding with GPS

Convener: Blewitt, G.
Co-Convener(s): Niell, A.E.
Wednesday, 22 April 1998
Lecture Room: R7
Chairperson: N.N.

08:30 **FANG, P.**; BOCK, Y.
A sliding-window precedure for super near real-time continous GPS water vapor estimation using predicted orbits
08:45 BAR-SEVER, Y.E.
GPS-based estimation of tropospheric moisture gradients
09:00 **NIELL, A.E.**; COSTER, A.J.; SOLHEIM, F.S.; MENDES, V.B.; TOOR, P.C.; LANGLEY, R.B.; UPHAM, C.A.
Measurements of water vapor in the atmosphere: comparison of radiosonde, water vapor radiometer, GPS, and VLBI
09:15 DODSON, A.H.; BAKER, H.C.; BUERKI, B.; ELGERED, G.; RIUS, A.; ROTHACHER, M.
The WAVEFRONT project on GPS water vapour estimation
09:30 BECKER, M.; FRANKE, P.; KOEPKEN, C.; WEBER, G.
Usage of GREF-permanent network results for geodesy and meteorology
09:45 **SYNDERGAARD, S.**; HOEG, P.
On the ionosphere calibration in atmospheric limb sounding
10:00 **JAKOWSKI, N.**; FICKERT, J.; WEHRENPFENNIG, A.; REIGBER, CH.; FÖRSTE, CH.; KÖNIG, R.
Atmosphere/ionosphere sounding using GPS radio occultation measurements onboard CHAMP
10:15 **KORNBLUEH, L.**; GORBUNOV, M.; BENGTSSON, L.
Simulation of full data assimilation cycle comparison
10:30 **FOELSCHE, U.**; KIRCHENGAST, G.
Atmospheric imaging involving GNSS occultation: a quantitative study
10:45 **KIRCHENGAST, G.**; RAMSAUER, J.; MÜHLMANN, W.; HOLLER, G.; HOLLER, K.; HOCKE, K.; STEINER, A.; FOELSCHE, U.; SYNDERGAARD, S.; MORTENSEN, M.; HOEG, P.; SCHULTZ, K.; HANSEN, D.; MARESI, L.; SILVESTRIN, P.; FUCHS, J.; TOBIAS, A.
An end-to-end occultation sounding simulator: overview and exemplary results
11:00 AL BAYARI, O.; CAPRA, A.; MANCINI, F.; VITTUARI, L.
The effect of TEC on Antarctica GPS measurements
11:15 END OF SESSION
12:00 Business Meetings

G9 Atmospheric sounding with GPS - Poster Session

Convener: Blewitt, G.
Co-Convener(s): Niell, A.E.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - G

G002 KUNITSYN, V.E.; ZAKHAROV, V.I.
Multipath influence on atmosphere - ionosphere profiling

G003 SHAGIMURATOV, I.I.; EPHISHOV, I.I.; **BARAN, L.W.**
Analysis of TEC variation from GPS measurements

G004 **CALAIS, E.**; MINSTER, J.B.; HOFTON, M.A.; HEDLIN, M.A.H.
Ionospheric signature of surface mine blasts from global positioning system measurements

G10 Satellite and airborne gravimetric and altimetric techniques - Poster Session

Convener: Forsberg, R.
Co-Convener(s): Haagmans, R.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - G

G005 KNUDSEN, P.; ANDERSEN, O.B.
Recovery of the global marine gravity field from multi mission satellite altimetry

G006 HERNANDEZ, F.; **SCHAEFFER, P.**; LE TRAON, P.-Y.; MERTZ, F.; BAHUREL, P.
A mean sea surface dedicated to ocean studies: global estimation

G007 OLESEN, A.; FORSBERG, R.; BASTOS, L.; GISKEHAUG, A.; HEHL, K.; MEYER, U.; TIMMEN, L.
High-resolution airborne gravity survey of Skagerrak

G10 Satellite and airborne gravimetric and altimetric techniques

Convener: Forsberg, R.
Co-Convener(s): Haagmans, R.
Friday, 24 April 1998
Lecture Room: R7
Chairperson: Forsberg, R.

11:00 **PAVLIS, N.K.**; WANG, Y.M.; CHINN, D.S.; COX, C.M.; LEMOINE, F.G.
Introduction of ocean circulation model information in global geopotential solutions: preliminary results

11:15 WANG, Y.M.
The computation of mean sea surface and marine gravity anomalies using satellite altimeter data from TOPEX/POSEIDON, ERS-1 and GEOSAT missions

11:30 **RENTSCH, M.**; ANZENHOFER, M.; GRUBER, TH.; NEUMAYER, K.H.
Altimetric gravity anomalies based on GEOSAT and ERS-1 geodetic mission data

11:45 VILLARES, P.; **CATALAN P.U., M.**; ROJAS, J.L.; CATALAN, M.; GOMEZ-ENRI, J.; CAMACHO, J.C.
Altimetric study of sea level variation on the Mediterranean along ERS and TOPEX campaigns

12:00 **MCADOO, D.C.**; LAXON, S.; CHILDERS, V.A.
Assessment of gravity from ERS altimetry and airborne gravimetry in polar seas

12:15 **DEGNAN, J.**; MCGARRY, J.
Feasibility studyof multikilohertz spaceborne microlaser altimeters

12:30 SELIG, A.; HOYNG, P.; KOOP, R.; VISSER, P.; SNEEUW, N.
Development of the end-to-end closed loop simulation facility for ESA's gravity explorer GOCE

12:45 **COLOMBO, O.L.**; HUSTI, G.J.; DAMHUIS, A.A.
The Europlatform experiment: testing precise, long-range kinematic GPS for remote-sensing

13:00 LUNCH

Chairperson: Colombo, O.

14:00 FORSBERG, R.; OLESEN, A.; BASTOS, L.; GISKEHAUS, A.; HEHL, K.; BOEBEL, T.; MEYER, U.; NESEMANN, M.; XU, G.; TIMMEN, L.
Geoid and sea-surface topography determination by airborne techniques

14:15 **BRUTON, A.M.**; GLENNIE, C.L.; SCHWARZ, K.P.
Aircraft acceleration from GPS for airborne gravimetry: a comparison of techniques

14:30 BASTOS, L.; CUNHA, S.; TIMMEN, L.; NESEMANN, M.; XU, G.; BOEBEL, T.; MEYER, U.; FORSBERG, R.; OLESEN, A.V.; GIDSKEHAUG, A.; HEHL, K.
Airborne gravimetry and altimetry campaign in the Azores region

14:45 BOEDECKER, G.
Comparison of various configurations of accelerometers for strapdown airborne gravimetry

15:00 BASTOS, L.; **BOEBEL, T.**; CUNHA, S.; FORSBERG, R.; GIDSKEHAUG, A.; HEHL, K.; MEYER, U.; MILLER, H.; NESEMANN, M.; OLESEN, A.V.; TIMMEN, L.; XU, G.
Airborne gravimetry and altimetry in north Greenland and Fram strait - NORDGRAV'97

15:15 GLENNIE, C.L.; **BRUTON, A.M.**; SCHWARZ, K.P.; WEI, M.; TENNANT, K.
Geoid referenced elevation models and ortho-rectified image maps from synthetic aperture radar

15:30 END OF SESSION

Journal of Geodynamics

The interdisciplinary journal for solid earth research in geodetic, geophysical, geological and geochemical geodynamics, in particular of large scale processes.

G11 Recent advances in precise geoid determination methodology

Convener: Tziavos, I.N.
Co-Convener(s): Vermeer, M.
Tuesday, 21 April 1998
Lecture Room: R8
Chairperson: Tziavos, I.N.
Editors: Tziavos, I.N.; Vermeer, M.

09:00 HOLOTA, P.
G11-001 Variational methods in geoid determination and function bases (Solicited Paper)
09:30 KELLER, W.
G11-002 Local geoid determination by wavelet-vaguelette decomposition (Solicited Paper)
10:00 **ARABELOS, D.**; TSCHERNING, C.C.
G11-003 Gravity field recovery from airborne gravity gradiometer data using collocation and taking into account systematic errors
10:20 **SUN, W.**; SJÖBERG, L.E.
G11-004 A new global topographic-isostatic model
10:40 BREAK

Chairperson: Arabelos, D.
Editors: Tziavos, I.N.; Vermeer, M.

11:10 BLITZKOW, D.
G11-005 Toward a 10' resolution geoid for South America: a comparison study (Solicited Paper)
11:40 PAVLIS, N.K.
G11-006 Modelling of long wavelength systematic errors in surface gravimetric data
12:00 DAHL, O.C.; FORSBERG, R.
G11-007 Different ways to handle topography in practical geoid determination
12:20 LEHMANN, R.
G11-008 Studies on the altimetry-gravimetry problems for geoid determination
12:40 ABD-ELMOTAAL, H.; **KÜHTREIBER, N.**
G11-009 Improving the geoid accuracy by adopting the reference field
13:00 LUNCH

Chairperson: Vermeer, M.
Editors: Tziavos, I.N.; Vermeer, M.

14:00 ZHANG, K.
G11-010 On the determination of a new Australian geoid
14:20 DUQUENNE, H.; HAMEL, M.
G11-011 Comparison and combination of a gravimetric geoid with a levlled GPS dataset by statistical analysis
14:40 **BASIC, T.**; BRKIC, M.
G11-012 A new, more accurate geoid for Croatia
15:00 **ZHANG, K.**; FEATHERSTONE, W.E.; DING, X.L.
G11-014 An accuracy estimation of gravimetric terrain corrections (Poster)
15:10 DUQUENNE, H.
G11-015 QGF98, a new solution for the gravimetric quais-geoid in France (Poster)
15:20 BARLIK, M.
G11-016 Investigations of the Earth figure by gradientometric determinations (Poster)
15:30 KENYERES, A.
G11-017 The completion of the nationwide GPS-gravimetric geoid solution for Hungary (Poster)
15:40 **TZIAVOS, I.N.**; ANDRITSANOS, V.D.
G11-018 Recent geoid computations for the Hellenic area (Poster)
15:50 **FIANI, M.**; SANNA, G.
G11-019 An estimation of Sardinia Island geoid by analysis of GPS/leveling data (Poster)
16:00 Concluding Remarks
16:30 END OF SESSION

G11 Recent advances in precise geoid determination methodology - Poster Session

Convener: Tziavos, I.N.
Co-Convener(s): Vermeer, M.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 2 - G
Chairperson: Vermeer, M.
Editors: Tziavos, I.N.; Vermeer, M.

G070 G11-014 **ZHANG, K.**; FEATHERSTONE, W.E.; DING, X.L.
An accuracy estimation of gravimetric terrain corrections
G071 G11-015 DUQUENNE, H.
QGF98, a new solution for the gravimetric quais-geoid in France
G072 G11-016 BARLIK, M.
Investigations of the Earth figure by gradientometric determinations
G073 G11-017 KENYERES, A.
The completion of the nationwide GPS-gravimetric geoid solution for Hungary
G074 G11-018 **TZIAVOS, I.N.**; ANDRITSANOS, V.D.
Recent geoid computations for the Hellenic area
G075 G11-019 **FIANI, M.**; SANNA, G.
An estimation of Sardinia Island geoid by analysis of GPS/leveling data

G12 Effects of the atmosphere, ocean and core on nutation, polar motion and length of day (co-sponsored by SE)
.1 Effects of the atmosphere - Poster Session

Convener: Gegout, P.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - G
Chairperson: Salstein, D.A.

G076 HÖPFNER, J.
Seasonal length-of-day changes and axial atmospheric-angular-momentum oscillations in their temporal variability
G077 **SCHMITZ-HÜBSCH, H.**; BOSCH, W.
Wavelet analysis of polar motion and angular momentum time series

G078 **ABARCA DEL RIO, R.**; GAMBIS, D.
Interannual and decadal time scales in the Earth rotation (LOD), atmospheric mountain stress torques (AMST) and the atmospheric angular momentum (AAM)

G078A **DE VIRON, O.**; DEHANT, V.
Comparison between torque and AAM approaches in order to compute the effect of a superficial fluid layer *

G12 Effects of the atmosphere, ocean and core on nutation, polar motion and length of day (co-sponsored by SE) .1 Effects of the atmosphere

Convener: Gegout, P.
Friday, 24 April 1998
Lecture Room: R5
Chairperson: Gegout, P.

14:00 **MARCUS, S.**; GHIL, M.
Tropical and extratropical excitation of subseasonal variations in the Earth's rotation rate (Solicited Paper)

14:30 **WEICKMANN, K.**; ROBINSON, W.; SARDESHMUKH, P.; HART, J.
Intraseasonal oscillations in global atmospheric angular momentum (Solicited Paper)

15:00 **ELBERSKIRCH, J.**; HENSE, A.
Atmospheric angular momentum variability and associated atmospheric patterns on different timescales simulated with the ECHAM3 T21 GCM

15:15 **SALSTEIN, D.A.**; ROSEN, R.D.
Interannual signals in atmospheric angular momentum from a 40-year reanalysis (Solicited Paper)

15:45 BREAK

Chairperson: Gegout, P.

16:00 **GEGOUT, P.**; MARCUS, S.; DICKEY, J.; CHAO, Y.
Angular momentum exchanges between the Earth and the hydrosphere and consequent length of day variations

16:15 **PETROV, S.**; BRZEZINSKI, A.; BIZOUARD, C.
Atmospheric excitation of prograde diurnal polar motion

16:30 **NASTULA, J.**; SALSTEIN, D.A.
Atmospheric regional signals in excitations of polar motion - analysis over a 40 year period

16:45 ABARCA DEL RIO, R.
Influence of the hydrological cycle on the seasonal cycle of Earth rotation and gravitational parameters

17:00 **BRZEZINSKI, A.**; BIZOUARD, C.; PETROV, S.
Atmospheric and oceanic effects on nutation of the Earth (Solicited Paper)

17:30 **BIZOUARD, C.**; PETROV, S.D.; BRZEZINSKI, A.
Atmospheric and oceanic contributions to the long periodic components of nutation

17:45 HÖPFNER, J.
Seasonal length-of-day changes and axial atmospheric-angular-momentum oscillations in their temporal variability

17:50 **SCHMITZ-HÜBSCH, H.**; BOSCH, W.
Wavelet analysis of polar motion and angular momentum time series

17:55 **ABARCA DEL RIO, R.**; GAMBIS, D.
Interannual and decadal time scales in the Earth rotation (LOD), atmospheric mountain stress torques (AMST) and the atmospheric angular momentum (AAM)

18:00 **DE VIRON, O.**; DEHANT, V.
Comparison between torque and AAM approaches in order to compute the effect of a superficial fluid layer *

18:05 END OF SESSION

G12 Effects of the atmosphere, ocean and core on nutation, polar motion and length of day (co-sponsored by SE) .2 Effects of the ocean - Poster Session

Convener: Sündermann, J.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - G

G080 **NASTULA, J.**; PONTE, R.; SALSTEIN, D.A.
Combined oceanic and atmospheric excitation of polar motion for the period 1993-1995

G12 Effects of the atmosphere, ocean and core on nutation, polar motion and length of day (co-sponsored by SE) .2 Effects of the ocean

Convener: Sündermann, J.
Friday, 24 April 1998
Lecture Room: R5
Chairperson: Sündermann, J.

11:00 MÖRNER, N.-A.
The hydrosphere's impact on Earth rotation (Solicited Paper)

11:30 **HAAS, R.**; SCHERNECK, H.-G.
Effect of ocean loading on the determination of Earth orientation parameters

11:45 PONTE, R.M.
Understanding the ocean's role on the variable Earth rotation (Solicited Paper)

12:15 THOMAS, M.
On the consideration of ocean tides in an AGCM and implications on Earth's rotation

12:30 JOHNSON, T.J.
The role of ocean variability in the Earth's rotation: a geodetic application for the Parallel Ocean Climate Model

12:45 **NASTULA, J.**; PONTE, R.; SALSTEIN, D.A.
Combined oceanic and atmospheric excitation of polar motion for the period 1993-1995

Stand-by paper:
SÜNDERMANN, J.
Ocean tides and history of the Earth-Moon system *

12:50 END OF SUB-SESSION

Attend the Poster Session

G12 Effects of the atmosphere, ocean and core on nutation, polar motion and length of day (co-sponsored by SE) .3 Effects of the core - Poster Session

Convener: Dehant, V.M.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - G
Chairperson: Salstein, D.A.

G079 GREINER-MAI, H.; JOCHMANN, H.; BARTHELMES, F.
About the influence of a possible relative rotation of the Earth's inner core on the polar motion, the geomagnetic field and the gravity field

G12 Effects of the atmosphere, ocean and core on nutation, polar motion and length of day (co-sponsored by SE) .3 Effects of the core

Convener: Dehant, V.M.
Friday, 24 April 1998
Lecture Room: R5
Chairperson: Dehant, V.M.

08:30 **MATHEWS, P.M.**; BUFFETT, B.A.; HERRING, T.A.
Earth rotation and core modelling: couplings of the mantle, outer core, and inner core (Solicited Paper)
09:00 **JAULT, D.**; WICHT, J.
Axial torques acting between core and mantle (Solicited Paper)
09:30 ZATMAN, S.A.
When are the core and mantle coupled?
09:45 **GETINO, J.**; FERRANDIZ, J.M.
Geophysical parameters derived from the Hamiltonian non-rigid Earth theory
10:00 DEHANT, V.; DEFRAIGNE, P.; VAN HOOLST, T.
About the influence of the core on nutations: a beginning
10:15 GREINER-MAI, H.; JOCHMANN, H.; BARTHELMES, F.
About the influence of a possible relative rotation of the Earth's inner core on the polar motion, the geomagnetic field and the gravity field
10:20 END OF SUB-SESSION

G12 Effects of the atmosphere, ocean and core on nutation, polar motion and length of day (co-sponsored by SE) .4 Models, measurements and analysis of Earth rotation

Convener: Schuh, H.
Thursday, 23 April 1998
Lecture Room: R5
Chairperson: Schuh, H.

14:00 GREFF-LEFFTZ, M.
Theory of the Earth's rotation at different time-scales (Solicited Paper)
14:30 CHAO, B.F.
Angular momentum variations in the geophysical fluids (Solicited Paper)
15:00 VONDRAK, J.
Long series of Earth rotation parameters after reanalysis within the Hipparcos frame (Solicited Paper)
15:30 **WEBER, R.**; ROTHACHER, M.; SPRINGER, T.
Monitoring Earth rotation variations by GPS (Solicited Paper)
16:00 GIBERT, D.; **HOLSCHNEIDER, M.**; LEMOUEL, J.L.
Wavelet analysis of the polar motion
16:15 **DILL, R.**; DREWES, H.; RICHTER, B.; SCHUH, H.
Influence of global mass displacements on Earth rotation
16:30 **GIPSON, J.**; MA, C.
Signatures of ENSO in LOD
16:45 KOTRELEVA, O.V.; KOSEK, W.; **KOLACZEK, B.**
Time variable spectrum of the free-core nutation
16:50 END OF SUB-SESSION

G12 Effects of the atmosphere, ocean and core on nutation, polar motion and length of day (co-sponsored by SE) .4 Models, measurements and analysis of Earth rotation - Poster Session

Convener: Schuh, H.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - G

G080A **KOTRELEVA, O.V.**; KOSEK, W.; KOLACZEK, B.
Time variable spectrum of the free-core nutation
G080B TITOV, O.
Subdiurnal variations of EOP from VLBI data

G14 Contribution of permanent geodetic network to Earth Science in Europe

Convener: Calais, E.
Co-Convener(s): Ambrosius, B.A.C.
Tuesday, 21 April 1998
Lecture Room: R7
Chairperson: Noomen, R.

09:00 KAUFMAN, M.; **OXENTIOUK, A.**; SINENKO, L.; YUNOSHEV, L.; ZALYTSKY, V.
Investigation of specific periods for crustal loading effects on GPS base "Mendeleevo-Irkutsk"
09:20 POUTANEN, M.
The seven-year history of the Baltic Sea level GPS campaigns
09:40 **JOHANSSON, J.M.**; SCHERNECK, H.-G.; ELGERED, G.; EMARDSON, T.R.; DARIN, C.-F.; DAVIS, J.L.
Continuous monitoring of Earth atmosphere and crustal deformation using GPS

10:00 **SCHERNECK, H.-G.**; JOHANSSON, J.M.; DAVIS, J.L.; MITROVICA, J.X.
BIFROST project: horizontal and vertical crustal motion in Fennoscandia from 1500 days of continuous GPS observations
10:20 BREAK

Chairperson: Ambrosius, B.A.C.

11:00 BRUYNINX, C.
Using the EUREF permanent GPS network to detect deformations within the Eurasian plate
11:20 NOOMEN, R.; LOOHUIS, J.
Three-dimensional crustal deformations in Europe observed with space geodesy
11:40 **CALAIS, E.**; BARLIER, F.; BAYER, R.; CHERY, J.; BOUCHER, C.; COTON, F.; DERVIN, P.; JOUANNE, F.; MANZINO, A.; MARTINOD, J.; RAMEL, C.; VIGNY, C.
A permanent GPS network for monitoring crustal deformation in the western Alps
12:00 **MERTIKAS, S.**; PAVLIS, E.C.; KARALIOTIS, A.; FRANTZIS, X.; MBARTZOS, E.
First observations from Crete Regional Tectonic Experiment (CRETE)
12:20 ANDERSEN, P.H.
Combination of VLBI, GPS and SLR observations at the observation level - first results
12:40 SLEEWAEGEN, J.-M.
Phase surge anomalies: description, origin and solution
13:00 LUNCH

Chairperson: Bruyninx, C.

14:00 **WEBB, F.H.**; HEFLIN, M.B.; HURST, K.; WATKINS, M.M.; ZUMBERGE, J.F.
Implementation of GIPSY for the analysis of large continuous GPS networks
14:20 **MULS, A.**; SLEEWAEGEN, J.-M.; BRUYNINX, C.; WARNANT, R.
The redesign of the Belgiuan permanent GPS network for future (near) real-time applications
14:40 **KOIVULA, H.**; OLLIKAINEN, M.; POUTANEN, M.
Use of the Finnish permanent GPS network in postglacial rebound studies
15:00 ASHKENAZI, V.; BAKER, H.C.; **BINGLEY, R.M.**; DODSON, A.H.; PENNA, N.T.; BAKER, T.F.; GREENAWAY, R.G.; NURSEY, K.; BEDLINGTON, D.; OFFILER, D.; JERRETT, D.
The establishment of a permanent geodetic network in the UK
15:20 FERMI, M.; FERRARO, C.; NARDI, A.; PACIONE, R.; VESPE, F.
The Italian GPS Fiducial Network in Italy, present status and future development (Solicited Paper)
16:00 **DAVILA, J.M.**; GARATE, J.; BERROCOSO, M.
South Spain-north Africa geodynamic GPS network
16:20 BOCK, Y.; HUDNUT, K.; PRESCOTT, W.; WATKINS, M.; AGNEW, D.; GALTEZKA, J.; KING, N.; MCRANEY, J.; SCHEID, J.; WEBB, F.; WYATT, F.; YOUNG, W.
The southern California integrated GPS network (Solicited Paper)
17:00 END OF SESSION

G14 Contribution of permanent geodetic network to Earth Science in Europe - Poster Session

Convener: Calais, E.
Co-Convener(s): Ambrosius, B.A.C.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:30 - 19:00
Poster Area: AGORA 2 - G
Chairperson: Calais, E.

G017 REIGBER, CH.; GENDT, G.; LECHNER, W.
OWAG-B: a pilot project for operational water vapour estimation in a dense German ground-based GPS network
G018 **PERIN, B.**; SHIVER, W.
University NAVSTAR consortium (UNAVCO) facility support to permanent Global Positioning System (GPS) network installation and operation
G019 **MALKIN, Z.**; SPRINGER, T.; POUTANEN, M.
On BSL'93 combined GPS solution
G020 **BARAN, L.W.**; KAPCIA, J.; KRANKOWSKI, A.; WIELGOSZ, P.; SHAGIMURATOV, I.I.
Activity of the Lamkowko IGS permanent station
G021 **WEBER, R.**; TITZ, H.
SATVB - a multipurpose GPS-reference station network in Austria
G022 PEERI, S.; WDOWINSKI, S.
Continuous monitoring of crustal deformation along the Dead Sea Fault utilizing a permanent GPS network
G023 **ZHAGARS, Y.**; KAMINSKIS, J.
The new geodynamic site in Latvia LV-04 (Irbene) converted Russian ex-military object
G024 **CAMPBELL, J.**; NOTHNAGEL, A.; SORGENTE, M.
The regional VLBI-network for measurement of crustal motion in Europe - status and results
G025 BECKER, M.; FRANKE, P.; SCHLÜTER, W.; SEEGER, H.; WEBER, G.
Status and performance of the German permanent GPS network GREF-permanent
G026 SMITH, D.E.; KOLENKIEWICZ, R.; DUNN, P.J.; TORRENCE, M.H.
Mixed geodetic networks for Earth sciences
G027 **VAN DER MAREL, H.**; DE JONG, C.D.
Active GPS reference system for the Netherlands

G15 Instrumental challenges in geodesy

Convener: Tomasi, P.
Co-Convener(s): Bianco, G.; Degnan, J.J.; Wilson, C.R.
Monday, 20 April 1998
Lecture Room: R7
Chairperson: Tomasi, P.
Editors: Degnan, J.J.; Tomasi, P.

09:00 **BONNEFOND, P.**; EXETIER, P.; BOUDON, Y.;
G15-001 LAURAIN, O.; BARLIER, F.
Monitoring SLR range biaises from multi-satellite long time series of laser residuals
09:15 VASSILIEV, V.P.; BURMISTROV, V.B.;
G15-002 SHARGORODSKY, V.D.
A satellite for submillimeter-accuracy SLR
09:30 RIEPL, ST.; **SCHREIBER, U.**; SCHLÜTER, W.
G15-003 Atmospheric correction from dual color SLR

09:45 DEGNAN, J.; MCGARRY, J.; ZAGWODZKI, T.
G15-004 Advanced NASA research and development in satellite laser ranging
10:00 **SCHREIBER, U.**; SCHNEIDER, M.; STEDMAN,
G15-005 G.; ROWE, C.; COOPER, S.; SCHLÜTER, W.; SEEGER, H.
The CII Ring Laser project
10:15 MENDES, V.B.; **LANGLEY, R.B.**
G15-006 An analysis of high-accuracy tropospheric delay mapping functions
10:30 BREAK

Chairperson: Degnan, J.J.
Editors: Degnan, J.J.; Tomasi, P.

11:00 **MERTIKAS, S.**; TSAKIRI, M.; PAVLIS, E.C.
G15-007 Quality control challenges in GPS positioning arrays
11:15 TIBERIUS, C.; KENSELAAR, F.
G15-008 An analysis of the stochastic model of GPS observables
11:30 **SCHUH, H.**; SCHWEGMANN, W.
G15-009 First steps towards real-time VLBI
11:45 PETROV, L.
G15-010 Usage of phase delay measurements produced by VLBI for geodetic applications
12:00 GRATCHEV, V.G.; IPATOV, A.V.; **KOLTSOV,**
G15-011 **N.E.**
Testing of VLBI site data acquisition and registration equipment with a correlator use
12:15 CANNON, W.H.; FEIL, G.; FEIR, B.; NEWBY, P.;
G15-012 NOVIKOV, A.; DEWDNEY, P.; CARLSON, B.; POPELAR, J.; PETRACHENKO, W.T.; KLATT, C.; BERUBE, M.
The S2 VLBI system
12:30 LUNCH

Chairperson: Tomasi, P.
Editors: Degnan, J.J.; Tomasi, P.

14:00 **SCHLÜTER, W.**; BÖER, A.; DASSING, R.;
G15-013 HASE, H.; SEEGER, H.; SPERBER, P.; KILGER, R.
Transportable integrated geodetic observatory TIGO as a realisation of a new fundamental station
14:15 **BEDRICH, S.**; FLECHTNER, F.; TEUBEL, A.
G15-014 Accuracy verification of PRARE measurement data and calibration techniques
14:30 **SNOW, R.W.**; RUTLEDGE, D.R.
G15-015 Increasing automation of GPS/GLONASS reference stations with Ashtech's geodetic base station software (Poster)
14:35 **KUNIMORI, H.**; YOU, Z.; PROCHAZKA, I.;
G15-016 HAMAL, K.
The on-site diagnostics and accuracy improvement of satellite laser ranging stations using portable calibration standard (Poster)
14:40 VASSILIEV, V.P.; SHARGORODSKY, V.D.
G15-017 A new approach to the problem of a transportable eye-safe SLR station for high-accuracy measurements (Poster)
14:45 KIRCHNER, G.; KOIDL, F.
G15-018 Time walk compensation and satellite signature reduction with SPADs (Poster)
14:50 HAUSLEITNER, W.; APPLEBY, G.; SINCLAIR,
G15-019 A.
The EUROLAS stations as an effective satellite tracking cluster (Poster)
14:55 IPATOV, A.V.; **KOLTSOV, N.E.**; TSAREV, V.I.
G15-020 Multichannel software controlled radiometer for radiotelescope in S. Svetloye (Poster)
15:00 KIUCHI, H.; KONDO, T.; SEKIDO, M.;
G15-021 KOYAMA, Y.; IMAE, M.
Real-time VLBI system for the Key Stone Project (Poster)

Techniques for Earth observation

15:05 MA, C.; RYAN, J.W.
G15-022 Inherent accuracy of 24-hr VLBI EOP measurements derived from two simultaneously observing networks
15:20 SMITH, G.R.; HEYWOOD, D.I.
G15-023 Using ephemeris information from GPS signatures to improve thematic mapping in mountain environments: a conceptual proposal
15:35 **WEWEL, F.**; JAUMANN, R.; BRAND, M.;
G15-024 NEUKUM, G.; SCHOLTEN, F.
High resolution acquisition of topographic surfaces with the High Resolution Stereo Camera (HRSC) (Poster)
15:40 **BERRY, P.A.M.**; BRON, E.
G15-025 Idenpendent validation of the globe global digital elevation model using satellite altimetry
15:55 TOMASI, P.
Concluding Remarks
16:10 END OF SESSION
17:00 Opening
19:30 Reception

G15 Instrumental challenges in geodesy - Poster Session

Convener: Tomasi, P.
Co-Convener(s): Bianco, G.; Degnan, J.J.; Wilson, C.R.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 2 - G
Chairperson: Tomasi, P.
Editors: Degnan, J.J.; Tomasi, P.

G008 **SNOW, R.W.**; RUTLEDGE, D.R.
G15-015 Increasing automation of GPS/GLONASS reference stations with Ashtech's geodetic base station software
G009 **KUNIMORI, H.**; YOU, Z.; PROCHAZKA, I.;
G15-016 HAMAL, K.
The on-site diagnostics and accuracy improvement of satellite laser ranging stations using portable calibration standard
G010 VASSILIEV, V.P.; SHARGORODSKY, V.D.
G15-017 A new approach to the problem of a transportable eye-safe SLR station for high-accuracy measurements
G011 KIRCHNER, G.; KOIDL, F.
G15-018 Time walk compensation and satellite signature reduction with SPADs
G012 HAUSLEITNER, W.; APPLEBY, G.;
G15-019 SINCLAIR, A.
The EUROLAS stations as an effective satellite tracking cluster
G013 IPATOV, A.V.; **KOLTSOV, N.E.**; TSAREV,
G15-020 V.I.
Multichannel software controlled radiometer for radiotelescope in S. Svetloye

G014 KIUCHI, H.; KONDO, T.; SEKIDO, M.;
G15-021 KOYAMA, Y.; IMAE, M.
Real-time VLBI system for the Key Stone Project

G015 **WEWEL, F.**; JAUMANN, R.; BRAND, M.;
G15-024 NEUKUM, G.; SCHOLTEN, F.
High resolution acquisition of topographic surfaces with the High Resolution Stereo Camera (HRSC)

G16 Geodetic and geodynamic achievements of the CEI (Central European Initiative)

Convener: Sledzinski, J.
Co-Convener(s): Kostelecky, J.
Monday, 20 April 1998
Lecture Room: R10
Chairperson: Czarnecki, K.

08:30 SLEDZINSKI, J.
Current status of realisation of scientific programmes in geodesy and geodynamics of the CEI sixteen countries

08:45 FRANKE, P.; IHDE, J.; SCHLÜTER, W.; **SEEGER, H.**; WEBER, G.
The contribution of the EUREF- and EUVN-GPS-campaigns to the maintenance of the geodetic reference system in central Europe (Solicited Paper)

09:15 **FEJES, I.**; GHITAU, D.; MARCHESINI, C.; MOJZES, M.; PESEC, P.; REINHART, E.; SIMEK, J.; SLEDZINSKI, J.; SOLARIC, M.; VODOPIVEC, F.; ZABLOTSKIJ, F.
The Central Europe Geodynamics Oroject (CERGOP): main achievements 1995-1998

09:30 STANGL, G.
The GPS campaigns of CERGOP - combined products of 1994-1997

09:45 FERMI, M.; **FERRARO, C.**; NARDI, A.; PACIONE, R.; VESPE, F.
Analysis of a sub-network of stations from 4 years of CERGOP GPS campaigns

10:00 HEFTY, J.
Estimate of site velocities from CEGRN GPS campaigns referred to CERGOP reference frame

10:15 **ROGOWSKI, J.B.**; FIGURSKI, M.
CERGOP as a regional network for the maintenance of the EUREF reference frame

10:30 BREAK

Chairperson: Fejes, I.

11:00 BECKER, M.; GHITAU, D.; MARCU, C.; NEUMAIER, P.; RADULESCU, F.; **REINHART, E.**; ROSCA, V.; RUS, T.; SEEGER, H.
Plate kinematic studies in Romania using GPS

11:15 **BOSY, J.**; KONTNY, B.
Strategy of GPS data processing in local geodynamical networks

11:30 CACON, S.; **KONTNY, B.**; BOSY, J.
Recent geodynamics of eastern Sudety mountains and Sudety foreland

11:45 PESEC, P.
Permanent GPS stations in central Europe for precise (real-time) positioning

12:00 CZARNECKI, L.; JANAK, J.; **MOJZES, M.**
Tatra mountains without borders

12:15 BOGUSZ, J.; KRUCZYK, M.; KUJAWA, L.; KURKA, W.; PIRASZEWSKI, M.; **ROGOWSKI, J.B.**; SLEDZINSKI, J.; FIGURSKI, M.
Contribution of astro-geodetical observatory in Jozefoslaw to EUREF and geodynamical studies in central Europe

12:30 **REINHART, E.**; RICHTER, B.; WILMES, H.; SLEDZINSKI, J.; MARSON, I.; ERKER, E.; RUESS, D.; KAKKURI, J.; MAKINEN, J.
Unification of gravity systems of central and eastern European countries - unigrace

12:45 **KOSTELECKY, J.**; ZEMAN, A.
Geometrical interpretation of the quasigeoid on the territory of the Czech Republic

13:00 LUNCH

Chairperson: Hefty, J.

14:00 SIMEK, J.
Some characteristics of detailed gravity field for the territory of the Czech Republic and their geophysical implications

14:15 BORZA, T.; **KENYERES, A.**
Realization of the Hungarian national GPS network

14:30 BARAN, P.; CHERNOCON, V.; **CHEREMSHYNSKY, M.**
Some experience of GPS applications for constructions monitoring *

14:45 OSZCZAK, S.
Present status of establishment of navigation DGPS systems in European countries

15:00 **VODOPIVEC, F.**; CZARNECKI, K.
Attempts at upgrading university education standards in the CEI countries

15:15 DOLGOPOLOW, A.; **WOLSKI, A.**
Application DGPS system for surveys of hydrotechnical objects (Poster)

15:19 **FELSKI, A.**; SPECHT, C.
DGPS on the Baltic Sea - the hydrographic experience (Poster)

15:23 SZYMONSKI, M.
Some notes on the future navigation satellite system architecture for marine purposes (Poster)

15:27 CZARNECKI, K.; **FELLNER, A.**; JAFERNIK, H.; OLSZEWSKI, R.; ROGOWSKI, J.; SLEDZINSKI, J.
RTK-DGPS for military and civil aviation in Poland (Poster)

15:31 BOGUSZ, J.; KUJAWA, L.; KURKA, W.; PIRASZEWSKI, M.; **ROGOWSKI, J.B.**; DOBROWOLSKI, A.; LESZCZYNSKI, W.; SZOLUCHA, M.
Application of GPS technology to the environmental studies (Poster)

15:35 KUJAWA, L.
Comparison of different types of GPS receivers and antennas (Poster)

15:39 SLEDZINSKI, J.
Six GPS campaigns of the project EXTENDED SAGET (Poster)

15:43 **SLEDZINSKI, J.**; VYSKOCIL, P.
Monographs on geodynamics of a part of CEI territory (Poster)

* not included in the Book of Abstracts

15:47 **KALINOWSKA-SLEDZINSKA, B.**; BARLIK, M.; CZARNECKI, K.; MARGANSKI, S.; PACHUTA, A.; WALO, J.
Use of GPS measurements for determination of gravimetric topographic correction (Poster)

15:51 BOGUSZ, J.
Instrumental phase lag determination in Polish tidal stations (Poster)

15:55 BARLIK, M.
Incorporation of the vertical gravity gradient observations to the determination of separation between geoid and quasigeoid on Poland territory (Poster)

15:59 FERRARO, L.; MARJANOVIC, M.; MERVART, L.; BECKER, M.; RUS, T.; PANY, T.; STANGL, G.; KENYERES, A.; HEFTY, J.; **ROGOWSKI, J.B.**; FIGURSKI, M.
Final results of CEGRN observations campaigns (Postter)

16:03 CAPORALI, A.; DE PERINI, V.; DELLA CORTE, V.
Tracking and data processing at the GPS station UPAD (Poster)

16:07 FIGURSKI, M.
The effect of ionosphere modelling on the accuracy of GPS single-frequency observations (Poster)

16:11 BOGUSZ, J.; **FIGURSKI, M.**
Influence of the geophysical effects on the results of GPS data processing (Poster)

16:15 KRUCZYK, M.
Irregular changes in Earth rotation parameters (Poster)

16:19 **CZARNECKA, K.**; CZARNECKI, K.
Are terrestrial levelling and satellite GPS networks well-matched witht the recent dynamics of the Polish territory (Poster)

16:23 DOUSA, J.
Long-period solutions of results of the GOP EUREF local analysis center (Poster)

16:27 PACHUTA, A.; **BARLIK, M.**; KALINOWSKA-SLEDZINSKA, B.; MARGANSKI, S.; WALO, J.
Including of the vertical gravity gradient influence to gravimetric determinations in the Polish fundamental gravity network * (Poster)

16:31 GRENERCZY, GY.
Crustal deformations in the Pannonian basin inferred from GPS measurements (Poster)

16:35 DEMEDYUK, M.; **DUBIS, L.**; TRETYAK, K.
Geodynamic investigations in the area of Riksk fault (the Ukrainian Carpathians) (Poster)

16:39 **BONDARENKO, V.**; SIDORENKO, G.; SHURUBKIN, V.; SVITLOV, S.; LOKSHYN, YU.
Status of absolute gravity measurements in Ukraine (Poster)

16:43 GRENERCZY, GY.; KENYERES, A.
An attempt for geokinematic interpretation of GPS measurements in the CEGRN network (Poster)

16:47 KUZNETSOVA, V.; MAKSYMCHUK, V.; OSTROVSKYJ, A.; **TRETYAK, K.**; VERTYTSKYJ, O.; ZABLOTSKYJ, F.; CHERNYAGA, P.
Achievements and prospects of geodynamic studies on the Carpathan test field (Poster)

16:51 BENDYNA, M.; SLEDZINSKI, J.; TRETYAK, K.; **ZABLOTSKYJ, F.**
Progress in establishment of the Ukrainian-Polish observatory PIP-IVAN in Charnohora (Poster)

16:55 ZABEK, Z.
Long-period absolute changes of gravity at the astrogeodetic observatory at Jozefoslaw * (Poster)

16:59 END OF SESSION

17:00 Opening

19:30 Reception

G16 Geodetic and geodynamic achievements of the CEI (Central European Initiative) - Poster Session

Convener: Sledzinski, J.
Co-Convener(s): Kostelecky, J.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 2 - G
Chairperson: Simek, J.

G028 DOLGOPOLOW, A.; **WOLSKI, A.**
Application DGPS system for surveys of hydrotechnical objects

G029 **FELSKI, A.**; SPECHT, C.
DGPS on the Baltic Sea - the hydrographic experience

G030 SZYMONSKI, M.
Some notes on the future navigation satellite system architecture for marine purposes

G031 CZARNECKI, K.; **FELLNER, A.**; JAFERNIK, H.; OLSZEWSKI, R.; ROGOWSKI, J.; SLEDZINSKI, J.
RTK-DGPS for military and civil aviation in Poland

G032 BOGUSZ, J.; KUJAWA, L.; KURKA, W.; PIRASZEWSKI, M.; **ROGOWSKI, J.B.**; DOBROWOLSKI, A.; LESZCZYNSKI, W.; SZOLUCHA, M.
Application of GPS technology to the environmental studies

G033 KUJAWA, L.
Comparison of different types of GPS receivers and antennas

G034 SLEDZINSKI, J.
Six GPS campaigns of the project EXTENDED SAGET

G035 **SLEDZINSKI, J.**; VYSKOCIL, P.
Monographs on geodynamics of a part of CEI territory

G036 **KALINOWSKA-SLEDZINSKA, B.**; BARLIK, M.; CZARNECKI, K.; MARGANSKI, S.; PACHUTA, A.; WALO, J.
Use of GPS measurements for determination of gravimetric topographic correction

G037 BOGUSZ, J.
Instrumental phase lag determination in Polish tidal stations

G038 BARLIK, M.
Incorporation of the vertical gravity gradient observations to the determination of separation between geoid and quasigeoid on Poland territory

G039 FERRARO, L.; MARJANOVIC, M.; MERVART, L.; BECKER, M.; RUS, T.; PANY, T.; STANGL, G.; KENYERES, A.; HEFTY, J.; **ROGOWSKI, J.B.**; FIGURSKI, M.
Final results of CEGRN observations campaigns

G040 CAPORALI, A.; DE PERINI, V.; DELLA CORTE, V.
Tracking and data processing at the GPS station UPAD

G041 FIGURSKI, M.
The effect of ionosphere modelling on the accuracy of GPS single-frequency observations

G042 BOGUSZ, J.; **FIGURSKI, M.**
Influence of the geophysical effects on the results of GPS data processing

G043 KRUCZYK, M.
Irregular changes in Earth rotation parameters

G044 **CZARNECKA, K.**; CZARNECKI, K.
Are terrestrial levelling and satellite GPS networks well-matched witht the recent dynamics of the Polish territory

G045 DOUSA, J.
Long-period solutions of results of the GOP EUREF local analysis center

G046 PACHUTA, A.; **BARLIK, M.**; KALINOWSKA-SLEDZINSKA, B.; MARGANSKI, S.; WALO, J.
Including of the vertical gravity gradient influence to gravimetric determinations in the Polish fundamental gravity network *

G046A GRENERCZY, GY.
Crustal deformations in the Pannonian basin inferred from GPS measurements

G046B DEMEDYUK, M.; **DUBIS, L.**; TRETYAK, K.
Geodynamic investigations in the area of Riksk fault (the Ukrainian Carpathians)

G046C **BONDARENKO, V.**; SIDORENKO, G.; SHURUBKIN, V.; SVITLOV, S.; LOKSHYN, YU.
Status of absolute gravity measurements in Ukraine

G046D GRENERCZY, GY.; KENYERES, A.
An attempt for geokinematic interpretation of GPS measurements in the CEGRN network

G046E KUZNETSOVA, V.; MAKSYMCHUK, V.; OSTROVSKYJ, A.; **TRETYAK, K.**; VERTYTSKYJ, O.; ZABLOTSKYJ, F.; CHERNYAGA, P.
Achievements and prospects of geodynamic studies on the Carpathan test field

G046F BENDYNA, M.; SLEDZINSKI, J.; TRETYAK, K.; **ZABLOTSKYJ, F.**
Progress in establishment of the Ukrainian-Polish observatory PIP-IVAN in Charnohora

G046G ZABEK, Z.
Long-period absolute changes of gravity at the astrogeodetic observatory at Jozefoslaw *

European Geophysical Society

Inviting the scientists of the world to participate in the

Millennium Conference on Earth, Planetary & Solar Systems Sciences

- 25th General Assembly -

Fortezza da Basso, Florence, Italy
3-7 April 2000

Join this unique celebration of the past and the new millennium in the capital of Renaissance and in the beauty of Tuscany.

Suggestions regarding the scientific programme and any inquiries should be addressed to:

EGS Office
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

Tel: +49-5556-1440
Fax: +49-5556-4709
EGS@COPERNICUS.ORG
http://www.copernicus.org/EGS/EGS.html

Hydrological Sciences

HSA1 Hydrology and the Earth's crust .1 Characterization and modelling of the 2-D and 3-D structure of porous and fractured formations

Convener: Huggenberger, P.
Co-Convener(s): Mackay, R.
Wednesday, 22 April 1998
Lecture Room: GALLIENI 3
Chairperson: Jackson, P.C.

Fractured rock

08:40 **DE DREUZY, J.R.**; DAVY, P.; BOUR, O.
Transport properties of fault networks. Insight from a power law length distribution model
09:00 KAUFMANN, G.
Numerical modles of karst drainage systems
09:20 GUDMUNDSSON, A.
Development of permeability in fault zones
09:40 KENNEDY, K.; **MÜLLER, I.**; OYONO, E.
Surface geophysics applied to permeability discurmination, characterization and site model development
10:00 **MCDERMOTT, C.**; SAUTER, M.; LEIDL, R.; TEUTSCH, G.
Using the aquifer analogue principle for the investigation of the fractured porous system: new techniques and modelling considerations
10:20 GUMIEL, P.; CAMPOS, R.; DURAN, J.J.
Geometric modelling of fracture systems: application to different geological targets
10:40 GONZALEZ-GARCIA, R.; CUVIER, S.; HARLAUT, D.; LEDESERT, B.; **THOVERT, J.-F.**; ADLER, P.M.
Three-dimensional characterization of a real fracture network: reconstructio, geometry, transports
11:00 **KLINGBEIL, R.**; TEUTSCH, G.; KLEINEIDAM, S.; WHITTAKER, J.; AIGNER, T.
Characterisation and modelling of quaternary outcrop analogues
11:20 LUNCH
12:00 Business Meetings

Chairperson: N.N.

Porous Media

14:00 **TIMMERMAN, A.**; VANDERSTEEN, K.; MARCHAL, G.; FUCHS, T.; FEYEN, J.
Using precorrected raw data in computer tomography to quantify structures in dense porous media
14:20 **HASSANI, R.**; BERNARD, D.; GOUZE, P.
A simplified numerical model coupling fluid flow, heat and mass transfers and geochemical reactions in sedimentary basins
14:40 **LUNN, R.J.**; MACKAY, R.
Characterising zones of locally enhanced conductivity from pump test data
15:00 **MORAKINYOL, D.**; MACKAY, R.
Characterizing the geological patterns in an alluvial formation beneath an industrial redevelopment site
15:20 **TELES, V.**; PERRIER, E.; DE MARSILY, G.
A new approach to sediment erosion and deposition in an alluvial system
15:40 **BRUDERER, C.**; BERNABE, Y.
Effect of the variance of the pore size distribution on hydrodynamic dispersion in heterogeneous networks
16:00 MONTEMAGNO, C.D.
Experimental measurement of the functional relationship between capillary pressure, saturation and interfacial area
16:20 **WHITTAKER, J.**; TEUTSCH, G.; GRATHWOHL, P.; SUDICKY, E.
Numerical simulation of the flow and transport of NAPLs in heterogeneous porous media
16:40 **BETHERS, U.**; JEKABSONS, N.; SENNIKOVS, J.
An approach for representation of 3D geological structures and modelling groundwater flows
17:00 END OF SUB-SESSION

HSA1 Hydrology and the Earth's crust .1 Characterization and modelling of the 2-D and 3-D structure of porous and fractured formations - Poster Session

Convener: Huggenberger, P.
Co-Convener(s): Mackay, R.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Wednesday, 17:30 - 19:00
Poster Area: AGORA 2 - HS

HS001 **YANG, J.**; EDWARDS, J.N.
A finite element algorithm for simulating groundwater flow, heat and contaminant transport in discretely fractured rocks
HS002 OFTERDINGER, U.; RENARD, P.
Determining a suitable fracture network model as a basis for groundwater-modelling in a fractured crystalline aquifer
HS003 **BLOOMFIELD, J.P.**; BARKER, J.A.
Modelling fracture aperture growth using simple growth laws
HS004 **DEGNAN, P.J.**; MILODOWSKI, A.E.; TODMAN, S.
The identification of potential flowing features for a conceptual model of fracture flow at Sellafield
HS005 MENDIONDO, E.M.; **GOLDENFUM, J.A.**
Unsaturated media study in soils with macropores through pseudo-saturation approach: an application in basaltic Terra Roxa Estruturada soil, southern Brazil
HS006 **JACKSON, C.P.**; WATSON, S.P.
Upscaling and calibration in the NIREX 97 assessment of the performance of a repository at Sellafield
HS007 **TIMMERMAN, A.**; MALLANTS, D.; FEYEN, J.
Describing and characterizing macroporosity in a loam soil using dyes to predict saturated hydraulic conductivity

HS008 WIPFLER, E.L.; SANCHEZ-VILA, X.; CARRERA-RAMIREZ, J.
MC simulation of transport in 2-D heterogenous anisotropic media with the flow orientated in an angle

HS009 **REGLI, CH.**; HUGGENBERGER, P.; ROHRMEIER, M.; EINSTEIN, H.; RAUBER, M.
Integration of field-data of different quality into flow and transport models: case studies from river Wiese and river Toess, Switzerland

HS011 **COUSIN, I.**; BRUAND, A.; RENAULT, P.; LEVITZ, P.
Gas diffusion in an undisturbed soil core and in its 3D reconstruction

HS013 MORAKINYO, J.A.; **MACKAY, R.**
Alternative geostatistical models of contaminated soil stratigraphy

HSA1 Hydrology and the Earth's crust .2 Identification of model parameters in groundwater hydrology

Convener: Giudici, M.
Co-Convener(s): de Marsily, G.
Monday, 20 April 1998
Lecture Room: GALLIENI 3
Chairperson: Mackay, R.

09:00 GOMEZ-HERNANDEZ, J.J.
Upscaling and downscaling: travelling up and down the scales ladder (Solicited Paper)

09:30 FENWICK, D.; **LENORMAND, R.**
Calculation of homogenized parameters for upscaling tracer flow through heterogeneous media

09:45 AVKHADIEV, F.G.; KACIMOV, A.R.
What is wrong in the Kozeny-Carman approach?

10:00 GIUDICI, M.; ORTUANI, B.; PARRAVICINI, G.; **PONZINI, G.**
Identification of flow model parameters and scale changes with the differential system method

10:15 CUYPERS, M.; **DE FOUQUET, C.**
Geostatistical simulation of an aquifer, conditined by head and transmissivity measurements

10:30 BREAK

Chairperson: Lenormand, R.

11:00 TODINI, E.
Extending to finite element schemes the Kalman filter based inverse problem solution

11:15 **CHRISTENSEN, S.**; COOLEY, R.L.
Evaluation of prediction intervals for expressing uncertainties in groundwater flow model predictions

11:30 **BUTERA, I.**; TANDA, M.G.
Reliability of transmissivity mean and variance estimation by processing a limited set of data

11:45 **CARRERA, J.**; MEIER, P.; MEDINA, A.
On the geostatistical inversion of interference tests (Solicited Paper)

12:15 NOETINGER, B.; **GAUTIER, Y.**
Determination of geostatistical parameters using pumping tests data

12:30 LEBBE, L.; GAUS, I.; **VAN MEIR, N.**
Use of well logs in an inverse numerical model during the interpretation of a double-pumping test

12:45 SCHAFMEISTER, M.-T.
Indicator kriging and indicator simulation: tools to integrate soft information into the parameter identification procedure in groundwater modelling

13:00 LUNCH

Chairperson: Schafmeister, M.T.

14:00 **KITTEROD, N.-O.**; LANGSHOLT, E.; GOTTSCHALK, L.
A hermeneutic approach for simulation of unsaturated flow in a heterogeneous formation

14:15 **CAPILLA, J.E.**; GOMEZ-HERNANDEZ, J.J.; RODRIGO, J.; SAHUQUILLO, A.
Stochastic inversion integrating exhaustive geophysical data in a non-Gaussian framework

14:30 **KROM, T.D.**; ROSBJERG, D.
Multivariant multifacies geostatistical simulation for hydraulic conductivity

14:45 **TACHER, L.**; TURBERG, P.
Influence of geophysically detected heterogeneities in alluvial deposits on regional scale groundwater models

15:00 **LAMB, R.**; BEVEN, K.; MYRABO, S.
Using distributed water table measurements to constrain model parameter and simulation uncertainty

Chairperson: Rosbjerg, D.

15:15 ADAR, E.M.
Assessment of transmissivities in arid alluvial basin by a mixing cell model appliled to spatial hydrochemical and isotopic distribution in groundwater

15:30 **PINAULT, J.-L.**; PAUVELS, H.
An inverse method for modelling mechanisms affecting groundwater quality

15:45 **BATH, A.H.**; DEGNAN, P.J.; JACKSON, C.P.
Heads and densities for calibrating a model of a low permeability groundwater system

16:00 **TOTSCHE, K.U.**; IGLER, B.; KNABNER, P.
Unbiased identification of nonlinear sorption characteristics by soil column outflow experiments

16:15 **ZECHNER, E.**; SAIERS, J.E.; GENEREUX, D.
Using water and tracer flux information at canal boundaries to improve aquifer parameter estimation: Biscayne Aquifer, Florida

16:30 END OF SUB-SESSION
17:00 Opening
19:30 Reception

Free Subscription

to

HESS

for ON-SITE registrants

HSA1 Hydrology and the Earth's crust .2 Identification of model parameters in groundwater hydrology - Poster Session

Convener: Giudici, M.
Co-Convener(s): de Marsily, G.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: AGORA 2 - HS

HS014 **LUNATI, I.**; BERNARD, D.; GIUDICI, M.; PONZINI, G.; PARRAVICINI, G.
Inverse problem and upscaling: comparison between the DS method and a classical statistical one

HS015 **KONTIO, K.**; NIEMI, A.; KUUSELA-LAHTINEN, A.
Calibration and upscaling of hydraulic characteristrics of 3D fracture networks in crystalline rock

HS016 TODINI, E.
Influence of parameter estimation in Kriging: an example of application

HS017 **SMIDTS, O.F.**; DEVOOGHT, J.; MEYUS, Y.; WEMAERE, I.; MARIVOET, J.
Sensitivity analysis and inverse problem for the sub-regional flow model of the neogene aquifer

HS018 ORTUANI, B.; **SAVI, F.**; GIUDICI, M.
Identification of flow parameters for a regional multilayered aquifer with the differential system method

HS019 **TYCHON, B.**; DE BACKER, L.W.; VANDER BORGHT, P.
Water electrical conductivity-waterflow as a low cost mean to define stormflow components and basin initial soil water content

HS020 OVCHINNIKOV, M.N.; KUSHTANOVA, G.G.
A filtrational model parameters and interpretation of hydrodynamic, acoustic and thermal measurements data

HS021 **BASTET, G.**; BRNAND, A.; VOLTZ, M.; QUETIN, P.; BORNAND, M.
Prediction of the water retention properties of soils: performance of available pedotransfer functions and development of news approaches

HS022 **SCHINDLER, U.**; STEIDL, J.; EULENSTEIN, F.; MUELLER, L.
Estimating and testing of soil hydrologic properties for the simulation of the water balance in a Pleistocene catchment by soil hydrological field measurements

HS023 **COUDRAIN-RIBSTEIN, A.**; GOUZE, P.; DE MARSILY, G.
Temperature - carbon dioxide partial pressure trends in confined aquifers

HS024 **SIMON, W.**; FESCH, C.; REICHERT, P.; HADERLEIN, S.; SCHWARZENBACH, R.
Continuous model: an extension of the classic two-region model

HS025 BATRAK, G.I.
The model of water exchange between cascade of radioactive water reservoirs of Techa River (south Ural) and groundwater, as the tool of verification of balance constructions

HS026 **KENNEDY, K.**; MÜLLER, I.; SCHÜRCH, M.
Documented contaminant transport rates - their use to reduce uncertainty and improve model prediction

HS027 CHRISTIANSEN BARLEBO, H.; HILL, M.C.; ROSBJERG, D.
Identification of zones and groundwater parameters at a heterogeneous aquifer, using a 3D inverse flow and transport model

HS028 **GOUZE, PH.**; MACKAY, R.; MUTEN, T.
Understanding the dual-permeability behaviour of fractured chalk using the example of atrazine contamination at a pumping station

HS029 **GRANLUND, K.**; REKOLAINEN, S.
Estimation of agricultural nitrate load to aquifers by one-dimensional transport model

HSA29A PURVANCE, D.T.; ANDRICEVIC, R.
Geoelectric measurements of hydraulic heterogeneity near a borehole: theory and field example *

HSA1 Hydrology and the Earth's Crust .3 Reactive mass transport: experimental studies of chemical, colloidal and biological processes

Convener: Gouze, P.
Co-Convener(s): Schäfer, G.
Tuesday, 21 April 1998
Lecture Room: GALLIENI 3
Chairperson: N.N.

11:00 **DÖRING, U.**; JAEKEL, U.; VEREECKEN, H.
Impact of sorption heterogeneity on reactive solute transport

11:15 VEREECKEN, H.; JAEKEL, U.
Determination of sorption parameter from breakthrough curves using asymptotic analysis

11:30 **MAYER, M.**; IRMLER, S.; DAHMKE, A.
Development of a reactive tracer for iron oxid/hydroxid quantification in sediments

11:45 LORD, L.D.; **DEMOND, A.H.**; HAYES, K.F.
The impact of speciation, parititioning and sorption on the migration of multiple fluid phases in the subsurface

12:00 TISCHNER, T.; NÜTZMANN, G.
Phosphorus leaching from sandy soils in dependence on hydrological conditions

12:15 GUIMERA, J.; DURO, L.; JORDANA, S.; BRUNO, J.; WIKBERG, P.
Redox front advance in low permeability media during interglacial periods

12:30 LUNCH

Chairperson: Vereecken, H.

14:00 GRESWELL, R.; LLOYD, J.W.; TELLAM, J.H.; PARKER, D.
The study of solute movement through rock using Positron Emission Tomography

14:15 **RENARD, F.**; GRATIER, J.-P.
Evidence for self-organization during reactive fluid flow in a porous medium

HS

14:30 HOLM, J.; **ENGESGAARD, P.**; JENSEN, K.H.; HENZE, M.; ALBRECHTSEN, H.J.
Effects of biomass growth on the hydraulic properties of groundwater aquifers

14:45 **BETTAHAR, M.**; BAVIERE, M.; DUCREUX, J.; MUNTZER, P.; SCHÄFER, G.
Surfactant flow behaviour in porous medium

15:00 **KENNEDY, K.**; MOSE, R.; ROSSI, P.; MÜLLER, I.
Comparative behavior of biocolloid and chemcial mass transport in heterogeneous porous media

15:15 **BAUMANN, T.**; NIESSNER, R.
Colloidal mass transfer of metal ions within porous media

15:30 **GUERIN, V.A.E.**; BUES, M.A.
Reactive mass transport with biodegradation: batch and column tests

15:45 **MARTINS, J.M.**; MERMOUD, A.
Behaviour of dinitrophenol herbicides in alluvial soil batches, columns and lysimeter

16:00 END OF SUB-SESSION

HSA1 Hydrology and the Earth's Crust .3 Reactive mass transport: experimental studies of chemical, colloidal and biological processes - Poster Session

Convener: Gouze, P.
Co-Convener(s): Schäfer, G.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: AGORA 2 - HS

HS030 MAZUKINA, S.I.; **MALINOVSKY, D.N.**
Physico-chemical modelling of water-solid interactions in tailings of Nepheline concentrate

HS031 COTRIM, S.; **GOLDENFUM, J.A.**
Experimental determination of physical parameters for the simulationof leachate flux and the transport of non-conservative, organic poluents

HS032 LENK, M.; SAENGER, N.; FISCHER, J.
The flow through river bed sediment and its consequence on transport and concentrations

HSA1 Hydrology and the Earth's crust .4 Coastal aquifer dynamics and groundwater recharge

Convener: Candela, L.
Co-Convener(s): Munoz-Carpena, R.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: AGORA 2 - HS
Chairperson: Morell, I.
Editors: Candela, L.; Munoz-Carpena, R.

HS034 **MORELL, I.**; TUNON, J.; JIMENEZ, J.R.
HSA1.4-008 Chemical evidence of surface water infiltration in the Castellon plain aquifer, Spain

HS035 MORELL, I.; GIMENEZ, E.; TULIPANO, L.;
HSA1.4-009 FIDELIBUS, M.D.
Seawater intrusion and saline regional waters. A synergic salinization

HS036 BELLOT, J.; HERNANDEZ, N.; CHIRINO, E.
HSA1.4-010 Effect of different vegetation type cover on the unsaturated flow profiles and water balances in semi-arid areas of Spain

HS037 EL AMRANI-PAAZA, N.; GARCIA-LOPEZ, S.;
HSA1.4-011 **BENAVENTE, J.**; CRUZ-SANJULIAN, J.J.
Modifications in a coastal aquifer induced by changes in water management upstream (Adra river delta, SE Spain)

HS038 GARCIA-ARSTEGUI, J.L.; PADILLA, F.;
HSA1.4-012 **HIDALGO, M.C.**; CRUZ-SANJULIN, J.J.
Water management in a southern coastal region of Spain (the Valez river). Simulation of groundeater and surface water flow for the proper freshwater budget

HSA1 Hydrology and the Earth's crust .4 Coastal aquifer dynamics and groundwater recharge

Convener: Candela, L.
Co-Convener(s): Munoz-Carpena, R.
Thursday, 23 April 1998
Lecture Room: GALLIENI 3
Chairperson: Usunoff, E.
Editors: Candela, L., Munoz-Carpena, R.

09:00 CUSTODIO, E.
HSA1.4-001 Current issues in coastal aquifer dynamics and groundwater recharge (Solicited Paper)

09:30 CONDESSO MELO, M.T.; EDMUNDS, W.M.;
HSA1.4-002 MARQUES DA SILVA, M.A.
Hydrogeochemistry and flow modelling of the Aveiro multilayer cretaceous aquifer

09:50 MAS-PLA, J.; BACH, J.; VIQALS, E.; TRILLA, J.;
HSA1.4-003 ESTALRICH, J.
Assessing groundwater exploitation in the Alt Empord coastal aquifer

10:10 **KOOI, H.**; GROEN, J.; DE VRIES, J.J.
HSA1.4-004 Problems associated with modelling sea water intrusion at large space and time scales

10:30 BREAK

Chairperson: Custodio, E.
Editors: Candela, L., Munoz-Carpena, R.

11:00 ABU-ZEID, N.; SANTARATO, G.; GIOVANNINI,
HSA1.4-005 A.
Investigation of aquifer boundaries and seawater intrusion in the coastal plain of the Po delta using geoelectric measurements

11:20 GUIMERA, J.; CANDELA, L.
HSA1.4-006 Comparison of different tracer methods to assess natural recharge in coastal aquifers

11:40 VARNI, M.; **USUNOFF, E.**; WEINZETTEL, P.;
HSA1.4-007 RIVAS, R.
The groundwater recharge in the Azul aquifer, central Buenos Aires province, Argentinia

12:00 **MORELL, I.**; TUNON, J.; JIMENEZ, J.R.
HSA1.4-008 Chemical evidence of surface water infiltration in the Castellon plain aquifer, Spain

12:05 MORELL, I.; GIMENEZ, E.; TULIPANO, L.;
HSA1.4-009 FIDELIBUS, M.D.
Seawater intrusion and saline regional waters. A synergic salinization

12:10 BELLOT, J.; HERNANDEZ, N.; CHIRINO, E.
HSA1.4-010 Effect of different vegetation type cover on the unsaturated flow profiles and water balances in semi-arid areas of Spain
12:15 EL AMRANI-PAAZA, N.; GARCIA-LOPEZ, S.;
HSA1.4-011 **BENAVENTE, J.**; CRUZ-SANJULIAN, J.J.
Modifications in a coastal aquifer induced by changes in water management upstream (Adra river delta, SE Spain)
12:20 GARCIA-ARSTEGUI, J.L.; PADILLA, F.;
HSA1.4-012 **HIDALGO, M.C.**; CRUZ-SANJULIN, J.J.
Water management in a southern coastal region of Spain (the Valez river). Simulation of groundeater and surface water flow for the proper freshwater budget
12:25 END OF SUB-SESSION

HSA2 Hydrology and landforms and fluvial systems
.1 Measurement of bedload and suspended sediment in turbulent flow

Convener: Laronne, J.B.
Co-Convener(s): Ergenzinger, P.
Monday, 20 April 1998
Lecture Room: MYKONOS
Chairperson: Ergenzinger, P.

14:00 **RUBIN, D.M.**; NELSON, J.M.; SHREVE, R.L.
Predicting bedload flux under waves
14:15 HABERSACK, H.; NACHTNEBEL, H.P.; LARONNE, J.B.
Effects of the 3-D turbulent flow field on trap measurements
14:30 DITTRICH, A.
Velocity field and resistance of flow over rough surfaces
14:45 KOZLOWSKI, B.
Influence of ring structures and shear stress distribution on river bed stability
15:00 BATALLA, R.J.; ROVIRA, A.
Bedload pulses associated with migration of sand dunes
15:15 LARONNE, J.; **GARCIA, C.**
Bursts and cyclical movement of sand/granules on mobile bed patches utilising video photography - the Tordera river
15:30 **DISSE, M.**; BARDOSSY, A.
Quantitative evaluation of bed load measurements in the river Rhine
15:45 COHEN, H.; **LARONNE, J.B.**
Continuous monitoring of bedload discharge in an extreme arid environment, Nahal Rahaf and Kanaim, Dead Sea, Israel
16:00 LIEBAULT, F.; CLEMENT, P.
Assessment of mountain stream annual bedload transport rates in the Drome watershed, France
16:15 **PFEIFFER, A.**; THIELE, M.; BROCKMANN, U.; PROCHNOW, D.
A tool for sizing flocs and particles in suspension: laser scattering combined with image analysis of video frames *
16:30 Concluding Remarks
16:45 END OF SESSION
17:00 Opening
19:30 Reception

HSA2 Hydrology and landforms and fluvial systems
.2 Morphological processes at the hillslope and river scale

Convener: Roth, G.
Co-Convener(s): Copertino, V.
Monday, 20 April 1998
Lecture Room: MYKONOS
Chairperson: Greco, M.

08:45 PELLETIER, J.D.
The transition from rilled to branched drainage in a hillslope evolution model
09:00 **HELMING, K.**; RÖMKENS, M.J.M.; PRASAD, S.N.; SOMMER, H.
Experimental investigation of drainage network development
09:15 **DARBOUX, F.**; DAVY, P.; GASCUEL-ODOUX, C.; HUANG, C.
Soil surface morphology effects on overland flow triggering
09:30 DYKES, A.P.
Hydrological controls on the maintenance of steep tropical slopes by mass movement
09:45 JONES, J.A.A.; CONNELLY, L.J.
A semi-distributed simulation model for natural pipeflow
10:00 LA BARBERA, P.; **LANZA, L.**
The morphological structure of multi-catchment regions
10:15 BOGAART, P.W.
Climate change and fluvial dynamics: a multimodel approach
10:30 END OF SUB-SESSION
17:00 Opening
19:30 Reception

HSA2 Hydrology and landforms and fluvial systems
.2 Morphological processes at the hillslope and river scale

Convener: Roth, G.
Co-Convener(s): Copertino, V.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: AGORA 2 - HS
Chairperson: Greco, M.

HS039 AGNESE, C.; CRIMINISI, A.
On the distribution functions of the peak and the time to peak of topological width function
HS040 LA BARBERA, P.; **LANZA, L.**
On the hydrological response of multi-catchment systems to large scale meteorological events

---

Attend the Business Meeting of your Section

on Wednesday, 22 April, 12.00-14.00, Lecture Room Gallieni 3

HSA2 Hydrology and landforms and fluvial systems .3 Sediment and contaminant transfers at the land/ocean interface

Convener: Leeks, G.
Co-Convener(s): Monaco, A.
Monday, 20 April 1998
Lecture Room: MYKONOS
Chairperson: N.N.

11:00 **SKOULIKIDIS, N.TH.**; ZACHARIAS, I.
Causes and effects of recent hydrological changes in Greece
11:20 MITINA, N.N.
The dynamics of main factors of genesis in river mouth regions under different anthropogenic load
11:40 BETHERS, U.; **SENNIKOVS, J.**; GRZHIBOVSKIS, R.; EBERHARDS, G.
An investigation of prolonged coastline development by coupled longshore/crosshore model
12:00 **RIMMELIN, P.**; DUMON, J.-C.
Transfer of dissolved inorganic nitrogen to a coastal lagoon: the case of the Arcachon Bay (France)
12:20 VERLAAN, P.A.J.
Loads of heavy metals from the Scheldt estuary to the North Sea
12:40 END OF SUB-SESSION
17:00 Opening
19:30 Reception

HSA3 Open session on hydrology and climate

Convener: O'Kane, J.P.
Co-Convener(s): Bonacci, O.; Pulido-Bosch, A.
Wednesday, 22 April 1998
Lecture Room: GALLIENI 2
Chairperson: O'Kane, J.P.

09:00 **CORTE-REAL, J.**; XU, H.; QIAN, B.
Downscaling GCM large-scale information to regional climate scenario: a weather generator based on daily circulation patterns
09:15 XU, C.-Y.
From GCMs to river flow: a review of downscaling and hydrological modelling approaches
09:30 **DUCHARNE, A.**; LAVAL, K.
Sensitivity of the global water cycle to soil water-holding capacity
09:45 **DE ROSNAY, P.**; POLCHER, J.; BRUEN, M.
A new parameterization of soil hydrology in the LMG GCM
10:00 **BURLANDO, P.**; GROSSI, G.; ROSSO, R.
Effects of potential climate change on hydrologic variability in the Arno basin
10:15 **SLOAN, W.T.**; EWEN, J.; KILSBY, C.G.; O'CONNELL, P.E.
Application of the UP modelling system to the Arkansas Red River basin
10:30 **CRISCI, A.**; GOZZINI, B.; MARACCHI, G.; PAGLIARA, S.; MENEGUZZO, F.
Extreme rainfalls in the chaning climate: regional analysis and hydrological implications
10:45 ROBERTS, G.; HUDSON, J.A.; CRANE, S.B.
The effects of possible future climate and land use change on streamflow from contrasting catchment areas in the UK and the available management options to ameliorate these effects
11:00 **VAN MIERLO, J.M.C.**; BARDOSSY, A.
Precipitation forecasting for different time scales
11:15 GOLDBERG, V.
Effect of coupling between a vegetation canopy and the atmosphere on energy and water transfer - results with the model HIRVAC
11:30 LUNCH
12:00 Business Meetings

Chairperson: N.N.

14:00 BATRAK, G.
Influence of climatic modifications on ground water and environment
14:15 SANTOS, M.J.; GONCALVES HENRIQUES, A.
A method for drought monitoring
14:30 **KRASOVSKAIA, I.**; GOTTSCHALK, L.; KUNDZEWICZ, Z.
Dimensionality of Scandinavian river flow regimes
14:45 MOTOVILOV, YU.G.
Simulation of climate change impacts on river runoff: coupling historical and modelling approaches
15:00 SHUMOVA, N.A.
Normal evapotranspiration in different land types: agricultural fields and river basins
15:15 **PILLING, C.**; JONES, J.A.A.
Downscaling precipitation and potential evapotranspiration from GCM output to drive a hydrological simulation model at catchment scale
15:30 END OF SESSION/Session HSA7 continues

HSA3 Open session on hydrology and climate - Poster Session

Convener: O'Kane, J.P.
Co-Convener(s): Bonacci, O.; Pulido-Bosch, A.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: AGORA 2 - HS

HS041 **CORTE-REAL, J.**; BERNARDINO, M.C.
Validation of GCM precipitation output using the method of fragments
HS042 BUSSAY, A.; **SZINELL, CS.**; HAYES, M.; SVOBODA, M.
Monitoring drought in Hungary using the Standardized Precipitation Index
HS043 UVO BERTACCHI, C.
Modelling runoff in Amazonia using sea surface temperature
HS044 **RANA, G.**; MASTRORILLI, M.; KATERJI, N.
Reference evapotranspiration estimating for hydrological purposes

Attend the Poster Session

HSA4 Open session on hydrology and weather

Convener: Burlando, P.
Tuesday, 21 April 1998
Lecture Room: GALLIENI 2
Chairperson: Burlando, P.

09:00 BURLANDO, P.
Introduction
09:10 **MENEGUZZO, F.**; VICENTE, G.A.; PAGLIARA, S.; GOZZINI, B.; BOTTAI, L.; PIERI, M.
Preliminary operational satellite rainfall estimates in the Mediterranean countries and hydrological consequences
09:30 **SANCHEZ-DIEZMA, R.**; ZAWADZKI, I.; SEMPERE TORRES, D.
An improvement of weather radar estimation of rain classifying radar rainfall estimations into convective and stratiform
09:50 **BORGA, M.**; ANAGNOSTOU, E.N.
Hydrologic assessment of real-time bias adjustment procedures in radar-rainfall estimation
10:10 HAIDEN, T.
Verification of model-predicted mesoscale rainfall patterns in an alpine area
10:30 BREAK

Chairperson: Borga, M.

11:00 BEROUD, J.-M.
Performance of the Swiss model: comparisons with observations at the hdyrological station of Rietholzbach
11:20 **BRANDSMA, T.**; BUISHAND, T.A.
Rainfall generator for the Rhine basin: multi-site genration of weather variables by nearest-neighbour resampling
11:40 BARDOSSY, A.; **GUENNI, L.**
Disaggregation of highly seasonal monthly rainfall by simulating annealling
12:00 UIJLENHOET, R.; CREUTIN, J.-D.
A stochastic model of rainfall at the raindrop scale
12:20 MONTANARI, A.
Storm structure variability in historical rainfall records observed in Italy
12:40 PEGRAM, G.; CLOTHIER, A.
Space-time modelling of rainfall in fine intervals: the "string of beads" model (Oral + Video)
13:00 LUNCH

Chairperson: Pegram, G.

14:00 CELLE, H.
Relation between the rainwater chemical and isotopic content and the meteorological parameters in the western Mediterranean region (Poster)
14:05 **BONI, G.**; GOLLO, P.; VERSACE, C.; SICCARDI, F.
Combined use of remotely sensed data and ground observation for the estimation of soil moisture conditions (Poster)
14:10 LA BARBERA, P.; LANZA, L.G.; **STAGI, L.; LOMBARDO, F.**
Influence of measuring errors due to uncalibrated raingauges on flood analysis and prediction (Poster)
14:15 SCHINDLER, H.
Note on heavy precipitation (Poster)
14:20 **PANAGOULIA, D.**; DIMOU, G.
Impact of global climate change on elevation zone precipitation statistics
14:40 ADLER, M.-J.; BUSUIOC, A.; COSOVANU, M.
Characteristic of high water and droughty periods in the Carpathian region induced by variabilities in the large scale circulation
15:00 **TRIGO, I.F.**; DACAMARA, C.; CORTE-REAL, J.M.
Non-linear statistical modelling of runoff using MARS
15:20 **IACOBELLIS, V.**; CLAPS, P.; FIORENTINO, M.
Role of climatic index in geomorphoclimatic derivation of flood frequency
15:40 Discussion
16:30 END OF SESSION

Video presentation: Wednesday 17.00-19.00 in the Poster Area

HSA4 Open session on hydrology and weather - Poster Session

Convener: Burlando, P.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: AGORA 2 - HS
Chairperson: N.N.

HS045 CELLE, H.
Relation between the rainwater chemical and isotopic content and the meteorological parameters in the western Mediterranean region
HS046 **BONI, G.**; GOLLO, P.; VERSACE, C.; SICCARDI, F.
Combined use of remotely sensed data and ground observation for the estimation of soil moisture conditions
HS047 LA BARBERA, P.; LANZA, L.G.; **STAGI, L.; LOMBARDO, F.**
Influence of measuring errors due to uncalibrated raingauges on flood analysis and prediction
HS049 SCHINDLER, H.
Note on heavy precipitation

HSA5 Open session on hydrology and surface hydrological processes

Convener: Kiely, G.
Co-Convener(s): Bormann, H.
Monday, 20 April 1998
Lecture Room: GALLIENI 2
Chairperson: Kiely, G.
Editor: Kiely, G.

08:30 **MENGELKAMP, H.-T.**; KIELY, G.; WARRACH, K.; RUHE, C.
HSA5-001 Simulation of runoff at plot and catchment scale (Solicited Paper)
09:00 **SZINELL, CS.**; ACS, F.
HSA5-002 Sensitivity of surface fluxes to structural differences in soil moisture simulation

09:15 ORLANDINI, S.
HSA5-003 A two-layer model of near-surface soil drying for time-continuous hydrologic simulations
09:30 **OLIOSO, A.**; CHAUKI, H.; BERTUZZI, P.
HSA5-004 Estimation of energy fluxes from thermal infrared, spectral reflectance, microwave data and SVAT modelling
09:45 **DEKKER, S.C.**; BOUTEN, W.
HSA5-005 Modelling forest transpiration from different perspectives
10:00 **FRÜHAUF, C.**; ZIMMERMANN, L.; BERNHOFER, CH.
HSA5-006 Comparison of forest evapotranspiration from ECEB measurements over a forest spruce stand with the water budget of a catchment
10:15 **ZIMMERMANN, L.**; FRUEHAUF, C.; SURKE, M.; BERNHOFER, CH.
HSA5-007 The role of interception in the water budget of spruce stands in the Eastern Ore Mountains/Germany
10:30 BREAK

Chairperson: Mengelkamp, H.-T.
Editor: Kiely, G.

11:00 **SAXENA, R.K.**; JAEDICKE, C.; LUNDIN, L.-C.
HSA5-008 Comparison of lake evaporation estimated by isotope mass-balance, bulk-aerodynamic & Bowen ratio methods
11:15 WIGNERON, J.-P.; CALVET, J.-C.; CHANZY, A.
HSA5-009 Estimating the root-zone soil moisture from remote sensing observations
11:30 **MOTOVILOV, YU.G.**; GOTTSCHALK, L.; ENGELAND, K.
HSA5-010 Modelling of hydrological cycle components in the NOPEX area
11:45 DIERMANSE, F.
HSA5-011 Representation of natural heterogeneity in rainfall-runoff models
12:00 NIRUPAMA; TAKASAO, T.; SHIIBA, M.; TACHIKAWA, Y.
HSA5-012 A generalised expression for soil moisture storage capacity distrubution
12:15 **BORMANN, H.**; DIEKKRÜGER, B.; RENSCHLER, C.
HSA5-013 Regionalization concepts for hydrological modelling on different scales using a physically based model: results and evaluation
12:30 YOUNG, M.D.B.
HSA5-014 Assessment and development of pedotransfer functions for semi-arid sub-Saharan Africa
12:45 **MENZIANI, M.**; PUGNAGHI, S.; PILAN, L.; SANTANGELO, R.; VINCENZI, S.
HSA5-015 Field experiments to study evaporation from a saturated bare soil
13:00 LUNCH

Chairperson: Bormann, H.
Editor: Kiely, G.

14:00 **MOEHRLENS, C.**; KIELY, G.; PAHLOW, M.
HSA5-016 Evaporation from a humid grassland catchment
14:15 **SEUNTJENS, P.**; CORNELIS, C.; DE BRUCKER, N.; GEUZENS, P.
HSA5-017 Derivation of functional layers in a podzol toposequence for simulating cadmium transport
14:30 **WENG, PH.**; COUDRAIN-RIBSTEIN, A.; BENDJOURDI, H.
HSA5-018 Hydrologic measurements in an alluvial wetland
14:45 PERUMAL, M.; RANGA RAJU, K.G.; O'CONNELL, P.E.
HSA5-019 Field applications of a variable paramter muskingum method
15:00 GREGORIS, Y.; SCHOBER, A.
HSA5-020 Genetic algorithms, neural networks: is it possible to use these "modern concepts" for hydrologic models?
15:15 **TOTH, E.**; MONTANARI, A.; BRATH, A.
HSA5-021 Real-time flood forecasting via combined use of conceptual and stochastic models
15:30 **BENAVENTE, J.**; ALMECIJA, C.; CARRASCO, F.
HSA5-022 Response to extreme hydrological situations in the storage of an anthropogenically affected salt lake
15:45 **KOOI, H.**; DE VRIES, J.J.
HSA5-023 Land subsidence and hydrodynamic compaction of sedimentary basins
16:00 **DUCHARNE, A.**; KOSTER, R.D.; SUAREZ, M.J.; KUMAR, P.
HSA5-024 Evaluation of a catchment-based land surface model for GCMS
16:15 **SCHULZ, J.-P.**; DÜMENIL, L.; POLCHER, J.
HSA5-025 Impact of different numerical coupling techniques between surface and atmosphere in a GCM
16:30 **KLEIDON, A.**; HAGEMANN, S.
HSA5-026 Influence of rooting depth on the simulated climate of a GCM
16:45 **HAGEMANN, S.**; KLEIDON, A.
HSA5-027 Influence of rooting depth on the simulated hydrological cycle of a GCM
17:00 END OF SESSION
17:00 Opening
19:30 Reception

HSA5 Open session on hydrology and surface hydrological processes - Poster Session

Convener: Kiely, G.
Co-Convener(s): Bormann, H.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 2 - HS
Chairperson: Bormann, H.
Editor: Kiely, G.

HS051 GREGORIS, Y.; SCHOBER, A.; BERNARD, P.
HSA5-028 CORIANDRE, TOPMODEL, DPFT: comparison of three watershed model concepts in research of an appropriate real time flood forecasting tool

HS052 AHONEN, J.; RANKINEN, K.
HSA5-029 SMART2 model application to two forested catchments in Finland: effects of emission reduction scenarios

HS053 **CORTADA HINDERSIN, F.**; SEMPERE TORRES, D.; KEBEN, K.; FRANKS, S.
HSA5-030 Modelling by using topographic information. Application of TOPMODEL to a Mediterranean basin

HS054 **OLTCHEV, A.**; IBROM, A.; KREILEIN, H.; MORGENSTERN, K.; GRAVENHORST, G.
HSA5-031 Evaluation of the response of Spruce forest ecosystem on climatic changes: results of modelling experiments

HS055 SLEPAK, Z.
HSA5-032 Geophysics for studying the dynamics of near-surface underground water in modern urban conditions
HS056 GALBIATI, G.L.; **SAVI, F.**
HSA5-033 Temporal variability of effective values of soil hydraulic properties at the filed scale
HS057 GONCHAROV, A.V.; TUGAROVA, M.A.
HSA5-034 Hydrocarbons and geochemical processes in the bottom environment of Russian seas coastal zones
HS058 TUGROVA, M.A.; GONCHAROV, A.V.;
HSA5-035 KOVALCHUC, D.V.
The transformation of dynamic parameters of oil-contaminated sediments the north European Russia
HS059 KUCHMENT, L.S.; POUROVSKYI, L.V.
HSA5-036 Hurst's law in the variations of the Kaspian sea level and the estimating the ranges of this variations

HSA6 Hydrology and soil processes .1 Recent advances in tracers in vadose zone hydrology

Convener: Tyler, S.W.
Co-Convener(s): Edmunds, W.M.; Flury, M.; Scanlon, B.R.
Tuesday, 21 April 1998
Lecture Room: MYKONOS
Chairpersons: Tyler, S.W.; Scanlon, B.R.

08:45 FLURY, M.
Use of dye tracers for the identification of solute transport in the vadose zone
09:00 KUNG, K.-J.S.; KLADIVKO, E.; JAYNES, D.; GISH, T.; KANWAR, R.; HELLING, C.F.; GEOHRING, L.D.; STEENHUIS, T.S.
Partition preferential flow by sequentially applying conservative tracers
09:15 **STAMM, C.**; FLÜHLER, H.; SERMET, R.; LEUENBERGER, J.; WUNDERLIN, H.; WYDLER, H.
Preferred flow paths in a drained grassland plot
09:30 ZEHE, E.; PLATE, E.
Preferential flow in a small agricultural catchment: field study and upscaling concept
09:45 LICHNER, L.
Radioactive tracer techniques used in soil hydrology
10:00 **DAHAN, O.**; NATIV, R.; ADAR, E.M.; BERKOWITZ, B.
Flow through fractures in Vadose chalk
10:15 **WEISBROD, N.**; NATIV, R.; ADAR, E.; RONEN, D.
Colloidal particles as natural tracers for processes in unsaturated fractured chalk
10:30 BREAK

Chairpersons: Flury, M.; Edmunds. W.M.

11:00 SCANLON, B.R.
Uncertainties in estimating water fluxes and dating pore water in an arid unsaturated system
11:15 GEE, G.W.; **TYLER, S.W.**
Analysis of chloride mass balance in a field lysimeter
11:30 GUTIERREZ-OJEDA, C.
Recharge estimation of the Conejos-Medanos aquifer system, northern Mexico
11:45 **GEHRELS, J.C.**; DE VRIES, J.J.
Application of chloride and oxygen-18 as vadose zone tracers under temperature climatic conditions
12:00 **SONNLEITNER, M.**; SCHULIN, R.
Non-destructive investigation of the root zone with help of a deuterium-tracer
12:15 **VANDERBORGHT, J.**; DIELS, J.; GONZALEZ, C.; JACQUES, D.; KIM, D.-J.; MALLANTS, D.; TIMMERMAN, A.; VANCLOOSTER, M.; HUBRECHTS, L.; FEYEN, J.
Overview of inert tracer experiments to characterise transport properties of some Belgian soils
12:30 END OF SUB-SESSION

HSA6 Hydrology and soil processes .1 Recent advances in tracers in vadose zone hydrology - Poster Session

Convener: Tyler, S.W.
Co-Convener(s): Edmunds, W.M.; Flury, M.; Scanlon, B.R.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 2 - HS
Chairperson: Tyler, S.W.

HS061 **BAUMANN, T.**; SCHNEIDER, M.; NIESSNER, R.
Application of sorptive tracers within wast disposals
HS062 **BELOUSOVA, A.P.**; DUDUKALOV, A.P.
Field investigation of the processes of highly mineralized brine migration in the unsaturated zone
HS063 ELIET, V.; **BIDOGLIO, G.**; FERRARI, D.; SENA, F.; SPRINGER, A.; NIESSNER, R.; PANNE, U.
Multiplexed four-dimentional fiber-optic fluorescence for in-situ detection of soil and groundwater tracers
HS064 **FEYEN, H.**; PAPRITZ, A.; WUNDERLI, H.; FLÜHLER, H.
A multiple tracing experiment to detect flowpaths in forest soils
HS065 GANDOLA, F.; ABRIAK, N.E.; HAVERKAMP, R.
Characterization of infiltration in unsaturated porous medium using fluorescence effects
HS066 **GERARD-MARCHANT, P.**; BEAUDOING, G.; CALMELS, P.
Radioactive tracers for the in situ and laboratory determination of the hydraulic properties of slowly permeable porous material
HS067 JACQUES, D.; **TIMMERMAN, A.**; FEYEN, J.
Measuring water flow and solute transport under natural boundary conditions in a loamy soil profile
HS068 SCHNEGG, P.-A.
An inexpnensive flow-through field fluorometer for tracer tests
HS069 **WILLIAMS, A.**; WARD, R.
The use of fluorescent microspheres as tracers in the unsaturated zone of the Chalk

HS070 **PEDERSEN, T.S.**; TORGERSEN, J.; ALESTRÖM, P.
Tagged DNA-molecules as tracers in hydrogeology

HS070A **LICHNER, L.**; SVOBODA, A.; CIPAKOVA, A.
Cadmium transport in a structured loamy soil

HSA6 Hydrology and soil processes .2 Scale problems of soil hydrological measuring techniques

Convener: Huwe, B.
Co-Convener(s): Scherrer, S.
Tuesday, 21 April 1998
Lecture Room: MYKONOS
Chairperson: N.N.

14:00 **OSWALD, B.**; PELICAN, P.; ERNI, D.; BENEDICKTER, H.R.; BÄCHTOLD, W.; FLÜHLER, H.
Process tomography in the hydrological sciences: first results (Solicited Paper)

14:30 **KÄMPF, M.**; HOLFELDER, T.; MONTENEGRO, H.
Inspection of the flow patterns and parameter estimation of capillary barrier systems at different scales

14:45 **VILAS, M.**; SALVANY, C.; JOSA, R.; LATRON, J.; HERETER, A.; DALMAU, L.; CAAMERAS, N.
Characterization of soil hydraulic properties of a field unit using different methods

15:00 **SALVANY, C.**; LLORENS, P.; GALLART, F.
Daily oscillations in soil tensiometry: a field experience

15:15 **CHANZY, A.**; GAUDU, J.C.; MOHRATH, D.; CHADOEUF, J.
Soil moisture monitoring at field scale using automatic capacitance probes

15:30 **MERZ, B.**; BARDOSSY, A.
Infiltration experiments and scale effects (Solicited Paper)

16:00 **DEURER, M.**; DUIJNISVELD, W.H.M.; BOETTCHER, J.
Variography of water characteristic functions at the 10 m scale in a coniferous forest: comparison of laboratory and field methods

16:15 **FEYEN, H.**; PAPRITZ, A.; WYDLER, H.; FLÜHLER, H.
Simple time series models to describe nonlinear runoff generation

16:30 PIEHLER, H.; HUWE, B.
Scale effects of transport processes: application of renormalization and perturbation theory

16:45 END OF SUB-SESSION

HSA6 Hydrology and soil processes .2 Scale problems of soil hydrological measuring techniques - Poster Session

Convener: Huwe, B.
Co-Convener(s): Scherrer, S.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 2 - HS

HS072 **ROGASIK, H.**; WENDROTH, O.; KOSZINSKI, S.; POHL, W.
Assessment of morphological properties based on calculation of internal and external heterogeneity

HS073 **SPERL, C.**; STANJEK, H.
The accuracy of water content measurements with ground-penetrating radar: a model experiment

HS074 KLEIN, M.
Modelling water dynamics in a large field lysimeter *

HS075 BLYTH, E.
Representing soil water with simple models

HSA7 Open session on hydrology and living communities

Convener: O'Kane, J.P.
Wednesday, 22 April 1998
Lecture Room: GALLIENI 2
Chairperson: O'Kane, J.P.

15:30 **BONNET, M.P.**; WESSEN, K.; IMBERGER, J.
3D limnological modelling: methodology and test case

15:45 REGNIER, P.; WOLLAST, R.; O'KANE, J.P.
Modelling autotrophic and heterotrophic activity in macro tidal estuaries *

16:00 **CAMPANA, M.E.**; SMITH, K.E.; MORRICE, J.A.; VALETT, H.M.; DAHM, C.N.; UNNIKRISHNA, P.V.; BAKER, M.A.
Hyporheic zone residence times in first-order streams

16:15 PACHUTA, K.
The chosen plant communities influence on river bed shape and bottom position changes *

16:30 BUCKLEY, A.; O'KANE, J.P.
Chaotic behaviour in models of aquatic ecosystems *

16:45 END OF SESSION

* not included in the Book of Abstracts

HSA8 Hydrology and chemical processes - restoration of aquifers: natural and artificial attenuation
.1 Natural attenuation and intrinsic bioremediation: field studies I

Convener: Grathwohl, P.
Co-Convener(s): Totsche, K.-U.
Thursday, 23 April 1998
Lecture Room: GALLIENI 2
Chairperson: Grathwohl, P.

14:00 CHRISTENSEN, T.H.
Natural attenuation of landfill leachate plumes? (Solicited Paper)

14:30 **SCHIEDEK, T.**; GRATHWOHL, P.; TEUTSCH, G.
Natural attenuation and plume lengths of organic contaminants

14:45 **ANTHONY, T.**; BARKER, J.F.
Investigation into the natural attenuation of a dissolved creosote plume

15:00 EISWIRTH, M.; HOETZL, H.; REICHERT, B.; WEBER, K.
Natural attenuation processes in a BTEX plume

15:15 **SCHIRMER, M.**; FRIND, E.O.; BARKER, J.F.
A natural gradient field experiment at Borden - investigation of natural attenuation processes of BTEX and MTBE

15:30 **VISSERS, M.J.M.**; FRAPPORTI, G.; HOOGENDOORN, J.H.; VRIEND, S.P.
Hydrochemistry is more than transport using hydrology

15:45 **KARAPANAGIOTI, H.K.**; SABATINI, D.A.; GRATHWOHL, P.
Attenuation by natural and enhanced sorption of HOCs in a landfill leachate

16:00 APPERT-COLLIN, J.C.; DRIDI-DHAOUADI, S.; **SIMONNOT, M.O.**; SARDIN, M.
Effects of the non linear sorption of polycyclic aromatic hydrocarbons on their transport properties in organic soils

16:15 RÜGGE, K.; HOFSTETTER, TH.B.; **HADERLEIN, S.B.**; BJERG, P.L.; KNUDSEN, S.; ZRAUNIG, C.; MOSBAEK, H.; CHRISTENSEN, TH.H.
Characterization of predominant reductants in an anaerobic aquifer by reactive probe compounds

16:30 **WEIGAND, H.**; TOTSCHE, K.U.; KOEGEL-KNABNER, I.; ANNWEILER, E.; RICHNOW, H.H.
Anthracene transport through an unsaturated layered soil column as influenced by retardation and intrinsic biodegradation

16:45 END OF PART I

Hydrology and Earth System Sciences

the new EGS journal for the publication of original research in hydrology viewed as a separate geoscience

---

HSA8 Hydrology and chemical processes - restoration of aquifers: natural and artificial attenuation
.1 Natural attenuation and intrinsic bioremediation: field studies - Poster Session

Convener: Grathwohl, P.
Co-Convener(s): Totsche, K.-U.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - HS
Chairpersons: Grathwohl, P.; Totsche, K.-U.

HS076 **DANZER, J.**; KLEIN, R.; SETARGE, B.; GRATHWOHL, P.
In-situ characterization of NAPL aquifer contamination by partitioning and interfacial tracers

HS077 **FERREIRA, S.B.**; GRATHWOHL, P.; ZUQUETTE, L.V.
Partition of aromatic hydrcarbons from oxygenated gasolines into water

HS078 **LENDVAY, J.M.**; DEAN, S.M.; ANDRIAENS, P.
Temproal and spatial trends with biogeochemistry at a groundwater-surface water interface: implications for microbial bioremediation processes

HS079 **HERFORT, M.**; PTAK, T.; TEUTSCH, G.
Investigation of natural attenuation of organic groundwater contaminants at field scale

HS080 **BUZZELLI, M.**; CARRERA, P.; GAVINELLI, M.
Intrinsic bioremediation of virgin naphta impacted site

HS081 **SCHEIBKE, R.**; OTTENBREIT, M.; GEISEN, S.
Monitoring contaminated sites - balancing treatment expenses and the costs for thorough site characterisation

HS082 **SIMONNOT, M.O.**; HARMAND, B.; SARDIN, M.
Modelling the transient transport of non linearly interacting dissolved volatile organic compounds: experimental validation by column experiments

HS083 **RICHNOW, H.H.**; ANNWEILER, E.; MICHAELIS, W.
Tracing the transformation of polycyclic aromatic hydrocarbons (PAH) during microbial degradation with stable isotope labelled substances in soils

HS084 KOMATINA, S.
Role of geophysics in aquifer vulnerability assessment

HS085 DUDAREV, O.V.; ANIKIYEV, V.V.; SAID, M.A.; BOTSUL, A.I.; UTKIN, I.V.; SHUMILIN, YE.N.
Features of the geochemical anomaly assumed from the contents of some chemical elements in Mediterranean Sea waters near the Nile river delta

HS086 **YASUHARA, M.**; MARUI, A.; KAZAHAYA, K.
Differences in stable isotopic composition of groundwater between the slopes - a case study on Mt. Yatsugatake and Mt. Fuji, Japan

HS087 GUIMERA, J.; FONT, J.; CARRERA, J.; CARDONA, F.
Karst in an active salt rock dome

HSA8 Hydrology and chemical processes - restoration of aquifers: natural and artificial attenuation
.1 Natural attenuation and intrinsic bioremediation: field studies II

Convener: Grathwohl, P.
Co-Convener(s): Totsche, K.-U.
Friday, 24 April 1998
Lecture Room: GALLIENI 2
Chairperson: Totsche, K.-U.

08:30 **REINHARD, M.**; LEBRON, C.A.
Natural attenuation of aromatic hydrocarbon and haloaliphatic compounds in ground water (Solicited Paper)
09:00 **FASS, S.**; GANAYE, V.; LOUIS-ROSE, K.; VOGEL, T.; BLOCK, J.-C.
Biodegradation of organics in soil
09:15 **ADRIAENS, P.**; LENDVAY, J.V.; BARCELONA, M.J.; HAACK, S.K.; SAUCK, W.
Evaluation of natural bioattenuation at the macro- and microscopic level: field implementation of novel monitoring methods
09:30 HOEHENER, P.; BOLLIGER, C.; HUNKELER, D.; ZEYER, J.
Intrinsic bioremediation of a petroleum hydrocarbon-contaminated aquifer: assessment by stable carbon and sulfur isotopes
09:45 KREUSER, T.; **STORM VAN LEEUWEN, E.**
In situ bioremediation in case studies, NL
10:00 PACKWOOD, C.R.X.; LERNER, D.N.
An investigation of the biodegradation of phenolics within the Vadose zone
10:15 **GOVINDARAJU, R.S.**; NEDUNURI, K.V.; BANKS, M.K.; SCHWAB, A.P.
Field evaluation of phytoremediation strategies in TPH degradation
10:30 END OF SUB-SESSION

HSA8 Hydrology and chemical processes - restoration of aquifers: natural and artificial attenuation
.2 New developments in in-situ treatment of subsurface contaminations

Convener: Rijnaarts, H.H.M.
Co-Convener(s): Bosma, T.N.
Thursday, 23 April 1998
Lecture Room: GALLIENI 2
Chairperson: N.N.

11:00 RIJNAARTS, H.H.M.
Introduction
11:15 **SABATINI, D.**; KNOX, R.; HARWELL, J.
Surfactant selection for enhanced subsurface remediation: laboratory and field observations (Solicited Paper)
11:45 **JOSEF, R.**; BARCZEWSKI, B.; KOSCHITZKY, H.-P.
Hydraulic in-situ remediation techniques with surfactants: optimization of hydraulic systems
12:00 **SCHLICKER, O.**; WÜST, W.; DAHMKE, A.
The effect of dissolved inorganic groundwater constituents on the reactivity of FE(O)-reactive walls - laboratory studies and thermodynamic calculations
12:15 **SCHÜTH, C.**; KRAFT, S.; GRATHWOHL, P.; REINHARD, M.
Catalytic hydrogenation of aromatic compounds with palladium - influence of support materials on deactivation
12:30 **VAN LIERE, H.C.**; VAN AALST-VAN LEEUWEN, M.A.; RIJNAARTS, H.H.M.
In situ biodegradation of hexachlorocyclohexane (HCH)
12:45 BOSMA, T.N.P.
Enhancement of biodegradation in biologically activated zones
13:00 END OF SUB-SESSION

HSA8 Hydrology and chemical processes - restoration of aquifers: natural and artificial attenuation
.2 New developments in in-situ treatment of subsurface contaminations - Poster Session

Convener: Rijnaarts, H.H.M.
Co-Convener(s): Bosma, T.N.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - HS

HS088 BIESTER, H.; SCHUHMACHER, P.; MUELLER, G.
Mercury removal from groundwater - activated S-charcoal adsorption versus Hg2+ reduction by tin and Hg(0) stripping
HS089 **ABBONDANZI, F.**; IACONDINI, A.; MALASPINA, F.; GAGNI, S.; CARNEVALI, M.; HANNULA, H.; SERRA, R.
Preliminary kinetic studies for an in situ bioremediation treatment: toluence removal from an aquifer
HS090 BONKHOFF, K.; **DIERKES, F.**; HAEGEL, F.-H.; SUBKLEW, G.; THIELE, P.
Bicontinuous microemulsions - a new extraction medium for in situ remediation
HS091 **VAN GROENESTIJN, J.W.**; GRIFFIOEN, J.; BRUNIA, A.; VAN BUIJSEN, H.J.J.
In situ bio-electrochemical nitrate removal from groundwater
HS092 SKOURAS, E.
Dissolution and mobilization of dispersed NAPL in porous media
HS093 AVRAAM, D.G.; **PAYATAKES, A.C.**
Dissolution and mobilization of dispersed NAPL in porous media by surfactant flooding
HS094 DAVIDSON, L.D.
Anthropogenic pollution of river basins in the former Soviet Union

HS094A **KOUSSIS, A.D.**; PESMAJOGLOU, S.; SYRIOPOULOU, D.
A criterion for the use of the instantaneous reaction assumption in the modelling of the biodegradation of hydrocarbons in aquifers *

HSA8 Hydrology and chemical processes - restoration of aquifers: natural and artificial attenuation .3 Redox processes in aquifers - Poster Session

Convener: Behra, Ph.
Co-Convener(s): Isenbeck-Schröter, M.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - HS
Chairperson: Isenbeck-Schröter, M

HS095 **LOYAUX, S.**; REFAIT, PH.; LECOMTE, P.; EHRHARDT, J.J.; GENIN, J.M.
The reduction of chromate ions by Fe(II) species

HS096 **JORAND, F.**; APPENZELLER, B.; ABDELMOULA, M.; BLOCK, J.C.; GENIN, J.M.
Ferrogenous minerals formation in pure culture of Fe(III) reducing bacteria

HS097 LEDOUX, E.; **MADE, B.**; LOUVAT, D.; BLANC, P.L.
Hydro-geochemical modelling of a reactor zone in Bangombe (Gabon): characterization of redox processes

HS098 **MALINOVSKY, D.N.**; KUDRYAVTSEVA, L.P.
Aspects of contaminants migration from waste rock of Khibiny mines

HS099 ZHENG, Z.; **AAGAARD, P.**
Analyses of the anaerobic degradation of water-soluble organic compounds in aquific environments

HSA8 Hydrology and chemical processes - restoration of aquifers: natural and artificial attenuation .3 Redox processes in aquifers

Convener: Behra, Ph.
Co-Convener(s): Isenbeck-Schröter, M.
Friday, 24 April 1998
Lecture Room: GALLIENI 2
Chairperson: Behra, Ph.

11:00 **JAKOBSEN, R.**; HANSEN, L.K.; POSTMA, D.
Rates of terminal electron accepting processes in an anoxic aquifer (Solicited Paper)

11:30 **PEIFFER, S.**; PEINE, A.; TRITSCHLER, A.; KÜSEL, K.
Redox chemistry of iron and sulfur at the interface between sediment and ground-water of acid mine lakes

11:45 **GENIN, J.-M.R.**; REFAIT, PH.; SIMON, L.; ABDELMOULA, M.; LOYAUX, S.; EHRHARDT, J.-J.; BOURRIE, G.; TROLARD, F.
Potentiality for using Fe(II)-Fe(III) green rust mineral for water remediation by redox processes

12:00 EBERT, M.; ISENBECK-SCHRÖTER, M.; **KÖLLING, M.**
Redution and retention of chromate contaminations under sulphidic conditions - system evaluation in column experiments

12:15 BONNISSEL-GISSINGER, P.; **BEHRA, PH.**; EHRHARDT, J.J.
Effect of pH on surface composition of pyrite

12:30 **MÜLLER, J.**; SEILER, K.-P.
Bonding and mobility of heavy metals in roasted pyrites - a comparison between sequential extraction and long-term elution experiments

12:45 **BASBERG, L.**; ENGESGAARD, P.; DAGESTAD, A.
Gechemical transport modelling of leachate attenuation in quarternary sediments dominated by pyrite reduction and calcite dissolution: model testing against field data from the Trandum Landfill, Norway

13:00 LUNCH

Chairperson: Isenbeck-Schröter, M

14:00 HOFSTETTER, TH.B.; **HADERLIEN, S.B.**; SCHWARZENBACH, R.P.
Abiotic reduction of organic pollutants under ferrogenic conditions (Solicited Paper)

14:30 LIGER, E.; **CHARLET, L.**
Catalytic role of mineral surfaces in redox reactions in subsurface environment

14:45 **MERZ, CH.**; WINKLER, A.; SIECKMANN, I.
Migration behavior of trace metals under changing redox conditions in the shallow aquifer of a mesoscale Oder river polder (Oberbruch)

15:00 BUTLER, E.C.; HAYES, K.F.
Trends in the transformations of halogenated organic pollutants by iron sulfide

15:15 KOZEL, R.; **KENNEDY, K.**; ZOBRIST, J.; ROSSI, P.
Redox condition heterogeneity and its influence on chemical, microbiological and hydrodynamic characteristics in a waste plume (W. Switzerland)

15:30 BREAK

Chairperson: Behra, Ph.

16:00 **RIOU, C.**; GRUAU, G.; DIA, A.; MOLENAT, J.; DURAND, P.
Rare Earth elements as tracers of redox processes in shallow groundwaters

16:15 PEIFFER, S.
Redox measurements - a theoretical consideration based on electrode kinetics

16:30 **LOYAUX, S.**; REFAIT, PH.; LECOMTE, P.; EHRHARDT, J.J.; GENIN, J.M.
The reduction of chromate ions by Fe(II) species (Poster)

16:35 **JORAND, F.**; APPENZELLER, B.; ABDELMOULA, M.; BLOCK, J.C.; GENIN, J.M.
Ferrogenous minerals formation in pure culture of Fe(III) reducing bacteria (Poster)

16:40 LEDOUX, E.; **MADE, B.**; LOUVAT, D.; BLANC, P.L.
Hydro-geochemical modelling of a reactor zone in Bangombe (Gabon): characterization of redox processes (Poster)

16:45 **MALINOVSKY, D.N.**; KUDRYAVTSEVA, L.P.
Aspects of contaminants migration from waste rock of Khibiny mines (Poster)
16:50 ZHENG, Z.; **AAGAARD, P.**
Analyses of the anaerobic degradation of water-soluble organic compounds in aquific environments (Poster)
16:55 END OF SESSION

HSA9 Hydrology and applied mathematics .1 Process representation in hydrological models - can it be achieved? I

Convener: Gallart, F.
Co-Convener(s): White, S.M.
Thursday, 23 April 1998
Lecture Room: GALLIENI 3
Chairperson: Beven, K.
Editors: White, S.M.; Gallart, F.

14:00 BEVEN, K.
HSA9.1-001 Model identifiability and constraining process representations in modelling runoff production (Solicited Paper)

The VAHMPIRE project

14:30 **GALLART, F.**; WHITE, S.M.
HSA9.1-002 Interaction between hydrological modelling and field work at the catchment scale: the VAHMPIRE project
14:45 **ANDERTON, S.**; WHITE, S.
HSA9.1-003 Problems associated with the parameterization of physically-based hydrological models: an example
15:00 **LATRON, J.**; SALVANY, C.; GALLART,F.
HSA9.1-004 From point field meaurements to catchment data sets for internal validation of models. I- example of the catchment water reserve
15:15 **LLORENS, P.**; WHITE, S.M.
HSA9.1-005 From point field measurements to catchment data sets for internal validation of models. II expample of rainfall interception
15:30 **ANDERTON, S.**; LATRON, J.; LLORENS, P.;
HSA9.1-006 QUINN, P.; BUCHTELE, J.; CIARAPICA, L.
Comparative validation of hydrological models: preliminary results
15:45 **SALVANY, C.**; LATRON, J.; LLORENS, P.;
HSA9.1-007 GALLART, F.
Soil water dynamics in a terraced system
16:00 **QUINN, P.**; ANDERTON, S.
HSA9.1-008 Nesting localized models and data within catchment models and data
16:15 **CIARAPICA, L.**; TODINI, E.
HSA9.1-009 TOPKAPI: a new approach to rainfall-runoff modelling
16:30 HIGY, C.; IORGULESCU, I.; MUSY, A.
HSA9.1-010 Digital terrain analysis of the Haute-Mentue catchment (Switzerland) and scale effect for hydrological modellisation with TOPMODEL
16:45 **JÖRIN, C.**; IORGULESCU, I.; MUSY, A.
HSA9.1-011 Uncertainty analysis of geochemical mixing models and implications for processes conceptualisation
17:00 END OF PART I

HSA9 Hydrology and applied mathematics .1 Process representation in hydrological models - can it be achieved? - Poster Session

Convener: Gallart, F.
Co-Convener(s): White, S.M.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - HS
Chairperson: White, S.M.
Editors: White, S.M.; Gallart, F.

HS100 SEIBERT, J.; UHLENBROOK, S.;
HSA9.1-029 LEIBUNDGUT, C.; HALLDIN, S.
Multiscale calibration and validation of a conceptual rainfall-runoff model
HS101 **GOMEZ-PLAZA, A.**; CASTILLO, V.M.;
HSA9.1-030 MARTINEZ-MENA, M.
Hydrologic similarity: dimensionless similarity parameters obtained from KINEROS model
HS102 **CASTILLO, V.**; MARTINEZ-MENA, M.
HSA9.1-031 An assessment of three models ability to represent the rainfall-runoff relationships from semiarid areas
HS103 CHUBARENKO, I.P.
HSA9.1-032 Field experiment in an effort of modelling
HS104 GAVRILOV, A.G.; NEPRIMEROV, N.N.; LI,
HSA9.1-033 L.; OVHCINNIKOV, M.N.; SHTANIN, A.V.
Hydrodynamic methods for evaluation of field of saturation by the oil a stratum

HSA9 Hydrology and applied mathematics .1 Process representation in hydrological models - can it be achieved? II

Convener: Gallart, F.
Co-Convener(s): White, S.M.
Friday, 24 April 1998
Lecture Room: GALLIENI 3
Chairperson: White, S.M.
Editors: White, S.M.; Gallart, F.

Processes

08:30 SLOAN, W.
HSA9.1-012 A physics based storage-discharge function for modelling groundwater discharge
08:45 SEIBERT, J.; BISHOP, K.
HSA9.1-013 Groundwater dynaics in conceptual rainfall-runoff models - looking for more realistic concepts
09:00 **MOORE, R.D.**; HUTCHINSON, D.
HSA9.1-014 Throughflow variability in a shallow forest soil on a glaciated hillslope: implications for modelling
09:15 WHITAKER, A.C.; ALILA, Y.; CALVERT, P.;
HSA9.1-015 TOEWS, D.
Hydrological modelling to access the consequences of forest management scenarios on snow accumulation, melt, and peak flows in interior British Columbia
09:30 SOPHOCLEOUS, M.A.; KOELLIKER, J.K.;
HSA9.1-016 GOVINDARAJU, R.S.; BIRDIE, T.;
RAMIREDDYGARI, S.R.; PERKINS, S.P.
Integrated numerical modelling of the Rattlesnake Creek basin in Kansas, USA

09:45 GOMEZ-AMELIA, D.; SCHNABEL, S.;
HSA9.1- **CEBALLOS, A.**; GALLART, F.
017 Hydrological response of a small catchment in semiarid environments (SW, Spain) and model applications
10:00 **VIEUX, B.E.**; CAPPELAERE, B.; PEUGEOT, C.
HSA9.1- Influence of channel losses on spatially distributed
018 rainfall-runoff simulation in a small endoreic catchment in the Sahel region, Niger, Africa
10:15 **BERTHIER, E.**; ANDRIEU, H.; RAIMBAULT, G.;
HSA9.1- CREUTIN, J.D.
020 A physically based approach of urban rainfall-runoff modelling
10:30 BREAK

Chairperson: Moore, R.D.
Editors: White, S.M.; Gallart, F.

Modelling issues

11:00 SEIBERT, J.; BISHOP, K.
HSA9.1- A genetic algorithm for multi-criteria calibration of
021 conceptual rainfall-runoff models
11:15 **VIEUX, B.E.**; LEDIMET, F.; ARMAND, D.
HSA9.1- Inverse problem formualtion for spatially distributed
022 river basin model calibration using the adjoint method
11:30 **MOREDA, F.**; BAUWENS, W.
HSA9.1- A conceptual 10 days water balance model with step
023 wise parameter optimization
11:45 **MOLENAT, J.**; DAVY, P.; GASCUEL-ODOUX,
HSA9.1- C.; DURAND, P.
024 Spectral and cross-spectral analysis of three hydrological systems
12:00 MOUSSA, R.
HSA9.1- On the use of the diffusive wave model to identify
025 geomorphologic transfer function from digital elevation models
12:15 KUO, W.-L.; STEENHUIS, T.S.; MCCULLOCH,
HSA9.1- C.E.; MOHLER, C.L.; WEINSTEIN, D.;
026 DEGLORIA, S.D.; SWANEY, D.; ZOLLWEG, J.A.; FRANKENBERGER, J.A.
Scaling effects on runoff and moisture content in a GIS-based, variable-source-area hydrology model
12:30 MAUSER, W.
HSA9.1- The modelling of the water cycle within a GIS based
027 SVAT-model framework
12:45 DI GIAMMARCO, P.FRANCHINI, M.;
HSA9.1- **LAMBERTI, P.**
028 The construction of the rating curve in river cross sections by using level data and a parameterized formualtion of the De Saint Venant equations
13:00 END OF SESSION

Attend the Poster Sessions

and the

Exhibition

HSB1 Water resources research .1 Water resources of international river basins

Convener: Savenije, H.H.
Co-Convener(s): van der Zaag, P.
Wednesday, 22 April 1998
Lecture Room: MYKONOS
Chairperson: N.N.

09:00 MOSTERT, E.
Perspectives on river basin management (Solicited Paper)
09:30 THAMAE, L.
Legal and institutional framework for the management of shared water resources in the SADC region
09:50 TUMBARE, M.J.
Equitable sharing of the water resources of the Zambezi river basin
10:10 VAN DER ZAAG, P.; **SAVENIJE, H.H.G.**
The management of EU and SADC river basins compared
10:30 AERTS, J.C.J.H.; VAN DEURSEN, W.P.A.; KRIEK, M.; SCHEPEL, M.
STREAM (Spatial Tools for River basins and Environment and Analysis of Management options): "The Ganges, Brahmaputra, Meghna river basin"
10:50 VAN AST, J.A.
Trends to interactive watermanagement: developments in international management of river basins
11:10 VAN DER VEEREN, R.
Least cost emission reductions in transboundary river basins: the case of diffuse emissions of nutrients in the Rhine river basin
11:30 TCHIJOVA, E.
Seasonal fluctuations of evaporation from a water surface
11:50 END OF SUB-SESSION
12:00 Business Meetings

HSB1 Water resources research .2 Influence of environmental and antropogenic change on flood processes (co-sponsored by NH) - Poster Session

Convener: Blöschl, G.
Co-Convener(s): Burlando, P.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - HS

HS105 **ADAR, E.M.**; LARONE, J.B.; HATUKAI, P.
The role of desert floods in spreading pollution along an Alluvial aquifer: the northern Negev desert, Israel
HS106 **ARNAEZ, J.**; GARCIA-RUIZ, J.M.; MARTI-BONO, C.; WHITE, S.M.; MORENO, A.; BORDONABA, A.P.
Forest and farmland abandoned catchments: a comparison of flood processes
HS107 SADYKOV, D.; **LEVCHENKO, I.**
Dynamic model of the non-outletted reservoir (DMROR) and progosis its level of change

HSB1 Water resources research .2 Influence of environmental and antropogenic change on flood processes (co-sponsored by NH)

Convener: Blöschl, G.
Co-Convener(s): Burlando, P.
Friday, 24 April 1998
Lecture Room: GALLIENI 5
Chairperson: Blöschl, G.

14:00 BLÖSCHL, G.
Introduction
14:05 ROSSO, R.
Modelling climate and man-induced effects for flood risk assessments: open problems and research perspectives (Solicited Paper)
14:35 ROALD, L.A.; NJOS, A.
HYDRA - a Norwegian research programme on floods
14:50 BEHR, O.; BLÖSCHL, G.; **PIOCK-ELLENA, U.**
A digital data base of catchment characteristics for assessing anthropogenic effects on flood processes
15:05 **COGNARD-PLANCQ, A.L.**; MARC, V.; TRAVI, Y.; DIDON-LESCOT, J.F.
Hydrology and forest: a modelling approach on the Mont Lozere (France)
15:20 **KATZENMAIER, D.**; UHLENBROOK, S.; LEIBUNDGUT, CH.; BRONSTERT, A.
Land-use changes influencing storm runoff generation and the potential of decentralized flood retention measures to compensate for such changes - a survey
15:35 **ADAR, E.M.**; LARONE, J.B.; HATUKAI, P.
The role of desert floods in spreading pollution along an Alluvial aquifer: the northern Negev desert, Israel (Poster)
15:38 **ARNAEZ, J.**; GARCIA-RUIZ, J.M.; MARTI-BONO, C.; WHITE, S.M.; MORENO, A.; BORDONABA, A.P.
Forest and farmland abandoned catchments: a comparison of flood processes (Poster)
15:41 SADYKOV, D.; **LEVCHENKO, I.**
Dynamic model of the non-outletted reservoir (DMROR) and progosis its level of change (Poster)
15:44 BREAK

Chairperson: Burlando, P.

16:00 **GOTTSCHALK, L.**; SAELTHUN, N.-R.; KRASOVSKAIA, I.
Risk of flooding and probability of extreme floods (Solicited Paper)
16:30 **OSTROWSKI, M.W.**; LEICHTFUSS, A.
Human impacts on the formation of flash floods and measures for their compensation
16:45 BURTON, A.; O'CONNELL, P.E.
Sensitivity analysis of the frequency of flood events to landuse change *
17:00 **ORLANDINI, S.**; DALL'AGATA, L.; BRATH, A.
On the impact of flood-control reservoirs on hydrologic risk
17:15 ADLER, M.-J.; BUTA, C.
Influence of the environmental and antropogenic change on flood processes of the inferior sector of the Danubian River
17:30 PECKHAM, S.D.
Flow routing in large river basins
17:45 Discussion
18:00 END OF SESSION

HSB1 Water resources research .3 Remote sensing and GIS in hydrology - Poster Session

Convener: Baret, F.
Co-Convener(s): Estrela, T.; Stips, A.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - HS

HS108 **ERREA, M.P.**; GONZALEZ, C.; GARCIA-RUIZ, J.M.; WHITE, S.M.
Assessment of soil humidity and sediment sources in small catchments using GIS
HS109 **BOEGH, E.**; SOEGAARD, H.
Estimation of transpiration from sparse vegetation
HS110 **CAMPLING, P.**; GOBIN, A.; EERENS, H.; FEYEN, J.
Landsat TM as a tool for mapping the land cover of a humid tropical catchment
HS111 **FIORUCCI, P.**; MINCIARDI, R.; LA BARBERA, P.; LANZA, L.
On the use of the multisensor data for reconstruction of the rainfall field oat different scales
HS112 RUMYANTSEV, V.; GRIBIN, S.; BALACHEVTSEV, M.
GIS of water objects of Karelian Isthmus (north-west of Russia)

HSB1 Water resources research .3 Remote sensing and GIS in hydrology

Convener: Baret, F.
Co-Convener(s): Estrela, T.; Stips, A.
Friday, 24 April 1998
Lecture Room: GALLIENI 5
Chairperson: Baret, F.

Remote sensing

08:30 **SCHMUGGE, T.**; KUSTAS, W.P.
The use of multi-layer remotely sensed data for estimating surface heat fluxes
08:45 LOBO, A.
Temporal series of AVHRR-NDVI imagery of Iberia; hydrological significate
09:00 ESTRELA, T.; ALVAREZ, J.
Calculation of P.E.T. in Spain using geographical information systems
09:15 RUIZ, J.M.
Distribution hydrological modelling in a large basin using a raster type GIS
09:30 **TROUFLEAU, D.**; SOGAARD, H.
Combining satellite, ground-based and assimilated data for estimating regional land surface evaporation
09:45 HESSLING, M.
Distributed modelling using different routing algorithms and validation against remotely sensed data

10:00 **MACELLONI, G.**; PALOSCIA, S.; PAMPALONI, P.; SIGISMONDI, S.
Estimating hydrological parameters with multifrequency SAR data
10:15 ANDA, A.
Problems at soil borne remote sensing use under Hungarian changeable weather
10:30 BREAK

Chairperson: Estrela, T.

GIS

11:00 BARRETT, E.C.; **BEAUMONT, M.**; TODD, M.C.; BROWN, P.A.; TABERNER, M.J.; LA BARBERA, P.; LANZA, L.G.
A unified rainfall climatology of the Mediterranean obtained by satellite and surface data
11:15 ROTT, H.; BAUMGARTNER, M.; FERGUSON, R.; JOHANSSON, B.; PIRKER, O.; QUEGAN, S.; WRIGHT, G.
The HYDALP project: towards operational remote sensing applications in snow hydrology
11:30 **BRAZIER, R.E.**; ROWAN, J.S.; QUINN, P.
The use of a national GIS database for soil erosion modelling in the U.K. using a minimum information requirement approach
11:45 **WEGEHENKEL, M.**; STEIDL, J.
Results of the GIS based conceptual hydrolocic model ARC-EGMO in comparison with the grid based fully distributed deterministic hydrologic model MIKE-SHE
12:00 **CAMPLING, P.**; GOBIN, A.; DECKERS, J.; FEYEN, J.
Deriving pedo-hydrological characteristics of a humid, tropical catchment (south eastern Nigeria) by soil-landscape modelling
12:15 CHERNOOK, V.I.; MELENTYEV, V.V.; PLUSHYEV, V.A.; VOSTROV, E.A.; SHUBINA, M.A.
Water resources of the Russian Arctic onshores (river mouths and permafrost): experience of X, L, P, VHF SAR-diagnostic
12:30 BELZ, S.; VOGT, T.; BELDJOUDI, L.
Determination of runoff parameters in northern Algeria using remote sensing data and GIS
12:45 END OF SUB-SESSION

HSB1 Water resources research .4 Influence of landuse and moisture feedback on continental rainfall

Convener: Savenije, H.H.
Co-Convener(s): Bronstert, A.; Ulbrich, U.
Wednesday, 22 April 1998
Lecture Room: MYKONOS
Chairperson: Mölders, N.

14:00 XUE, Y.; OKI, T.
Biosphere feedback on rainfall and runoff in tropical North Africa (Solicited Paper)
14:30 ELTAHIR, E.A.B.
The feedback between soil moisture conditions and rainfall processes
14:45 ENTEKHABI, D.
Continental precipitation recycling and variability of large scale water balance with land-atmosphere interaction
15:00 **HECK, P.**; LÜTHI, D.; SCHÄR, C.
The influence of vegetation on moisture feedback mechanisms and summertime rainfall in a regional climate model
15:15 **CLARK, D.B.**; XUE, Y.; HARDING, R.J.; VALDES, P.J.
Impact of land surface degradation on climate in tropical North Africa
15:30 MÖLDERS, N.
Comparison of the rainfall and evapotranspiration predicted for a landscape of 1930, 1986 and different opencast mining succession landscapes
15:45 DE GROEN, M.M.
A calibrated threshold-value of the precipitable water compared to energy conditions in the atmosphere
16:00 TAYLOR, C.M.
Convective scale rainfall presistence in the Sahel
16:15 DE RIDDER, K.
The impact of surface evaporative fraction on the potential for convective precipitation
16:30 RAGETTE, G.
The evaporation of rain and snowfall in the subcloud layer
16:45 END OF SUB-SESSION

HSB2 Water resources engineering and management .1 Water scarcity

Convener: Savenije, H.H.
Co-Convener(s): Bruen, M.
Thursday, 23 April 1998
Lecture Room: GALLIENI 5
Chairperson: N.N.

11:00 APPELGREN, B.; KLOHN, W.
Management of water scarcity: a focus on social and economic options (Solicited Paper)
11:30 ROCHSTRÖM, J.
On-farm green water estimates as a tool for increased food production in water scarce regions
11:45 ROMASCHENKO, M.I.; ZHOVTONOG, O.I.
Methods of optimal irrigation management under the conditions of deficiency of water and power resources in the Ukraine
12:00 TAPIAS, J.; SALGOT, M.; CASAS, A.
Determination of the maximum irrigation efficiency of golf courses in semi-arid Mediterranean climate
12:15 GIJSBERS, P.J.A.
Libya's choices: desalination or the great man-made river project
12:30 BELOUSOVA, A.P.
Risks and hazard assessment of changing groundwater ecological state
12:45 PAPAIOANNOU, G.; MARKOPOULOS, P.; **KERKIDES, P.**
Short drought predictors for agricultural risks
13:00 END OF SUB-SESSION

HSB2 Water resources engineering and management
.2 Sustainable development of watersheds and river processes

Convener: Habersack, H.M.
Co-Convener(s): de Groen, M.
Thursday, 23 April 1998
Lecture Room: GALLIENI 5
Chairperson: N.N.

14:00 HABERSACK, H.
Sustainable and ecologically sound development of watersheds and river processes (Solicited Paper)
14:30 ERGENZINGER, P.
Requirements for the sustainable development of mountain torrents
14:45 FERGUS, T.; BERG, G.
The morphological and hydrological impacts of gravel-mining in the Bovri, Norway
15:00 MAURER, M.
The effects of inaccurate input parameters on sediment transport calculations
15:15 PONCE-ALVAREZ, M.T.
Impact of reservoirs in river sediment transport regime - a case study in Tagus river basin
15:30 KRZYK, M.
Mathematical modelling of suspended load in Ptuj lake
15:45 SAENGER, N.; LENK, M.; TRÄBING, K.
The passage of river- and groundwater through a riffle
16:00 **MONTENEGRO, H.**; HOLFELDER, T.
Assessment of embankment removal effects on groundwater dynamics in an Elbe River floodplain
16:15 DUNBAR, M.J.; ACREMAN, M.; ELLIOTT, C.
River flow objectives: abstract concept or practical tool?
16:30 LECOMTE, V.; LE BISSONNAIS, Y.
Pesticides transfer by runoff and erosion from field to agricultural catchment
16:45 PIEGAY, H.; THEVENET, A.; CITTERIO, A.
Distribution of large woody debris along a mountain river continuum, the Drome river, France
17:00 **KERSEBAUM, K.C.**; EULENSTEIN, F.; SCHINDLER, U.
Simulation of nitrate pollution from agricultural used land in a small river catchment of north-east Germany
17:15 MAKHMUDOV, E.DJ.; SHERFETDINOV, L.Z.
Criteria of technogen transforming of river flow
17:30 END OF SUB-SESSION

Hydrology and Earth System Sciences

the new EGS journal for the publication of original research in hydrology viewed as a separate geoscience

---

HSB2 Water resources engineering and management
.2 Sustainable development of watersheds and river processes - Poster Session

Convener: Habersack, H.M.
Co-Convener(s): de Groen, M.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:30 - 19:00
Poster Area: AGORA 2 - HS

HS113 **HELMS, M.**; LEIBUNDGUT, CH.
Time series analysis of discharges of the Saone river
HS114 AREFJEV, N.; KONONOVA, M.; **SAI. O.**
Sustainable management of a river with a cascade system of hydro-power plants

HSB2 Water resources engineering and management
.3 Groundwater systems and management

Convener: Kholghi, M.K.
Co-Convener(s): Candela, L.
Thursday, 23 April 1998
Lecture Room: GALLIENI 2
Chairperson: N.N.

09:00 **KROM, T.D.**; ROSBJERG, D.
Optimization and decision analysis of remediation design
09:20 **CAPILLA, J.E.**; PAREDES, J.; ANDREU, J.; SAHUQUILLO, A.
Improvement of performance indicators due to conjunctive use of surface and groundwater in complex water resources systems
09:40 **STEIDL, J.**; MERZ, CH.; DANNOWSKI, R.
GIS based hydrogeological data models for groundwater modelling in mesoscale pleistocene water catchment
10:00 ROKHINSON, E.E.
Magnetic treatment of salt and ground water
10:20 END OF SUB-SESSION

HSB2 Water resources engineering and management
.3 Groundwater systems and management - Poster Session

Convener: Kholghi, M.K.
Co-Convener(s): Candela, L.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - HS

HS115 **FERNANDEZ-TURIEL, J.L.**; GALINDO, G.; FERNANDEZ-CIRELLI, A.; ANTICH, N.; HERRERO, A.; LLORENS, J.F.
Development of control and decision systems applied to the management of complex hydrological resources

HS116 **FERNANDEZ-TURIEL, J.L.**; LLORENS, J.F.; ANTICH, N.; ROIG, A.; LOBO, A.
Application of non-conventional hydrochemical parameters determined by ICP-MS to groundwater management of the aquifers of the Llobregat river

HS117 **LOPEZ-VERA, F.**; GOMEZ-ARTOLA, C.; FERNANDEZ-TURIEL, J.L.; ANTICH, N.; MORELL, I.
Groundwater mixtures due to pumping in the detrital tertiary aquifer of Madrid

HS119 KOMATINA, M.; KOMATINA, S.
Karst groundwater management and protection

HSC1 Special hydrological symposia .1 The French National Programme in Hydrology

Convener: Vauclin, M.
Wednesday, 22 April 1998
Lecture Room: HERMES
Chairperson: Ackerer, S.

08:45 VAUCLIN, M.
Brief presentation and goals of the French National Programme in Hydrology

09:00 BEVEN, K.
On uniqueness of place in hydrological modelling (Solicited Paper)

09:30 **AMANI, A.**; GUILLOT, G.; LEBEL, T.; CREUTIN, J.-D.
Rainfall statistics at small time steps in the Sahel: a preliminary investigation into the validation of a desaggregation model

09:45 **CAPPELAERE, B.**; MAIA, A.; PEUGEOT, C.; VIEUX, B.; COLAS, E.
Compared sensitivity analyses of a fully-distributed and of a semi-distributed hydrological model for a Sahelian watershed

10:00 **SAULNIER, G.M.**; DATIN, R.; OBLED, CH.
Dynamic drainage area and spatially variable precipitation inputs within the TOPMODEL framework

10:15 HABETS, F.; ARTINIAN, E.; ETCHEVERS, P.; GOLAZ, C.; LACARRERE, P.; LEBLOIS, E.; LEDOUX, E.; MARTIN, E.; NOILHAN, J.; OTTLE, C.; VIDAL MADJAR, D.
Hydrological study of the Rhone basin

10:30 **ETCHEVERS, P.**; HABETS, F.; MARTIN, E.; NOILHAN, J.; ET AL
Hydrological modelling of Rhone basin

10:45 **THIELEN, J.**; CREUTIN, J.D.
Simulation of convective rainfall over urban area

11:00 **BESSEMOULIN, P.**; BRAUD, I.; CALVET, J.C.; HAVERKAMP, R.; KERGOAT, L.; LAURENT, J.P.; MORDELET, P.; NOILHAN, J.; ROUJEAN, J.L.; THONY, J.L.; TOSCA, C.; VIGNES, D.
MUREX: a long term field programme dedicated to the measurement and modelling of the hydrological balance at a fallow site in south west France

11:15 **MORDELET, P.**; TOSCA, C.; VIGNES, D.; KERGOAT, L.; CALVET, J.-C.
Vegetation dynamics and the water and carbon dioxide fluxes

11:30 BRAUD, I.; **CHANZY, A.**; BARET, F.; CALVET, J.C.; GONZALEZ, E.; KING, C.; PREVOT, L.; OLIOSO, A.; OTTLE, C.; TACONET, O.; THONY, J.L.; WIGNERON, J.P.
Assimilation of remote sensing data in SVAT models: description of the Alpilles experiment and first results

11:45 LUNCH

12:00 Business Meetings

Chairperson: Beven, K.

14:00 **FRANCOIS, C.**; OTTLE, C.; TACONET, O.
Coupling SVAT model with multispectral radiative transfer models into the Canopy. first results with the alpilles experiment

14:15 **VOLTZ, M.**; LENNARTZ, B.; LOUCHART, X.; ANDRIEUX, P.
Transport of herbicides in runoff water in a farmed Mediterranean catchment

14:30 GERMANN, P.
Dissipation of momentum during flow in field soils

14:45 **LAURENT, J.P.**; AUZET, A.V.; CHANZY, A.; PEREIRA DOS SANTOS, L.; SANCHEZ-PEREZ, J.M.
Tests of a new TDR-method to measure soil water content profiles

15:00 AHMADI, A.; **CHERBLANC, F.**; QUINTARD, M.
Upscaling dispersion in heterogeneous media: non-equilibrium models

15:15 STOECKEL, M.E.; POULARD, C.; MOSE, R.; ACKERER, P.
Transport parameter identification: aaplication of the Sentinel Method

15:30 **LABAT, D.**; ABABOU, R.; MANGIN, A.
Study of non linearities in karstic systems using wavelet transform and multiresolution analysis

15:45 **LOUBET, M.**; COUDRAIN-RIBSTEIN, A.; POUYAUD, B.; DUPRE, B.; MARTINEZ, J.
Origin of salty waters from Bolivian Altiplano: contribution of the SR isotopic data and geochemistry

16:00 **COUDRAIN-RIBSTEIN, A.**; PRATX, B.; TALBI, A.; JUSSERAND, C.
Is the evaporation from phreatic aquifers in arid zone independetn of the soil characteristics?

16:15 **MOLENAT, J.**; GRUAU, G.; GASCUEL-ODOUX, C.; DAVY, P.; CURMI, P.; DIA, A.; DURAND, P.; GRIMALDI, C.; MEROT, P.; RIOU, C.
Combined use of hydrological and hydrochemical data to model the role of the water table in nitrate transfer

16:30 **PETELET, E.**; LUCK, J.-M.; BEN OTHMAN, D.; JOSEPH, C.; VASSEUR, G.
Geochemical contribtuion to mesoscale water paths: major, trace elements and Sr isotopes applied to the Peyne watershed (Herault, France)

16:45 OBERLIN, G.; PNRH TEAMS
Renewal and development of the hydrological regime representations: concept, variates, models, maps

17:00 END OF SUB-SESSION

HSC1 Special hydrological symposia .1 The French National Programme in Hydrology - Poster Session

Convener: Vauclin, M.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Wednesday, 17:30 - 19:00
Poster Area: AGORA 2 - HS
Chairperson: Germann, P.F.

HS121 **FOUCHE-ROGUIEZ, S.**; NAJJAR, G.; BRAUD, I.; AMBROISE, B.
Modelling the surface processes in middle mountain conditions: comparison and sensitivity studies

HS122 **GONZALEZ-SOSA, E.**; BRAUD, I.; VAUCLIN, M.; BESSEMOULIN, P.
Modelling the influence of a mulch on the water and energy budget of a fallow land

HS123 DUROT, K.; **OBLED, CH.**; SAULNIER, G.M.; MARTIN, E.
Coupling of a hydrologic physical based model (TOPMODEL) with a snowmelt routine (SAFRAN-CROCUS) for discharges simulation of a French Alpine catchment

HS124 AUZET, A.V.; ANDRIEUX, P.; ANGULO-JARAMILLO, R.; BARIAC, T.; BOULEGUE, J.; BRESSON, L.-M.; DARBOUX, F.; ESTEVES, M.; KIRKBY, M.J.; LE BISSONNAIS, Y.; LECOMTE, V.; LUDWIG, B.; GASCUEL-ODOUX, C.; PLANCHON, O.; POT, V.; RENAUX, B.
Dynamic hydrology of the soil surface

HS125 **ESTEVES, M.**; PLANCHON, O.
Effects of soil microtopography on overland flow and infiltration in cultivated plots

HS126 **ZAMMIT, C.**; BOURAOUI, F.; HAVERKAMP, R.; GONZALEZ-SOUSA, E.; ANGULO JARAMILLO, R.
A physically-based approach for estimating water retention curve shape parameter

HS127 **ORMOND, A.**; ORTOLEVA, P.
The numerical modelling of the instability of infiltration in a rock with heterogeneous texture

HS128 **COMPERE, F.**; POREL, G.; DELAY, F.; RAZACK, M.
Transport and retention of clay particles in fine porous medium: experimental and theoretical approach

HS129 **BEREST, P.**; HULIN, J.P.; RAKOTOMALALA, N.; SALIN, D.
Experimental and numerical study of miscible fluid displacements in porous media with large heterogeneities

HS130 **JELLALI, S.**; COME, J.M.; OTT, C.; RAZAKARISOA, O.; VAN DORPE, F.; ZILLIOX, L.
Large scale experiment on controlled aquifer pollution by trichlorethylene

HS131 **SCHÄFER, G.**; LE THIEZ, P.; QUINTARD, M.; RAZAKARISOA, O.
Numerical simulation of the migration of trichlorethylene in a large scale basin

HS132 **FAILLAT, J.P.**; SOMLETTE, L.
Variability of nitrate in fissure groundwater and constraint factors (geological, redox, hydrodynamic)

HS133 **ROULIER, S.**; ANGULO-JARAMILLO, R.; GAUDET, J.P.; AUZET, A.V.; LADOUCHE, B.; BARBIAC, TH.
Field measurement of solute transport properties of soil using a tension disc infiltrometer and ^{18}O

HS134 **BARIAC, T.**; ROCHE, C.; CAYET, S.; SURUGUE, M.
Isotopic composition pf water from terrestrial plants: implications for water sources and water vapor

HS135 **ROCHE, C.**; BARIAC, T.; BRUNET, Y.; BERBIGIER, P.; RICHARD, P.; BONNEFOND, J.M.; BARDOUX, G.; LADOUCHE, B.; MILLET, A.
Monitoring isotopic exchange within a forest stand: relationships between H2O and CO_2 isotopic signatures

HS136 **CAYET, A.**; BARIAC, T.; RICHARD, P.
Water uptake by plants in different environmental conditions

HS137 **LADOUCHE, B.**; BIRON, PH.; NAJJAR, G.; MILLET, A.; HUON, S.; RICHARD, P.; BARIAC, T.
The contribution of evapotranspiration to the enrichment of ^{18}O and ^{2}H in the water vapor under natural conditions

HS138 **SANCHEZ-PEREZ, J.M.**; BARIAC, T.; LUCOT, E.; AUZET, A.V.
Water movement from soil to root investigated through simultaneous measurement: soil water potential, root distribution and hydrological tracers

HS139 MADE, B.; COUDRAIN-RIBSTEIN, A.; SONDAG, F.; QUINTANILLA, J.
Characterization of waters from Bolivian Altiplano: geochemical modelling approach

HS140 **PHILIPPE, C.**; JOUNIAUX, L.; POZZI, J.-P.
Electrokinetic monitoring of water flow in low consolidated medium

HS141 ZAKRI, T.; **LAURENT, J.P.**
Comparison of mixing-laws models on soils TDR measurements data

HS142 THONY, J.L.; MORAT, P.; **VACHAUD, G.**; LE MOUEL, J.L.
Fields characterization of the relationship between electric field and soil water flux in Vadose zone

HSC1 Special hydrological symposia .2 Dryland degradation in the Mediterranean: threat, processes and mitigation

Convener: Bathurst, J.C.
Co-Convener(s): Quaranta, G.
Thursday, 23 April 1998
Lecture Room: MYKONOS
Chairperson: Bathurst, J.C.

09:00 **SOLARI, P.**; SICCARDI, F.
Fires, soil degradation and erosion in small Mediterranean river basins

09:15 **VALERO-GARCES, B.**; DELGADO-HUERTAS, A.; NAVAS, A.; MACHIN, J.; KELTS, K.
Late Holocene climate change and human impact in the semiarid Ebro basin reconstructed from Lacustrine records

09:30 **MARTINEZ-MENA, M.**; CASTILLO, V.; ALBALADEJO, J.
Hydrologic and sediment responses to natural rainfall in a degraded semiarid area of southeast Spain

09:45 **RIES, J.B.**; HIRT, U.
Soil surface sealing on abandoned fields in the semi-arid Mediterranean - a process oriented study on land degradation using thin sections up to large-scale aerial photographs

10:00 CRESCIMANNO, G.; PROVENZANO, G.
Hydrological processes affecting land degradation in the Mediterranean environment *

10:15 DIAZ, E.; IBANEZ, M.A.; CASTILLO, V.; ALBALADEJO, J.
Soil rehabilitation with organic amendment: effect on soil structure and moisture content (Poster)

10:20 BREAK

Chairperson: Quaranta, G.

11:00 KIRKBY, M.J.; MCMAHON, M.L.
A dead-zone model for flow over rough hillslopes

11:15 **GILABERT, M.A.**; GARCIA-HARO, F.J.; YOUNIS, M.T.; MELIA, J.
Mixture modelling methods to assess vegetation multitemporal changes in Guadalentin basin (Medalus-III pilot area, SE Spain) (Poster)

11:20 **YOUNIS, M.T.**; GILABERT, M.A.; GARCIA-HARO, F.J.; MELIA, J.
Vegetation multitemporal variation using NDVI from Landsat-TM images in a Medalus-III pilot area (Guadalentin Basin, SE Spain) (Poster)

11:25 MIZARA, A.
The use of mixture models in land degradation parameter estimation for surface modelling (Poster)

11:30 **QUARANTA, G.**; CASIERI, A.; MAROTTA, G.
Agro-environmental measures and soil conservation: results in some agricultural Italian areas

11:45 **FERRARA, A.**; QUARANTA, G.
Evaluation, at municipality level, of the effects of different economical issues on the environmental sensitivity of Mediterranean areas by integrated use of ecological and economical data: a methodological proposal

12:00 **BATHURST, J.C.**; LENG, X.; MULCAHY, C.; SHEFFIELD, J.
Decision support system for the Agri basin, Italy

12:15 Concluding Remarks

12:30 END OF SUB-SESSION

£ 50,- only

for a personal subscription to
Hydrology and Earth System Sciences

HSC1 Special hydrological symposia .2 Dryland degradation in the Mediterranean: threat, processes and mitigation - Poster Session

Convener: Bathurst, J.C.
Co-Convener(s): Quaranta, G.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - HS

HS143 DIAZ, E.; IBANEZ, M.A.; CASTILLO, V.; ALBALADEJO, J.
Soil rehabilitation with organic amendment: effect on soil structure and moisture content

HS144 **GILABERT, M.A.**; GARCIA-HARO, F.J.; YOUNIS, M.T.; MELIA, J.
Mixture modelling methods to assess vegetation multitemporal changes in Guadalentin basin (Medalus-III pilot area, SE Spain)

HS145 **YOUNIS, M.T.**; GILABERT, M.A.; GARCIA-HARO, F.J.; MELIA, J.
Vegetation multitemporal variation using NDVI from Landsat-TM images in a Medalus-III pilot area (Guadalentin Basin, SE Spain)

HS146 MIZARA, A.
The use of mixture models in land degradation parameter estimation for surface modelling

HSC1 Special hydrological symposia .3 Fire: impact on hydrology, sediment yield and ecosystems of Mediterranean lands

Convener: Moreno, J.M.
Co-Convener(s): Rambal, S.
Thursday, 23 April 1998
Lecture Room: MYKONOS
Chairpersons: Moreno, J.M.; Rambal, S.

14:00 **PEREZ, B.**; MORENO, J.M.
Spatial patterns of fuel and heat liberation during fire in a Cytisus shrubland in Sierra de Gredos, Spain

14:15 **CRUZ, A.**; ZUAZUA, E.; LUNA, B.; FERNANDEZ, F.; MORENO, J.M.
Effect of seasonality on fire characteristics and postfire plant dynamics in a Mediterranean shrubland in central Spain

14:30 **VIEDMA, O.**; MELIA, J.
Effects of topographic constraints on regeneration processes after fire

14:45 **VINE, P.**; PUECH, C.; GRESILLON, J.-M.
Mapping vegetation regrowth by remote sensing to interpret the hydrological impact of fire

15:00 **VIEDMA, O.**; FERRAN,A.; DUGUY, B.; VALLEJO, R.; GONZALEZ, J.; MELIA, J.
Analysis of spectral-biophysical relationships in garrigue ecosystems

15:15 **LLOVET, J.**; BAUTISTA, S.; GIOVANARDI, F.; VALLEJO, V.R.
Sediment production in burned catchments of eastern Spain

15:30 **GOMEZ-PLAZA, A.**; CASTILLO, V.M.; ALBALADEJO, J.
The effects of fire on hydrological response on smiarid Mediterranean small catchments

15:45 LAVABRE, J.; **ARNAUD, P.**; FOLTON, N.; MICHEL, C.
Hydrological response of a little Mediterranean basin flows after fire
16:00 **MOUILLOT, F.**; RAMBAL, S.; RATTE, J.-P.; LAVORAL, S.
A generic process-based simulationmodel for fire-prone Mediterranean landscapes
16:15 Concluding Remarks
16:30 END OF SUB-SESSION

HSC1 Special hydrological symposia .4 Sources and transfer of water and sediment in Mediterranean river basins - Poster Session

Convener: Sala, M.
Co-Convener(s): Inbar, M.
Display Time: Monday, 09:00 - Friday, 12:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 2 - HS
Co-sponsored by: IGU Commission on Land Degradation and Desertification

HS147 MUALEM, Y., ASSOULINE, S.
Variability of soil properties and its infiltration effect in scaling soil *
HS148 INBAR, M.
Recent man-made changes in the flow regime of the Mediterranean watersheds of Israel
HS149 GAILLOT, S.; **PIEGAY, H.**
Impact of gravel-mining and land-use changes on stream channel and coastal sediment supply. Example of the Calvi Bay in Corsica (France)
HS150 BATALLA, R.J.; SALA, M.
Changes on sediment and dissolved load after wildland fire in a Mediterranean river basin
HS151 LASANTA, T.; **GARCIA-RUIZ, J.M.**
Land-uses as different sources of solutes in Mediterranean mountain areas: an example from the central Spanish Pyrenees
HS152 ORTIGOSA, L.; **GARCIA-RUIZ, J.M.**
Soil erosion and rehabilitation after reforestation

HSC1 Special hydrological symposia .4 Sources and transfer of water and sediment in Mediterranean river basins

Convener: Sala, M.
Co-Convener(s): Inbar, M.
Friday, 24 April 1998
Lecture Room: MYKONOS
Co-sponsored by: IGU Commission on Land Degradation and Desertification
Chairperson: Batalla, R.J.

09:00 **SALLES, C.**; POESEN, J.
Drop size distribution from simulated rain masured with an optical spectro pluviometer
09:20 **MARC, V.**; DIDON-LESCOT, J.F.; COUREN, M.; CHABANNA, J.
Tracing investigation of the hydrological processes in a small Mediterranean forested catchment during an autumn recharge
09:40 KONDOLF, M.G.
Changing sediment budgets in Mediterranean-climate rivers of California, USA
10:00 BARTOLINI, C.
Present versus long term sediment yield to the Adriatic Sea
10:20 BREAK

Chairperson: N.N.

11:00 **LARONNE, J.B.**; SEYDELL, I.; ROZIN, U.
Quantifying the effect of historic land use change on sediment yield in the Ruhama basin, NW Negev, Israel
11:20 BATALLA, R.J.; SALA, M.
Sediment transfer during extreme floods: an example from the Aras torrent, Spain
11:40 **ANDRIEUX, P.**; LOUCHART, X.; VOLTZ, M.
Effect of agricultural practices on runoff and erosion in vineyard fields in a Mediterranean climate
12:00 **FITZJOHN, C.**; TERNAN, J.L.; PEREZ-GONZALEZ, A.; WILLIAMS, A.G.
Temporal and spatial continuity of hydrological pathways within a semi-arid gully catchment. The role of soil moisture variability
12:20 Concluding Remarks
12:40 END OF SUB-SESSION

HSC1 Special hydrological symposia .5 Catchment management in the Mediterranean for efficient water use

Convener: Estrela, T.
Co-Convener(s): Jamieson, D.
Tuesday, 21 April 1998
Lecture Room: GALLIENI 3
Chairperson: Estrela, T.

08:30 **LLASAT, M.-C.**; SANCHEZ-DIEZMA, R.; SEMPERE TORRES, D.; VIDE, J.P.M.
Analysis of the rainfall variability based on the EPA and radar data and the runnof effect in a catchment area
08:45 VAN WESEMAEL, B.; POESEN, J.; MULLIGAN, M.
Hydrological changes caused by expansion of almond mono-cultures in the uplands of south east Spain
09:00 **GARCIA-RUIZ, J.M.**; LASANTA, T.
Improving water resources by means of land management: experiments in mountain areas
09:15 SAHUQUILLO, A.; ANDREU, J.; CAPILLA, J.
Advantages and possibilities for alternative conjunctive use as used in some Spanish basins
09:30 ACREMAN, M.; DUNBAR, M.; GUSTARD, A.
Guidelines for the sustainable management of groundwater fed catchments
09:45 MENENDEZ, M.
An assessment of late flash floods events in Spain
10:00 KRINNER, W.; LALLANA, C.; RODRIGUEZ, J.; ESTRELA, T.
Sustainable water use in Europe
10:15 ESTRELA, T.
Concluding remarks
10:30 END OF SUB-SESSION

Oceans and Atmosphere

OA1 The thermohaline circulation I

Convener: Colin de Verdiere, A.
Co-Convener(s): Schott, F.
Tuesday, 21 April 1998
Lecture Room: CALLIOPE
Chairperson: Colin de Verdiere, A

Mid-latitude circulations

11:00 **SCHMITT, R.W.**; TOOLE, J.M.; POLZIN, K.L.; LEDWELL, J.R.
Large-scale patterns of turbulent vertical mixing in the Brazil basin: implications for the Abyssal circulation (Solicited Paper)
11:30 **WEATHERLY, G.**; KIM, Y.Y., KONTAR, E.
The North Atlantic deep water Deep Western Boundary Current in the mid-Brazil basin inferred from moored current meter observations
11:45 **BUTZIN, M.**; SÜLTENFUSS, J.; ROETHER, W.
Tracer studies inthe subtropical gyre of the South Atlantic
12:00 OLLITRAULT, M.
The AAIW general circulation in the Brazil basin and equatorial Atlantic
12:15 PUTZKA, A.; ROETHER, W.; **ROSE, H.**
Tracer studies in the South Atlantic Antarctic intermediate water
12:30 **MCCARTNEY, M.S.**; DONOHUE, K.A.
Mid-basin flow in the subpolar North Atlantic
12:45 **BOWER, A.S.**; HUNT, H.D.
The Gulf Stream - deep western boundary current cross-over: results from float observations
13:00 LUNCH

Chairperson: Schott, F.

Equatorial circulations

14:00 **MERCIER, H.**; LUX, M.; ARHAN, M.
Interhemispheric exchanges of mass in the Atlantic Ocean (Solicited Paper)
14:30 **KARSTENSEN, J.**; DENGLER, M.; QUADFASEL, D.
The formation of the Indian equatorial water
14:45 **ANDRIE, C.**; BOURLES, B.; GOURIOU, Y.; OUDOT, C.; TERNON, J.F.
Changes of deep circulation in the western equatorial Atlantic inferred from tracer and current measurements (1993-1996)

Regional studies

15:00 **AMBAR, I.**; DIAST, J.; SERRA, N.; GIBBS, M.; DIAZ DEL RIO, G.
Observations of the Mediterranean undercurrent along the continental slope off Portugal
15:15 **JOHANNESSEN, T.**; JANSEN, E.; ANDERSON, L.; WATSON, A.; FALCK, E.; HANSEN, M.; SKJELVAN, I.; MESSIAS, M.; ESOP2 SCIENTIFIC TEAM
The Greenland Sea experiment
15:30 **JOHNS, W.**; MURRAY, S.; SOFIANOS, S.
Atmospherically-forced exchange through the strait of Bab El Mandeb
15:45 **MURRAY, S.P.**; JOHNS, W.
ADCP-based observations of the seasonal cycle of transport through the Bab El Mandap Strait, 1995-1997
16:00 END OF PART I

OA1 The thermohaline circulation II

Convener: Colin de Verdiere, A.
Co-Convener(s): Schott, F.
Wednesday, 22 April 1998
Lecture Room: CALLIOPE
Chairperson: Schott, F.

Interdecadal variability

09:00 MCCARTNEY, M.S.
The North Atlantic atmosphere - ocean oscillation: observations of the ocean's participation in a slowly varying climate (Solicited Paper)
09:30 KEEN, A.B.
The reponse of the thermohaline circulation in the Hadley Centre coupled model to increasing levels of atmospheric CO_2
09:45 LOHMANN, G.; VOSS, R.; MIKOLAJEWICZ, U.
The freshwater forcing of the thermohaline circulation: analysis of a coupled GCM
10:00 **SCHMITTNER, A.**; STOCKER, T.F.
The stability of the thermohaline circulation in global warming experiments
10:15 **HUCK, T.**; VALLIS, G.K.; COLIN DE VERDIERE, A.
Internal decadal modes of the thermohaline circulation: robustness to high resolution, realistic forcing and topography
10:30 SOKOV, A.V.; DOBROLIUBOV, S.A.; TERESCHENKOV, V.P.
Interdecadal variability of the North Atlantic thermohaline structure and circulation: comparison of Russian WOCE-97 and the historical data
10:45 **ZAVIALOV, P.**; WAINER, I.; ABSY, J.
"Global change" at the Brazil-Malvinas confluence: low frequency variability revealed from historical data

General circulation modelling

11:00 BÖNING, C.
Structure and variability of meridional overturning in the Atlantic Ocean: model perspectives (Solicited Paper)
11:30 VALLIS, G.K.
Effects of wind and geometrey on the thermohaline circulation of an ocean model
11:45 LUNCH
12:00 Business Meetings

Chairperson: Colin de Verdiere, A

14:00 RAHMSTORF, S.
Influence of Mediterranean outflow on the Atlantic thermohaline circulation

14:15 **FIEG, K.**; GERDES, R.
The Atlantic circulation: a sensitivity study using different freshwater fluxes

14:30 **WEIJER, W.**; DE RUIJTER, W.P.M.; VAN LEEUWEN, P.J.; DIJKSTRA, H.A.
The impact of interbasin exchange on the Atlantic overturning circulation

14:45 **HERRMANN, P.**; JIA, Y.; REYNAUD, T.
Formation of North Atlantic deep water in the subpolar gyre - a model intercomparison study

15:00 **NOF, D.**; VAN GORDER, S.
The separation formula and its application to the upper warm layer in the Atlantic Ocean

15:15 **SARKISYAN, A.S.**; IVANOV, YU.A.; LEBEDEV, K.V.
The world ocean thermohaline circulation calculated by new adjustment method

15:30 BEISMANN, J.-O.
On the topographic control of the Atlantic Deep Western Boundary Current

15:45 **VAN DER SCHRIER, G.**; MAAS, L.R.M.
Bifurcation analysis of the 2-D thermohaline circulation

16:00 **ZALESNY, V.B.**; KAZANTSEV, CH.
Mathematical modelling of the world ocean thermohaline circulation: solvability, algorithms, results

16:15 **HIRSCHI, J.**; SANDER, J.; STOCKER, T.F.
Intermittent convection and its consequences on the thermohaline circulation in GCM's

16:30 END OF SESSION

OA1 The thermohaline circulation - Poster Session

Convener: Colin de Verdiere, A.
Co-Convener(s): Schott, F.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: LES MUSES

OA001 GARZOLI, S.L.; **RICHARDSON, P.**; DUNCOMBE RAE, C.; FRATANTONI, D.; GONI, G.
Benguela current experiment (Poster + Video)

OA002 RAMIREZ, J.; SANGRA, P.
Preliminary Canary current transport measurements from undersea telephone cable

OA003 WOELK, S.; ESSELBORN, S.; **MEINCKE, J.**
An inverse box model of the northern North Atlantic

OA004 **BOCK, J.H.**; BOSCH, W.
The 1996 sea surface height anomaly of the North Atlantic subpolar gyre

OA005 **BERSCH, M.**; MEINCKE, J.; SY, A.; ESSELBORN, S.; WOELK, S.
Interannual thermohaline changes at the eastern margin of the North Atlantic subpolar gyre 1991-1996

OA006 ARNOLD, M.; SCHILLER, J.; BAYER, R.; FLEISCHMANN, U.; **PUTZKA, A.**; SY, A.
Transient tracer observations in the North Atlantic

OA007 **SY, A.**; RHEIN, M.
Spreading of the "1988 Labrador Sea Water Cascade" across the North Atlantic ocean

OA008 **STOLLEY, M.**; SY, A.
Multiyear variability of the upper ocean thermal structure of the North Atlantic current regime

OA009 **KOLTERMANN, K.P.**; STELTER, G.
About the seasonality of the LSW arrival west of the Mid-Atlantic-Ridge at 47°N

OA010 **LORBACHER, K.**; KOLTERMANN, K.P.
The 48°N atlantic section: changes in water masses and heat transports during WOCE

OA011 **KOLTERMANN, K.P.**; SOKOV, A.V.; TERECHTCHENKOV, V.P.; DOBROLIUBOV, S.A.; LORBACHER, K.; SY, A.
Decadal changes in the thermohaline circulation of the North Atlantic

OA012 SEVEROV, D.N.; SEVEROVA, V.A.; BLANCO, M.M.; NAGY, G.J.
Identification, characteristics and dynamics of southwestern Atlantic fronts

OA013 **HOGG, N.G.**; MORRIS, M.Y.; OWENS, W.B.
Direct measurement of the deep circulation within the Brazil basin

OA014 **REYNAUD, T.**; LEGRAND, P.; MERCIER, H.; BARNIER, B.
A new analysis of hydrgraphic data in the Atlantic and its application to an inverse modelling study

OA015 **ZAVIALOV, P.**; MÖLLER JR, O.
Seasonal circulation and asociated advective fluxes of heat off southern Brazil and Uruguay: modelling and in situ data

OA016 **FLEISCHMANN, U.**; PUTZKA, A.; BAYER, R.; SY, A.
Multi tracer analysis

OA017 **SIMONSEN, K.**; DRANGE, H.
Effects of various boundary conditions on the thermohaline circulation and sea ice cover in an isopycnal model for the North Atlantic and the Arctic ocean

OA018 JIMENEZ, J.J.; CABOS, W.; ORTIZ BEVIA, M.J.
Decadal and interdecadal variability simulated with a regional model

OA019 **VAN DER SCHRIER, G.**; MAAS, L.R.M.
Bifurcation analysis of the 3-D thermohaline circulation

OA020 **KRÖGER, J.**; BÖNING, C.W.
Pathways of interhemispheric exchange in the equatorial Atlantic: Lagrangian analysis of high resolution models

OA021 DE CUEVAS, B.A.
Global flux estimates and other results from the OCCAM global ocean model

OA022 **FIEG, K.**; DÖSCHER, R.; GERDES, R.
ATOM: model concept and first results

OA023 BÖNING, C.; DIETERICH, C.; JIA, Y.; BARNIER, B.
Seasonal variability of deep currents in the equatorial Atlantic: results from the DYNAMO project

OA024 **BERANGER, K.**; DE MIRANDA, A.P.; BARNIER, B.
The thermohaline circulation in the south Atlantic: estimating the contribution of the major water masses

OA025 **KNOCHEL, H.**; BARNIER, B.
Simulation of the variability of the meridional overturning cell in the north Atlantic Ocean using a sigma coordinate model

OA026 COWARD, A.C.
The Mediterranean outflow as described by the OCCAM global ocean model

OA027 MARRERO-DOAZ, A.; GORDO, C.; PELEGRO, J.L.; ANTORANZ, A.; RATSIMANDRESY, A.; SANGRA, P.; RAMOREZ, J.J.; CORTHETAS, J.M.; GARCOA-WEIL, L.; PACHECO, M.; HERNANDEZ-GUERRA, A.; RODRIGUEZ-SANTANA, A.
Circulation patterns in the Cape Ghir filament area during October 1997

OA028 RODRIGUEZ-SANTANA, A.; MARRERO-DOAZ, A.; PELEGRO, J.L.
Geostrophic transport as inferred from XBT data through analytic T-S diagrams

OA029 WALZ, V.; HILDEBRANDT, H.; CHRISTL, M.; BAYER, R.
SF_6 as a transient tracer in oceanography

OA2 Processes in regions of oceanic time series stations

Convener: Müller, T.J.
Co-Convener(s): Lukas, R.
Thursday, 23 April 1998
Lecture Room: CALLIOPE
Chairperson: Siedler, G.

08:30 **BATES, N.R.**; JOHNSON, R.J.; CARLSON, C.A.; KNAP. A.H.; MICHAELS, A.F.; STEINBERG, D.K.
Interannual ocean variability at the U.S. JGOFS Bermuda Atlantic time-series study (BATS) and Hydrostation S site (Solicited Paper)

08:55 JOYCE, T.M.
Decadal variability of subtropical mode water, atmospheric forcing and feedback

09:10 **ANTONOV, J.I.**; LEVITUS, S.
Ocean weather stations time series and climatic changes

09:25 **LUKAS, R.**; SANTIAGO-MANDUJANO, F.
Long-term hydrographic variations observed in the Hawaii ocean time-series (Solicited Paper)

09:50 **JEANDEL, C.**; RUIZ-PINO, D.; FIALA, M.
Present status and future of JGOFS-KERFIX time series station (50°40S - 69°25E)

10:05 **RUIZ-PINO, D.**; JEANDEL, C.C.; POISSON, A.
The ENSO signal and the Antarctic circumpolar wave evidenced by KERFIX times series data

10:20 LOUANCHI, F.; **RUIZ-PINO, D.**; BRUNET, C.; SCHAUER, B.; POISSON, A.; JEANDEL, C.
An overview of oceanic CO_2 variability at JGOFS-KERFIX time series station (50°40S - 69°25E)

10:35 **MIQUEL, J.C.**; CARROLL, M.; JEANDEL, C.
Seasonal trend in particulate carbon flux at the time-series site Kerfix in the southern ocean

10:50 BREAK

Chairperson: Joyce, T.M.

11:10 **SIEDLER, G.**; MÜLLER, T.J.
The 17-year time series from mooring Kiel 276 in the eastern North Atlantic (Solicited Paper)

11:35 **NEUER, S.**; DAVENPORT, B.; RATMEYER, V.; FISCHER, G.; WEFER, G.; RUEDA, M.-J.; LLINAS, O.
Particle flux measurements at ESTOC

11:50 **REPPIN, J.**; KNOLL, M.
Watermasses and currents in the area of the "ESTOC" time series station

12:05 MERLIVAT, L.
High frequency variability of PCO_2 and CO_2 air-sea fluxes at two JGOFS stations: DYFAMED (western Mediterranean Sea) and BATS (subtropical North Atlantic gyre)

12:20 **MEMERY, L.**; LEVY, M.; MERLIVAT, L.
Seasonal variations and high frequency events of the CO_2 partial pressure at the ocean surface: a numerical approach at the DYFAMED station (NW Mediterranean Sea)

12:35 SMITH, N.; **LUKAS, R.**; HAUGAN, P.
A review of ocean climate time series (Solicited Paper)

13:00 MÜLLER, T.J.; LUKAS, R.
Concluding remarks

13:10 END OF SESSION

OA2 Processes in regions of oceanic time series stations - Poster Session

Convener: Müller, T.J.
Co-Convener(s): Lukas, R.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: LES MUSES

OA030 **NILSEN, J.E.O.**; OSTERHUS, S.
Trends and long time variability of ocean proerties at ocean weather station M in the Norewegian Sea

OA031 LLINAS, O.; RODRIGUEZ DE LEON, A.; SIEDLER, G.; WEFER, G.
European station for time-series in the ocean Canary Islands (1994-1997)

OA032 RUEDA, M.J.; SANTANA, R.; PEREZ-MARRERO, J.; CIANCA, A.; VILLAGARCIA, M.G.; GODOY, J.; ESCANEZ, J.; LLINAS, O.
Variability of the nutrients concentration at ESTOC (1994-1997)

OA033 **ARRAES-MESCOFF, R.**; TABOADA, J.J.; RUIZ-PINO, D.; ATHIAS, V.; ROY-BARMAN, M.; MIQUEL, J.C.; JEANDEL, C.
Geochemistry and modelling of sediment trap time series from the Mediterranean Sea

---

Attend the Poster Session

OA3 The North Atlantic Oscillation: decadal variability in ocean and atmosphere I

Convener: Hense, A.
Co-Convener(s): Rahmstorf, S.; Reverdin, G.
Thursday, 23 April 1998
Lecture Room: CALLIOPE
Chairperson: Reverdin, G.

14:00 **CURRY, R.**; MCCARTNEY, M.S.
Interdecadal transport changes along the North Atlantic subpolar/subtropical boundary

14:15 **PAETH, H.**; HENSE, A.
The North Atlantic oscillation in analysis and model data sets

14:30 **GULEV, S.**; JUNG, T.; RUPRECHT, E.
Changes in the intensity of the atmospheric synoptic variability associated with NAO

14:45 SIRVEN, J.
About the thermocline ventilation: spin-up and spin-down (Poster)

14:50 **FRIEDERICHS, P.**; HENSE, A.
The NAO in a long simulation with a coupled AO-GCM and its interaction with North Atlantic SST

15:05 **VISBECK, M.**; CULLEN, H.; NAIK, N.
Response of North Atlantic ocean model to NAO-like forcing

15:20 **PERLWITZ, J.**; GRAF, H.-F.
The influence of the stratospheric circulation on the time structure of the North-Atlantic-Oscillation (Poster)

15:25 **CORTE-REAL, J.A.M.**; PINTO, J.G.; DIEGUES, J.P.
Relationship between the North Atlantic oscillation and the interannual variability of Atlantic-European climate

15:40 **SENNECHAEL, N.**; FRANKIGNOUL, C.; KESTENARE, E.
Wind driven variability of the North Atlantic meridional overturning cell in the ECHAM1/LSG coupled ocean atmosphere model

15:55 VIGNUDELLI, S.; ASTRALDI, M.; **GASPARINI, G.P.**; LAZZONI, E.; SCHIANO, M.E.
Changes in the NW Mediterranean Sea circulation and their possible connection to the North Atlantic Oscillation

16:10 PETERS, D.
Decadal change of the large-scale atmospheric circulation over the North Atlantic European region in January of the 80's (Poster)

16:15 MAECHEL, H.; KAPALA, A.
Variability of the North Atlantic Oscillation since 1881 (Poster)

16:20 **TERESCHENKOV, V.P.**; ARKHIPKIN, A.V.
Long-term chagnes of the Mediterranean waters in the north east Atlantic and associated changes of the thermohaline circulation (Poster)

16:25 LOEWE, P.
Statistical associations between the NAO, the solar cycle, and the western Baltic Sea season since 1879 (Poster)

16:30 END OF PART I

OA3 The North Atlantic Oscillation: decadal variability in ocean and atmosphere - Poster Session

Convener: Hense, A.
Co-Convener(s): Rahmstorf, S.; Reverdin, G.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: LES MUSES

OA143 SIRVEN, J.
About the thermocline ventilation: spin-up and spin-down

OA144 **PERLWITZ, J.**; GRAF, H.-F.
The influence of the stratospheric circulation on the time structure of the North-Atlantic-Oscillation

OA145 PETERS, D.
Decadal change of the large-scale atmospheric circulation over the North Atlantic European region in January of the 80's

OA146 MAECHEL, H.; KAPALA, A.
Variability of the North Atlantic Oscillation since 1881

OA147 **TERESCHENKOV, V.P.**; ARKHIPKIN, A.V.
Long-term chagnes of the Mediterranean waters in the north east Atlantic and associated changes of the thermohaline circulation

OA148 LOEWE, P.
Statistical associations between the NAO, the solar cycle, and the western Baltic Sea season since 1879

OA149 **JUNG, T.**; RUPRECHT, E.; RIEPE, M.; GULEV, S.
On the non-stationarity of the North Atlantic oscillation

OA150 DJENIDI, S.; KOSTIANOY, A.G.; SHEREMET, N.A.; EMLOUSSAOUI, A.
Thermal variability of the NE Atlantic Ocean

OA151 **CZAJA, A.**; FRANKIGNOUL, C.
Decadal buoyancy forcing in a simple model of the subtropical gyre

OA152 GIMENO, L.; **RUA, A.**; CAMPOS, J.F.; NOREGOL, M.
Fingerprints of the North Atlantic oscillation in the climate of Galicia (Spain)

OA153 GIMENO, L.; **RUA, A.**; MOURE, J.C.; PEREZ, A.
Climate variability in the North Atlantic Ocean using non-codified data

OA154 DAMM, P.E.
Long-term transport oscillations on the northwest European Shelf calculated from a 39-years numerical ciruculation model run

OA155 DONAHUE, K.A.; MCCARTNEY, M.S.; CURRY, A.G.; MAURITZEN, C.
Did the Denmark Strait overflow intensify in 1996-97?

OA156 MCCARTNEY, M.S.
An oceanic memory of winter conditions: does it feedback to determine the winter NAO state?

OA3 The North Atlantic Oscillation: decadal variability in ocean and atmosphere II

Convener: Hense, A.
Co-Convener(s): Rahmstorf, S.; Reverdin, G.
Friday, 24 April 1998
Lecture Room: CALLIOPE
Chairperson: Rahmstorf, S.

08:30 SELTEN, F.; HAARSMA, R.J.; **OPSTEEGH, J.D.**
On the mechanism of North Atlantic decadal variability (Solicited Paper)
09:00 **KRAHMANN, G.**; VISBECK, M.
Advection of temperature and heatconent anomalies in the North Atlantic
09:15 **TERRAY, L.**; BARTHELET, P.
North Atlantic decadal variability in a 130-year simulation of the current climate with a global coupled GCM
09:30 **FESER, F.**; GRAF, H.-F.; PERLWITZ, J.
Multidecadal variability of the coupled tropospheric and stratospheric circulation and its connection to the North Atlantic Circulation
09:45 **KLINGSPOHN, M.**; METZ, W.
On the influence of singular modes on the origin of the interdecadal atmospheric variability
10:00 **JUNG, T.**; GULEV, S.
Timescales of decadal SST-variability in the North Atlantic Ocean
10:15 **JUNG, T.**; RUPRECHT, E.; RIEPE, M.; GULEV, S.
On the non-stationarity of the North Atlantic oscillation (Poster)
10:20 DJENIDI, S.; KOSTIANOY, A.G.; SHEREMET, N.A.; EMLOUSSAOUI, A.
Thermal variability of the NE Atlantic Ocean (Poster)
10:25 BREAK

Chairperson: Opsteegh, J.D.

10:45 **CHRISTOPH, M.**; ULBRICH, U.
Low-frequency NAO fluctuations in the ECHAM4/OPYC3 coupled AOGCM
11:00 **SCHMIDT, T.**; FRICH, P.; HANSEN, C.
Variations of sea ice extent in the northern Atlantic on decadal time scale and connection with atmospheric circulation
11:15 GREY, S.; **HAINES, K.**; MYERS, P.G.
Changes in the upper N. Atlantic hydrography and transports, 1950-1994
11:30 **WIDMANN, M.**; BRETHERTON, C.S.; SCHÄR, C.
Do changes in the NAO explain trends in Swiss wintertime precipitation?
11:45 HAKKINEN, S.; MO, K.C.
Decadal air-sea interaction in the North Atlantic
12:00 SÜNDERMANN, J.
Decadal variability of the Northwest European Shelf
12:15 **BLINDHEIM, J.**; BOROVKOV, V.; HANSEN, B.; MALMBERG, S.AA.; TURRELL, W.R.; OSTERHUS, S.
Effects of the NAO on the structure and distribution of water masses in the Nordic Seas
12:30 **BRESCH, D.N.**; FEHLMANN, R.; DAVIES, H.C.
Simultations of North Atlantic storm track variability
12:45 **CZAJA, A.**; FRANKIGNOUL, C.
Decadal buoyancy forcing in a simple model of the subtropical gyre (Poster)
12:50 GIMENO, L.; **RUA, A.**; CAMPOS, J.F.; NOREGOL, M.
Fingerprints of the North Atlantic oscillation in the climate of Galicia (Spain) (Poster)
12:55 GIMENO, L.; **RUA, A.**; MOURE, J.C.; PEREZ, A.
Climate variability in the North Atlantic Ocean using non-codified data (Poster)
13:00 LUNCH

Chairperson: Sennéchael, N.

14:00 **APPENZELLER, C.**; STOCKER, T.F.
The north Atlantic oscillation and its imprint on precipitation and ice accumulation in Greenland (Solicited Paper)
14:30 **VENZKE, S.**; ALLEN, M.R.; SUTTON, R.T.; ROWELL, D.P.; BROWN, S.J.; FOLLAND, C.K.
Detecting potential atmospheric feedbacks of decadal North Atlantic climate variability in an ensemble of multi-decadal AGCM simulations
14:45 **LOPEZ, P.**; SCHMITH, T.; KAAS, E.
Sensitivity of the northern hemisphere atmospheric circulation to North Atlantic SSTs in the ARPEGE AGCM
15:00 DAMM, P.E.
Long-term transport oscillations on the northwest European Shelf calculated from a 39-years numerical ciruculation model run (Poster)
15:05 DONAHUE, K.A.; MCCARTNEY, M.S.; CURRY, A.G.; MAURITZEN, C.
Did the Denmark Strait overflow intensify in 1996-97? (Poster)
15:10 MCCARTNEY, M.S.
An oceanic memory of winter conditions: does it feedback to determine the winter NAO state? (Poster)
15:15 PICKART, R.S.
Cloupled variability in the slopewater inshore of the Gulf Stream
15:30 **REVERDIN, G.**; VERBRUGGE, N.
Upper ocean variability related to NAO in the North Atlantic subarctic gyre in recent years
15:45 END OF SESSION

OA4 Circulation variability at mesoscale I

Convener: Millot, C.
Co-Convener(s): Treguier, A.M.
Thursday, 23 April 1998
Lecture Room: URANIE
Chairperson: Koekkoek, H.S.

08:30 **EDWARDS, N.R.**; RICHARDS, K.J.
Interleaving in the equatorial Pacific
08:45 **MOLEMAKER, M.J.**; SCHMEITS, M.J.; DIJKSTRA, H.A.
Variability in the wind-driven circulation in the North Atlantic
09:00 KOEKKOEK, H.S.
The interaction between gyre scale and local scale dynamics in the Agulhas region

09:15 IVCHENKO, V.O.; BEST, S.E.; **WELLS, N.C.**
The Agulhas current system: the influence of eddies on the time-mean circulation diagnosed from general circulation models

09:30 IVCHENKO, V.O.
The role of transient eddies in the dynamics of the ACC in the Indian sector of the southern ocean

09:45 **ARHAN, M.**; MERCIER, H.; LUTJEHARMS, J.
Description and history of three Agulhas rings intersected by WOCE hydrographic lines A13 and A14

10:00 ROED, L.P.
A pointwise energy diagnostic scheme for multilayer, nonisopycnic, primitive equation ocean models

10:15 **SHI, X.B.**; ROED, L.P.
Discrimination of instabilities on the front between the Norwegian Atlantic Current and the Norwegian Coastal Current

10:30 BREAK

Chairperson: Treguier, A.M.

11:00 BOWER, A.S.
The parthways and kinematics of meddies in the Iberian basin (Solicited Paper)

11:30 **BAEY, J.M.**; RENOUARD, D.
Instabilities of an intermediate water current

11:45 SADOUX, S.; RENOUARD, D.; FINCHAM, A.; BAEY, J.M.
Laboratory study of the interaction of an underwater current and a cape

12:00 **HAUSER, J.**; KÄSE, R.H.; RENOUARD, D.
Meddy generation and translation modelled on ocean and tank scales

12:15 **DUBUS, L.**; SPEER, K.G.; TREGUIER, A.M.
Baroclinic instability of a meridional current

12:30 ROBERTS, M.J.; MARSHALL, D.P.
Do we require adiabatic dissipation schemes in eddy resolving ocean models?

12:45 **MOREL, Y.**; MCWILLIAMS, J.
Influence of mixing on the stability of oceanic curents

13:00 LUNCH

Chairperson: Marshall, D.P.

14:00 **DEWAR, W.K.**; DE MIRANDA, A.P.; BARNIER, B.
Eddy-driven barotropic transport control by bottom friction: theoretical and numerical results

14:15 **ADCOCK, S.T.**; MARSHALL, D.P.
Interactions of ocean eddies with bottom topography

14:30 **PIERINI, S.**; FINCHAM, A.; RENOUARD, D.; D'AMBROSIO, M.; DIDELLE, H.
Laboratory modelling of topographic Rossby modes

14:45 MENKES, C.; MARCHAL, E.; LEBOURGES, A.; BIESSY, B.; MORLIERE, A.; DANDONNEAU, Y.; BALLE, J.; REVERDIN, G.; CHAMPALBERT, G.; FLAMENT, P.; KENNAN, S.
From instability waves to tuna in the tropical Atlantic

15:00 **THIERRY, V.**; MERCIER, H.; TREGUIER, A.M.
Direct observations of low frequency fluctuations in the deep equatorial Atlantic

15:15 ZERVAKIS, V.; NITTIS, K.; THEOCHARIS, A.; GEORGOPOULOS, D.
The interactive relation of water column structure and mesoscale circulation in the Cretan Sea during the last decade

15:30 **O'DWYER, J.**; WILLIAMS, R.G.; LACASCE, J.; SPEER, K.
Float dispersion and the climatological potential vorticity distribution

15:45 STUTZER, S.
Representing the eddy field in a high resolution model of the Irminger Sea

16:00 GASCARD, J.C.
Broad band spectrum of mesoscale eddies in the Greenland and Mediterranean seas related to deep water formation

16:15 **RUBINO, A.**; WOLF, S.; QUADFASEL, D.; SEIN, D.
The origin, structure and decay of a subsurface eddy in the Greenland Sea studied by in-situ measurements and numerical modelling

16:30 **LEVY, M.**; MEMERY, L.; MADEC, G.; VISBECK, M.; NAIK, N.
Mesoscale variability of the NW Mediterranean spring bloom: processes and parameterization

16:45 **RUIZ, S.**; GOMIS, D.; PEDDER, M.A.; FONT, J.; ALLEN, J.T.
Multivariate analysis of SeaSoar and ADCP data in the western Alboran Sea: synopticity test and sensitivity to reference level and analysis parameters

17:00 **RIXEN, M.**; BECKERS, J.-M.
Mesoscale analysis in the Alboran Sea: the impact of a relocation procedure to obtain pseudo-synoptic data

17:15 SALAT, J.
A dynamic method for horizontal distributions of sea water properties

17:30 END OF PART I

OA4 Circulation variability at mesoscale - Poster Session

Convener: Millot, C.
Co-Convener(s): Treguier, A.M.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:30 - 19:00
Poster Area: LES MUSES
Chairperson: Millot, C.

OA063 KÄSE, R.;**TYLER, R.**
The formation and propagation of energetic eddies in equatorial boundary currents

OA064 **DE MIRANDA, A.P.**; BARNIER, B.; DEWAR, W.K.
Subduction rates in the south Atlantic using a high resolution numerical model

OA065 **JIMENEZ, J.J.**; CABOS, W.; ORTIZ BEVIA, M.J.
Seasonal and interannual simulations of the North Atlantic variability with a regional oceanic model

OA066 BOUBNOV, G.G.
Short-period variability of the Luderitz upwelling cell

OA067 SANGRA, P.; GARCOA-WEIL, L.; PACHECO, M.; PELEGRO, J.L.; HERNANDEZ-GUERRA, A.; RATSIMANDRESY, A.W.; RAMOREZ, J.J.; CORTHETAS, J.M.; MARRERO, A.; GRISOLOA,D.; EUGENIO-GONZALEZ, F.
Drifters observations of a cold filament in the northwest Africa upwelling area

OA068 FIUZA, A.F.G.; MARTINS, C.S.
Surface circulation in the northeastern Atlantic region off Iberia

OA069 JIMENEZ, B.; SANGRA, P.
A numerical study on Gran Canaria island eddies generation

OA070 **ESTEBAN, M.**; RODRIGUEZ, I.; RUIZ DE ELVIRA, A.
A finite element model for the barotropic vorticity conservation equation: the Canary Islands

OA071 GINZBURG, A.I.; KOSTIANOY, A.G.; OSTROVSKII, A.G.
Mesoscale eddies in the Japan Sea

OA072 **GORSKY, G.**; TAUPIER-LETAGE, I.; PICHERALL, M.; STEMMANN, L.
Aggregates distribution in the eastern Algerian basin

OA073 **JÖNSSON, L.**; ZODIATIS, G.
Flow phenomena in the north Aegean Sea derived from satellite data

OA074 KRIVOSHEYA, V.G.; YAKUBENKO, V.G.; OVCHINNIKOV, L.M.; TITOV, V.B.; SKIRTA, A.YU.
Mesoscale circulation and variability of hydrophysical fields in the north-eastern part of the Black Sea

OA4 Circulation variability at mesoscale II

Convener: Millot, C.
Co-Convener(s): Treguier, A.M.
Friday, 24 April 1998
Lecture Room: URANIE
Chairperson: Font, J.

08:30 FIUZA, A.F.G.
Mesoscale dynamical regimes in the coastal ocean off Iberia

08:45 **FONT, J.**; MILLOT, C.; EMELIANOV, M.; SALAS, J.; RUIZ, S.; PITRAT, D.
Three-dimensional structure of a coastal mesoscale instability

09:00 **MILLOT, C.**; TAUPIER-LETAGE, I.; FUDA, J.L.
The Algerian eddies

09:15 **GERVASIO, L.**; MORTIER, L.
Coastal current instabilities in the presence of topography

09:30 **ALBEROLA, C.**; MILLOT, C.
Characteristics of the circulation in the Bay of Cassis

09:45 GARCIA, M.A.; HERRERA, M.D.; PUIGDEFABREGAS, J.; SANCHEZ-ARCILLA, A.; RIPPETH, T.; SIMPSON, J.; GUILLEN, J.; PALANQUES, A.; PUIG, P.
Temporal variability of teh shelf circulation off the Ebro delta at mesoscale

10:00 RAILLARD, O.; DELEVILLE, S.; MORTIER, L.
Modelling summar marine circulation of the Gulf of Lions: use of an embredded model

10:15 ARNOUX-CHIAVASSA, S.; DURAND, N.; DEVENON, J.L.; OUILLON, S.; REY, V.; FORGET, P.; FRAUNIE, P.; NAUDIN, J.J.
Wind driven dynamics of river plume in the Mediterranean Sea

10:30 **RUBINO, A.**; BRANDT, P.; QUADFASEL, D.; ALPERS, W.; SELLSCHOPP, J.; FIEKAS, H.-V.
Evidence fo the influence of Atlantic-Ionian stream fluctuations on the tidally induced internal dynamics in the Strait of Messina

10:45 END OF SESSION

OA5 Open session on coastal/shelf-sea dynamics

Convener: Lehmann, A.
Co-Convener(s): Shapiro, G.I.
Monday, 20 April 1998
Lecture Room: URANIE
Chairperson: Lehmann, A.

08:30 TALIPOVA, T.; PELINOVSKY, E.; HOLLOWAY, P.E.
Numerical simulation of the internal tide evolution on the north-west shelf of Australia

08:45 **BULGAKOV, S.N.**; MARTINEZ, A.Z.; MIKHAILOVA, E.N.; SHAPIRO, N.B.
Numerical study of the wind-driven circulation in the Mexican Pacific near-shore zone

09:00 MURRAY, S.P.; JAROSZ, E.
Dynamics of the Mississippi-Atchafalaya costal plume

09:15 **JACOBS, P.**; IVEY, G.N.
Convection over a continetal shelf and slope

09:30 **SHAPIRO, G.I.**; VORONOV, B.F.
Dynamics of baroclinic mesoscale eddies at the outer shelf

09:45 **SHAPIRO, G.I.**; AKIVIS, T.M.; PYKHOV, N.N.; ANTSYFEROV, S.M.
Transport of the fine suspended matter on the shelf by mesoscale currents

10:00 **TARTINVILLE, B.**; DELEERSNIJDER, E.; LAZURE, P.; PROCTOR, R.; RUDDICK, K.G.; UITTENBOGAARD, R.E.
Model intercomparison study for a three-dimensional idealised test case

10:15 KÄMPF, J.; FOHRMANN, H.
Deep water ventilation triggered by turbidity currents: numerical investigations

10:30 **JOHANNESSEN, B.O.**; MCCLIMANS, T.A.
The relation between coastal sea level and slope currents

10:45 BREAK

Chairperson: Lehmann, A.

11:00 MELSOM, A.
Ocean circulation in Vestfjorden (Oral + Video)

11:15 **KAUKER, F.**; VON STORCH, H.; OBERHUBER, J.M.
Variability of the North Sea inferred from an isopycnal ocean circulation model

11:30 **OUAHSINE, A.**; SENTCHEV, A.; NGUYEN, K.D.
Numerical investigations of the effects of topography on the tidal currents circulation

OA

11:45 **SMALL, J.**; SCOTT, J.; TALIPOVA, T.; PELINOVSKY, E.
Observations and modelling of an evolving internal bore during SESAME 1996

12:00 **GUIZIEN, K.**; INALL, M.; BARTHELEMY, E.
3D linear analytical model of internal tide generation on coastal margins

12:15 **CHERUBIN, L.**; DRITSCHEL, D.G.; MOREL, Y.G.; CARTON, X.J.
Observation and modelisation of vortex formation in the cae of the interaction of the Mediterranean outflow with submarine canyon

12:30 **SEIN, D.V.**; ALPERS, W.; BACKHAUS, J.O.; BRANDT, P.; IZQUIERDO, A.; KAGAN, B.A.; RUBINO, A.; TEJEDOR, L.M.
Numerical simulations of the surface and internal tides in the Strait of Gibraltar

12:45 **BRANDT, P.**; RUBINO, A.; ALPERS, W.; HOCK, L.
Shoaling of internal solitary waves on the Malay shelf in the Andaman Sea

13:00 ZHURBAS, V.M.; PAKA, V.T.; ANISIMOV, M.V.; GOLENKO, N.N.; SUBBOTINA, M.M.; KOSCHKOSH, G.A.
The Stolpe Channel overflow in the Baltic Sea: the observations and modelling

13:15 LUNCH

Chairperson: Shapiro, G.I.

14:00 **CESARINI, C.**; PINARDI, N.
Effects of the bottom boundary layer on the vertical structure of currents in the northern Adriatic

14:15 **HESSNER, K.**; RUBINO, A.; ALPERS, W.
The Rhine outflow studied by ERS1/2 SAR imagery and numerical simulations

14:30 RODHE, J.; CEDERLOEF, U.; LILJEBLADH, B.
Generation of baroclinic tides in the Kattegat - observations and modelling

14:45 **JANSSEN, F.**; SCHRUM, C.
Validating a several years model run by using temperature and salinity data

15:00 **DÖÖS, K.**; NYCANDER, J.; COWARD, A.
Early results from a 3-D primitive equation model applied to the Baltic and the North Sea

15:15 **LEHMANN, A.**; MALZ, S.
On the water and energy balance of the Baltic Sea

15:30 **PODEWSKI, S.**; FIEKAS, H.-V.; HERBIG, K.; FEDDERS, B.; WAEBER, W.
Hydrographic fine-scale variability in the Bornholm basin of the Baltic Sea in winter

15:45 SUURSAAR, Ü.; ASTOK, V.; OTSMANN, M.; KULLAS, T.
Exchange processes along the western coast of Estonia: local effects overrun by frontal plusations

16:00 **SALAT, J.**; ABELLO, P.; ARIN, L.; ARNAU, P.A.; CASTELLON, A.; GARCIA, M.A.; GUILLEN, J.; HERRERA, M.D.; JULIA, A.; DE LEON, A.; MASO, M.; OLIVAR, M.P.; PALANQUES, A.; PALOMERA, I.; PUIG, P.; PUIGDEFABREGAS, J.; SABATES, A.; SALAS, J.; SANCHEZ-ARCILLA, A.; SANCHEZ, J.; SCHNEIDER, P.; SOSPEDRA, J.
Seasonal evolution of water mass structure and shelf-slope echanges at the Iberian shelf (NW Mediterranean) preliminary results of fans cruises

16:15 **LIPS, U.**; LILOVER, M.-J.; HEKANSSON, B.; SUURSAAR
Hydrography of the gulf of Riga and water exchange propterties in the connecting straits, observations 1993-95

16:30 RAUDSEPP, U.
A numerical 3D simulation of the annual cycle of the Gulf of Riga thermohaline fields

16:45 KOROTAEV, G.K.; **SAENKO, O.A.**; SARKISYAN, A.S.; KNYSH, V.V.
Assimilation of altimeter data into the Black Sea circulation model

17:00 PICKART, R.S.
Structure and dynamics of a meander of the shelfbreak jet in the mid-Atlantic bight

17:15 END OF SESSION

17:00 Opening

19:30 Reception

Video presentation: Tuesday, 17.00-19.00 in the poster area

OA5 Open session on coastal/shelf-sea dynamics - Poster Session

Convener: Lehmann, A.
Co-Convener(s): Shapiro, G.I.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: LES MUSES
Chairpersons: Lehmann, A., Shapiro, G.I.

OA078 SKLYAROV, V.E.; BEREZUTSKII, A.V.
On the influence of internal waves packets on the velocity structure of shelf waters

OA079 SEREBRYANY, A.N.
Internal waves in coastal waters

OA080 **ROMANOU, A.**; WEATHERLY, G.L.
Buoyant Ekman layers over variable topography

OA081 **BULATOV, V.V.**; VLADIMIROV, Y.V.
Far field of internal gravity waves in a stratified ocean of variable depth

OA082 BERZINS, V.; BETHERS, U.; **SENNIKOVS, J.**
Internal waves in Gulf of Riga: observations and link with model of vertical TS structure

OA083 TALPSEPP, L.
On the coherent structure of currents in two straits of the Gulf of Riga

OA084 **LILOVER, M.-J.**; LIPS, U.; LAANEARU, J.
Sub-inertial currents in the Irbe Strait and their contribution to the water exchange

OA085 KOUTS, T.
Ventilation of upper deep layers of the Baltic Sea

OA086 OTSMANN, M.; ASTOK, V.; KULLAS, T. SUURSAAR, Ü.
Integral model for volume transport through the straits of the Gulf of Riga

OA087 CEDERLÖF, U.; LILJEBLADH, B.; RODHE, J.
High-resolution observations of currents and hydrography in the Kattegat

OA088 ARKHIPKIN, V.S.; AMETISTOVA, L.E.
Coastal upwelling as indicator of atmospheric processes

OA089 ZORAN, M.
Black sea coastal zone dynamics by satellite remote sensing data

OA090 GORYACHKIN, YU.N.; IVANOV, V.A.; **STEPANYANTS, YU.A.**
Analysis of the Black Sea level oscillations in the different places of the northern part of the coast

OA091 **GRÖNLUND, L.**; KUZNETSOV, L.; DRUZHKOV, N.
Hydrography of the Pechora sea, the southeastern Barents Sea

OA092 **BARBETSEAS, S.**; PAPAGEORGIOU, E.
Long term physical variations of waters in a deep basin of the Aegean Sea (Saronikos Gulf, Greece)

OA093 GRBEC, B.; DADIC, V.; MOROVIC, M.
Surface heat and water fluxes measurements

OA094 PAKLAR, G.B.; GRBEC, B.
Wind induced currents in the Adriatic Sea

OA095 SKLYAROV, V.E.; BEREZUTSKII, A.V.
Peculiarities of flow dynamics in the Canary current upwelling

OA096 NICOLAS, P.; RATSIVALAKA, C.; MARIETTE, V.; VERBEQUE, V.; PICHON, A.; **DEVEAUX, M.**
An upper layer temperature forecast in the Bay of Biscay

OA097 **STUTZER, S.**; KRAUSS, W.
The overflow of Denmark strait overflow water in a numerical model

OA098 ROLINSKI, S.
Particle transport simulations in coastal areas of the German Bight

OA099 **VIEZZOLI, D.**; MALACIC, V.
Tidal dynamics of the northern Adriatic Sea. Comparison of measurements and model results in the Gulf of Trieste

OA100 **SOUVERMEZOGLOU, E.**; KRASAKOPOULOU, E.
The effect of water formation on the distribtuion of oxygen and nutrients in the northern Aegean Sea

OA6 Dynamics of the polar ocean and its coupling to sea ice I

Convener: Willmott, A.J.
Co-Convener(s): Lemke, P.
Monday, 20 April 1998
Lecture Room: CALLIOPE
Chairperson: Willmott, A.J.

08:30 BIRNBAUM, G.
Modelling of atmosphere - sea ice interaction in the region of medium-sized polynyas

08:45 **FICHEFET, T.**; GOOSSE, H.
A numerical investigation of the Ross Sea polynya

09:00 **MORALES MAQUEDA, M.A.**; WILLMOTT, A.J.
A model for the time evolution of a latent heat polynya on the lee side of an island. Application to the St. Lawrence Island polynya

09:15 THOMAS, M.
Dynamics and thermodynamics of sea ice leads in the Weddell Sea

09:30 SALAS Y MELIA, D.
The regional impact of a lead model on sea ice concentration

09:45 **WOLFF, J.-O.**; MARSLAND, S.
Southern ocean coupled ocean/sea-ice modelling at medium and high resolutions

10:00 **GROTEFENDT, K.**; BACKHAUS, J.O.
The freshwater layer in the Greenland Sea

10:15 **WALTER, M.**; RHEIN, M.
Mechanisms of deep water formation and modification in the Greenland Sea

10:30 BREAK

Chairperson: Lemke, P.

11:00 **KOLTYSHEV, A.**; PRIAMIKOV, S.; TIMOKHOV, L.; COLONY, R.; MANLEY, T.; MORISON, J.; TANIS, F.
Thermohaline structure and macroscale variability of the Arctic Ocean

11:15 **WEHDE, H.**; BACKHAUS, J.O.
The influence of oceanic convection in carbon distribution

11:30 **EIDSVIK, K.J.**; UTNES, T.
Sediment entrainment into ice via suspended ice crystals

11:45 **IKEDA, M.**; UKITA, J.
A new research initiative for the coupled air-ice-ocean system in the Arctic (Solicited Paper)

12:15 **GARRIC, G.**; TANSLEY, C.; JAMES, I.N.
Dynamics of atmosphere-sea ice interactions at different resolutions in a simple GCM

12:30 **LE CLAINCHE, Y.**; BRACONNOT, P.; MARTI, O.; JOUSSAUME, S.
Coupling processes in high latitudes in the IPSL global coupled model

12:45 **RASMUSSEN, E.B.**; CHRISTENSEN, J.H.
A high resolution simulation of the Greenland sea Gyre with a coupled air-sea-ice regional model

13:00 LUNCH

Chairperson: Morales Maqueda, M.A.

14:00 PIACSEK, S.; WARN-VARNAS, A.; STARK, D.; MEHRA, A.
Sensitivity studies for modelling the GIN and Barents Seas with North Atlantic and Arctic models

14:15 **GERDES, R.**; KOEBERLE, C.
Large scale Atlantic Ocean response to high latitude atmospheric forcing in a coupled ocean-sea ice model

14:30 **PIETRZAK, J.**; RASMUSSEN, E.; JACOBSEN, J.B.
Large scale modelling of the Greenland iceland and Norwegian seas

14:45 **WILLMOTT, A.J.**; MORALES MAQUEDA, M.A.; DARBY, M.S.
Decadal variability in a coupled sea ice-ocean-atmosphere model

15:00 **HARDER, M.**; LEMKE, P.; HILMER, M.
Atmosphere-sea ice-ocean fluxes in SIMIP runs

15:15 **STEINER, N.**; HARDER, M.; LEMKE, P.; SCHUSTER, S.
Comparison of simulated and observed sea ice roughness

15:30 JÜRRENS, R.
Annual mean surface fluxes in polar regions simulated with REMO

OA

15:45 PARKINSON, C.L.; CAVALLIERI, D.J.; GLOERSEN, P.; ZWALLY, H.J.; COMISO, J.C.
Arctic Sea ice variability (Solicited Paper)
16:15 **QIAN, B.**; CORTE-REAL, J.; XU, H.
Preliminary study on variability of arctic sea ice extent
16:30 **MARTIN, T.**; KREYSCHER, M.; KOLATSCHEK, J.
Validation of a large-scale sea-ice model with SSM/I derived sea-ice drift fields for the Arctic
16:45 **HILMER, M.**; HARDER, M.; LEMKE, P.
Variability of a 40-year simulation of the Arctic sea ice cover
17:00 END OF PART I
17:00 Opening
19:30 Reception

OA6 Dynamics of the polar ocean and its coupling to sea ice II

Convener: Willmott, A.J.
Co-Convener(s): Lemke, P.
Tuesday, 21 April 1998
Lecture Room: CALLIOPE
Chairperson: Harder, M.

08:30 MARKUS, T.
A mixed-layer model of the southern ocean forced by satellite-derived ice concentrations
08:45 BUKATOV, A.E.; BUKATOV, A.A.
The broken ice effect on the propagation of surface waves of finite amplitude
09:00 **RUDELS, B.**; SCHAUER, U.; MUENCH, R.D.; GUNN, J.
The importance of advection, frontal mixing and slope convection for the Arctic Ocean intermediate and deep water characteristics
09:15 **STEELE, M.**; BOYD, T.
Retreat of the cold halocline layer in the Arctic Ocean
09:30 **SCHAUER, U.**; RUDELS, B.; LOENG, H.; MUENCH, R.; SWIFT, J.
Modification of waters in the Barents Sea and their input to the Eurasian basin through St. Anna Trough
09:45 **ANDERSON, L.G.**; CHIERICI, M.; FRANSSON, A.; DRANGE, H.; JOHANNESSEN, T.; SKJELVAN, I.
Annual variability of carbon flux in the upper Greenland Sea, as evaluated from measured data and a box model
10:00 **KARCHER, M.J.**; HARMS, I.H.; SMITH, J.M.
Using observed and simulated ^{129}I and ^{137}Cs distributions for tracing Arctic ocean circulation
10:15 **MERLIVAT, L.**; HOOD, M.
Time series of PCO_2, SST and fluorescence data measured by Carioca buoys drifting in the Greenland Sea between August 1996 and April 1997
10:30 END OF SESSION

Attend the Business Meeting of your Section

on Wednesday, 22 April, 12.00-14.00, Lecture Room Clio

OA6 Dynamics of the polar ocean and its coupling to sea ice - Poster Session

Convener: Willmott, A.J.
Co-Convener(s): Lemke, P.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: LES MUSES

OA034 **WILKINSON, J.**; WADHAMS, P.; MELDRUM, D.
Investigation of small scale ice dynamics within the Odden by the use of a GPS/ARGOS drifter
OA035 **WILKINSON, J.**; WADHAMS, P.
Ice-ocean physics from the March 1997 "Jan Mayen" cruise to the Odden
OA036 SIMONSEN, K.; DRANGE, H.
The general circulation, thermodynamics and water mass transformation in the Greenland Sea
OA037 MUENCH, R.D.; GUNN, J.T.; JOHNSON, E.
Submarine-based current measurements in the Arctic Ocean: some early results
OA038 **RUDELS, R.**; MEYER, R.; IVANOV, V.; QUADFASEL, D.
Hydrographic conditions in northern Fram Strait
OA039 **RUDELS, B.**; GRÖVALL, H.; HIETALA, R.; LAUNIAINEN, J.
Characteristics of the Denmark Strait overflow plume in fall 1997
OA040 **SCHAUER, U.**; FAHRBACH, E.
Interannual variability of a dense bottom water plume in the western Barents Sea
OA041 BUKATOV, A.E.; ZAV'YALOV, D.D.
Specialities of the flexural-gravity wave propagation through the rupture in the ice field
OA042 BUKATOV, A.E,; ZHARKOV, V.V.
Surface waves running onto the bottom's step in the sea with ice cover
OA043 **SÖDERKVIST, J.**; BJÖRK, G.
The climate sensitivity of the Arctic ocean ice cover; some results from a fully coupled atmosphere-ice-ocean column model
OA044 **CONNOLLEY, W.M.**; LACHLAN-COPE, T.; MARSHALL, G.J.; LEONARD, S.; TURNER, J.
Synoptic modelling of winter sea ice in the Bellingshausen Sea
OA045 HANNA, E.
Recent variablity of Antarctic sea-ice concentration and its physical causes
OA046 **CARRIERES, T.**; SAYED, M.
A comparison of ice drift simulations in the Gulf of St. Lawrence using Lagrangian and Eulerian models
OA047 GOOSSE, H.; **FICHEFET, H.**
Influence of sea-ice-ocean interactions on the ocean general circulation
OA048 ARKHIPKIN, V.S.; DIORDIEV, K.I.
Peculiarities of the ice drift in the Arctic Basin
OA049 **NIKIFOROV, S.**; DUNAEV, N.
Coastal geodynamics of Chukchy sea
OA050 **NIKIFOROV, S.**; DUNAEV, N.
Laptev's sea level variability in connection with green house effects
OA051 **TOUDAL, L.**; WADHAMS, P.; WILKINSON, J.
Preconditions for convection in the Greenland Sea

OA052 TIMOKHOV, L.; **COLONY, R.**; KOLTYSHEV, A.
Natural cycles and patterns among the upper ocean circulation of the Arctic Ocean, surface wind, and sea ice extent in the Siberian Seas

OA7 Antarctic ocean circulation: observations and models - Poster Session

Convener: Beckmann, A.
Co-Convener(s): Garcia, M.A.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: LES MUSES
Chairperson: Beckmann, A.

OA053 **GROSFELD, K.**; SCHRÖDER, M.; FAHRBACH, E.; GERDES, R.
Changes in the circulation pattern and water mass characteristics of the Filchner trough as a (possible) consequence of iceberg calving

OA054 FOLDVIK, A.; GAMMELSROD, T.; NYGAARD, E.; ISTERHUS, S.
One-year records of currents, temperature and salinity near the Ronne Ice Shelf, the Weddell Sea

OA055 **HELLMER, H.H.**; BECKMANN, A.
The influence of ice shelves on Weddell Sea waters

OA056 **UOTILA, J.**; LAUNIAINEN, J.; VIHMA, T.
Response of the Weddell Sea ice pack to wind forcing

OA057 BEREZUTSKII, A.V.; SKLYAROV, V.E.
Sonar measurements of current velocities in the Antarctic Ocean: results of the PS4 WOCE transect

OA058 HARLANDER, U.; **GASSMANN, A.**
Rossby waveguides in polar shear flows with boundaries

OA059 UDISTI, R.; BECAGLI, S.; TRAVERSI, R.; VERMIGLI, S.; PICCARDI, G.
Fluoride sources and distribution at Northern Victoria Land (Antarctica)

OA060 **WADHAMS, P.**; PARMIGGIANI, F.F.; DE CAROLIS, G.
Sea ice properties at the Antarctic winter ice edge from ERS-2 SAR imagery

OA7 Antarctic ocean circulation: observations and models

Convener: Beckmann, A.
Co-Convener(s): Garcia, M.A.
Friday, 24 April 1998
Lecture Room: URANIE
Chairperson: Beckmann, A.

11:00 MARTINSON, D.
Spatial/temporal patterns in Weddell gyre chracteristics and their relationship to global climate (Solicited Paper)

11:30 FAHRBACH, E.; **HELLMER, H.**; MEYER, R.; ROHARDT, G.; SCHROEDER, M.; WOODGATE, R.
Gradual warming of the Weddell deep and bottom water

11:45 GARCIA, M.A.
Decadal-scale variability of properties of the basin waters of teh Bransfield Strait (Antarctica)

12:00 **BONEKAMP, H.**; STERL, A.; KOMEN, G.J.
Interannual variability in the southern ocean associated with the Antarctic circumpolar wave

12:15 **CONNOLLEY, W.M.**; HARANGOZO, S.A.; KING, J.C.
Observations and modelling of large-scale variations in Antarctic sea ice edge

12:30 **SEMTNER, A.**; ZHANG, Y.
Antarctic currents in high-resolution ocean and climate models

12:45 LUNCH

Chairperson: Garcia, M.A.

14:00 MUENCH, R.D.
Deep ocean ventilation through Antarctic intermediate waters: the DOVETAIL Program (Solicited Paper)

14:30 GORDON, A.
Western Weddell outflow: thermohaline stratification

14:45 VISBECK, M.
Direct velocity measurements related to western Weddell outflow: transports and mixing

15:00 SCHODLOK, M.; **HELLMER, H.H.**
Spreading of water masses formed in the Weddell Sea

15:15 GOMIS, D.; PASCUAL, A.; GARCIA, M.A.; LOPEZ, O.
Three-dimensional circulation and mass transport in the western Bransfield Strait (Antarctica) during austral summer

15:30 BREAK

Chairperson: Hellmer, H.

16:00 **GROSFELD, K.**; GERDES, R.
Ocean circulation in the Filchner-Ronne ice shelf domain from 3D-modelling results

16:15 MAKINSON, K.
Tidal residual currents: their contribution to ocean circulation beneath Filchner-Ronne ice shelf

16:30 **BECKMANN, A.**; HELLMER, H.H.; TIMMERMANN, R.
A numerical model of the Weddell Sea: large-scale circulation and water mass distribution

16:45 **TIMMERMANN, R.**; BECKMANN, A.
Seasonal variability of sea ice in a coupled ice-ocean model focussed on the Weddell Sea

17:00 **ZHANG, Y.**; SEMTNER, A.J.
Ocean-ice interaction within the Weddell and Cosmonaut Seas from high-resolution models

17:15 **SALAS Y MELIA, D.**; THORKILDSEN, F.
A global ocean-sea ice coupled model: results for antarctic seas

17:30 **NAVEIRA GARABATO, A.C.**; STRASS, V.H.; LEACH, H.
3D mesoscale circulation at the Antarctic Polar Front - impacts on primary production

17:45 END OF SESSION

OA8 The Mediterranean Sea: general circulation variability and related processes

Convener: Pinardi, N.
Co-Convener(s): Send, U.
Tuesday, 21 April 1998
Lecture Room: URANIE
Co-sponsored by: E.U. - MAST Programme
Chairperson: N.N.

08:30 **CRISE, A.**; CRISPI, G.; SOLIDORO, C.
Interannual and seasonal variability of the Mediterranean ecosystem. A numerical study
08:45 **ELMOUSSAOUI, A.**; BECKERS, J.-M.
Isophycnal Mediterranean data analysis and seasonal variability of the outcroping
09:00 **NORRO, A.**; MARSALEIX, P.; DIAZ, F.; ESTOURNEL, C.
Hydrodynamic-biogeochemical 3D coupled model in the Gulf of Lion (France)
09:15 **MANCA, B.**; KOVACEVIC, V.; SCARAZZATO, P.
The two regimes of intermediate/deep flow pattern between the Ionian and Adriatic Sea
09:30 **WU, P.**; HAINES, K.
Modelling the spreading of the Aegean deep water and its effect
09:45 RHEIN, M.
Deep and intermediate water circulation in the western Mediterranean
10:00 **ARTALE, V.**; D'ORTENZIO, F.; IUDICONE, D.; MARCULLO, S.; RUPOLO, V.; SANTOLERI, R.
Hydrological characteristics of the LIW in long integrated OGCM experiments
10:15 KIOROGLOU, S.; THEOCHARIS, A.
Identification, pathways and mixing of intermediate water masses in the eastern Mediterranean during October - November 1991
10:30 BREAK

Chairperson: N.N.

11:00 **BECKERS, J.M.**; MEDMEX GROUP
Results of the Mediterranean models evaluation experiment (MEDMEX)
11:15 **BENKIRAN, M.**; DE MEY, P.
Comparison of vertical projection schemes applied to data assimilation in the Mediterranean
11:30 **BASCHEK, B.**; SEND, U.
Analysis of flow and transport measurements in the Strait of Gibraltar
11:45 MATTHIESEN, S.; **HAINES, K.**
Hydraulic control and overmixing in a Gibraltar-Mediterranean box model
12:00 PIERINI, S.; **RUBINO, A.**
Circulation modelling studies in the Straits of Sicily
12:15 **MORTIER, L.**; GERVASIO, L.; CREPON, M.
High resolution numerical model of Sicily strait: splitting of MAW current into two branches at the strait level
12:30 ONKEN, R.
Winter circulation in the Antalya basin
12:45 **RIERA, M.**; PINT, J.M.; LOPEZ-JURADO, J.L.; GANACHAUD, A.
Time flow variability in the Balearic channels and its relevance for the western Mediterranean circulation
13:00 LUNCH

Chairperson: N.N.

14:00 **GIORGETTI, A.**; MANCA, B.
Interannual variability of the Dense water in teh Adriatic Sea for the last 40 years
14:15 **MAGGIORE, A.**; ZAVATARELLI, M.; PINARDI, N.
Modelling the interannual variability of the Adriatic Sea general ciruculation
14:30 **AUCLAIR, F.**; MARSALEIX, P.; ESTOURNEL, C.; CASITAS, S.
Modelling of the coastal ocean circulation in the north-western Mediterranean Sea: method and results
14:45 **MYERS, P.G.**; HAINES, K.
A flux forced ocean general circulation model of the Mediterranean
15:00 **COLAS, F.**; CREPON, M.
Box models of the Mediterranean Sea and multiple equilibria of the thermohaline circulation
15:15 SANDO, A.B.
The general circulation of the Mediterranean Sea using an isopycnic coordinate ocean general circulation model (Poster)
15:20 MARTEL, F.
An analysis of the surface circulation internal variability of the Mediterranean Sea in a medmex modelling experiment (Poster)
15:25 **ARTALE, V.**; CONVERSANO, R.; SANNINO, G.
A numerical study of the Gibraltar Strait (Poster)
15:30 **FAGGIOLI, D.**; MORTIER, L.; CREPON, M.
A very high resolution model of the circulation of the Mediterranean Sea (Poster)
15:35 **ARTALE, V.**; RAGO, V.; IUDICONE, D.; RUPOLO, V.
Comparative studies between results from box models and OGCMS applied to the Mediterranean Sea (Poster)
15:40 **BRANKART, J.M.**; PINARDI, N.
Decadal and interannual variability in the Mediterranean Sea: model simulations and observations (Poster)
15:45 DJENIDI, S.; KOSTIANOY, A.G.; LACROIX, G.; SHEREMET, N.A.
Comparative analysis of SST interannual variability in the west Mediterranean Sea and north-east Atlantic Ocean (Poster)
15:50 SELLSCHOPP, J.
Western Mediterranean tpe LIW in the Sicilian Channel (Poster)
15:55 BOBANOVIC, J.
The response of the Adriatic Sea to an idealised travelling storm (Poster)
16:00 BUONGIORNO-NARDELLI, B.; **SALUSTI, E.**
On dense water formation criteria and their application to the Mediterranean Sea (Poster)
16:05 WARN-VARNAS, A.; PIACSEK, S.; CLIFFORD, M.; HERMAND, J.-P.
Studies of the mesoscale field during the 1995 Yellow Shark tomography experiment (Poster)
16:10 **CASTELLARI, S.**; PINARDI, N.
Numerical simulations of the Mediterranean general circulation for the period 1979-1993 (Poster)
16:15 KÄMPER, S.
Recent redistribution of helium in the eastern Mediterranean (Poster)

16:20 **BADEWIEN, T.**; RHEIN, M.
Gas transfer parameterization in the western Mediterranean (Poster)
16:25 TOMASIN, A.; **PIRAZZOLI, P.A.**
The seiches of the Adriatic Sea (Poster)
16:30 GUERZONI, S.; ROSSINI, P.
Is desert dust a possible atmospheric fertiliser for the Mediterranean ecosystem? (Poster)
16:35 **DRAKOPOULOS, P.G.**; TSIMPLIS, M.N.
Transports in eastern mediterranean during winter 1995 (Poster)
16:40 END OF SESSION

OA8 The Mediterranean Sea: general circulation variability and related processes - Poster Session

Convener: Pinardi, N.
Co-Convener(s): Send, U.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: LES MUSES
Co-sponsored by: E.U. - MAST Programme

OA101 SANDO, A.B.
The general circulation of the Mediterranean Sea using an isopycnic coordinate ocean general circulation model
OA102 MARTEL, F.
An analysis of the surface circulation internal variability of the Mediterranean Sea in a medmex modelling experiment
OA103 **ARTALE, V.**; CONVERSANO, R.; SANNINO, G.
A numerical study of the Gibraltar Strait
OA104 **FAGGIOLI, D.**; MORTIER, L.; CREPON, M.
A very high resolution model of the circulation of the Mediterranean Sea
OA105 **ARTALE, V.**; RAGO, V.; IUDICONE, D.; RUPOLO, V.
Comparative studies between results from box models and OGCMS applied to the Mediterranean Sea
OA106 **BRANKART, J.M.**; PINARDI, N.
Decadal and interannual variability in the Mediterranean Sea: model simulations and observations
OA107 DJENIDI, S.; KOSTIANOY, A.G.; LACROIX, G.; SHEREMET, N.A.
Comparative analysis of SST interannual variability in the west Mediterranean Sea and north-east Atlantic Ocean
OA108 SELLSCHOPP, J.
Western Mediterranean tpe LIW in the Sicilian Channel
OA109 BOBANOVIC, J.
The response of the Adriatic Sea to an idealised travelling storm
OA110 BUONGIORNO-NARDELLI, B.; **SALUSTI, E.**
On dense water formation criteria and their application to the Mediterranean Sea
OA111 WARN-VARNAS, A.; PIACSEK, S.; CLIFFORD, M.; HERMAND, J.-P.
Studies of the mesoscale field during the 1995 Yellow Shark tomography experiment
OA112 **CASTELLARI, S.**; PINARDI, N.
Numerical simulations of the Mediterranean general circulation for the period 1979-1993
OA113 KÄMPER, S.
Recent redistribution of helium in the eastern Mediterranean
OA114 **BADEWIEN, T.**; RHEIN, M.
Gas transfer parameterization in the western Mediterranean
OA115 TOMASIN, A.; **PIRAZZOLI, P.A.**
The seiches of the Adriatic Sea
OA116 GUERZONI, S.; ROSSINI, P.
Is desert dust a possible atmospheric fertiliser for the Mediterranean ecosystem?
OA117 **DRAKOPOULOS, P.G.**; TSIMPLIS, M.N.
Transports in eastern mediterranean during winter 1995

OA9 Basic turbulence studies - Poster Session

Convener: Petrosyan, A.
Co-Convener(s): Gerz, T.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: LES MUSES
Chairperson: Petrosyan, A.

OA217 VILORIA, R.E.; TRICIO, V.; RODRIGUEZ, L.R.; GONZALEZ, M.I.; SERNA, A.
Study of the atmospheric stability by using a 9 m meteorological mast
OA218 BATCHVAROVA, E.; GRYNING, S.-E.
Atmospheric turbulence and internal boundary layer development in Athens during the MEDCAPHOT-TRACE experiment
OA219 **MIX, W.**; ZIEMANN, A.; GOLDBERG, V.; BERNHARDT, K.
Simulation of meteorological quantities in plant stands
OA220 INFANTE, C.; **SOLER, M.R.**; CONANGLA, L.
Surface fluxes variability and his influence onthe development of the planetary boundary layer
OA221 CONANGLA, L.; VILA, J.; **SOLER, M.R.**
Stable boundary layer height derived from measurements and a planetary boundary layer model
OA222 BUENESTADO, P.; **SOLER, M.R.**
Vertical variation in turbulent statistics
OA223 DESSENS, J.; BENECH, B.; CAMPISTRON, B.; JACOBY, S.; DUPONT, E.; CARISSIMO, B.
UHF validation campaign using rawinsoundings, sodar, anemometers and disdrometer
OA224 KHVEDELIDZE, Z.; BIBILASHVILI, T.; DANELIA, R.
Calculation of the turbulent heat flow by means of the gradient method for the mountain terrain
OA225 GURGENIDZE, M.; BIBILASHVILI, T.; KHVEDELIDZE, Z.
Mathematical model of the turbulent flow of the polluted air with the due regard of the relief of Republic of Georgia

OA9 Basic turbulence studies

Convener: Petrosyan, A.
Co-Convener(s): Gerz, T.
Friday, 24 April 1998
Lecture Room: ERATO
Chairperson: Petrosyan, A.

08:30 **ZILITINKEVICH, S.**; GRYANIK, V.M.; LYKOSSOV, V.N.; MIRONOV, D.V.
A new concept of the 3rd order transport and non-local turbulence closures for convective boundary layers (CBLs) (Solicited Paper)
09:00 **ANFOSSI, D.**; DEGRAZIA, G.; FERRERO, E.; GRYNING, S.E.; MORSELLI, M.G.; TRINI CASTELLI, S.
Experimental evaluation of Kolmogorov constant C0 in the atmospheric surface layer
09:15 **CHALLINOR, A.J.**; MOBBS, S.D.; GARDINER, B.A.
First-order closure numerical modelling of the atmospheric boundary layer in and above a forest canopy
09:30 MODZELEWSKI, H.
A prognostic parameterization of the transient turbulence matrix for non-local closure
09:45 **MASSON, V.**; BOUGEAULT, P.
A new way to parameterize turbulence over high mountains
10:00 **DROBINSKI, P.**; BROWN, R.A.; FLAMANT, P.H.; PELON, J.
Modulation of surface fluxes by organized large eddies
10:15 BREAK

Chairperson: Bergmann, J.C.

11:00 **HAUSCHILD, A.**; SPITZER, H.-J.
Problems of and approaches to scale separation using the example of advection
11:15 DURAND, P.; THOUMIEUX, F.; **LAMBERT, D.**
Turbulent length scales in the marine atmospheric mixed layer
11:30 **ZILITINKEVICH, S.**; JOHANSSON, P.-E.; BAKLANOV, A.; MIRONOV, D.V.
A prognostic equation for the depth of evolving stably stratified atmospheric planetary boundary layers
11:45 DAVES, B.; TAMPIERI, F.; TUBINO, M.; **ZARDI, D.**
Exchange processes in a valley system: the effects of local circulation
12:00 FERRARI, A.; TAMPIERI, F.; **ZARDI, D.**
Convection and thermal structure in an alpine valley
12:15 PAVLOV, S.; PETROSYAN, A.
The cloudy boundary layer flows visualisation
12:30 **ATHANASSIADOU, M.**; CASTRO, I.P.
Wind - tunnel experiments of neutral flow over series of rough hills
12:45 BLUMEN, W.; GROSSMAN, R.L.
Physical processes in the atmosphere near the surface at night
13:00 LUNCH

Chairperson: Petrosyan, A.

14:00 LARSEN, S.; ZILITINKEVICH, S.
Surface fluxes in climate system. A new EU Project "SFINCS" (the years 1998-2000) (Solicited Paper)*
14:30 **CASADIO, S.**; RAO, M.P.; CACCIANI, M.; CALISSE, P.G.; CASTRACANE, P.; FIOCCO, G.
Measurement of atmospheric water vapor flux in the nocturnal urban boundary layer
14:45 **JACOBY, S.**; BENECH, B.; CAMPISTRON, B.; DESSEN, J.; DUPONT, E.; CARISSIMO, B.
Analysis of turbulence measurements in the atmospheric boundary layer by UHF profiler, sodar and sonic anemometer
15:00 BERGMANN, J.C.
Momentum balance-determined height of neutral and stable idealised PBL - applied to Cabauw and Leipzig data
15:15 **TOZZA, J.-R.**; HANUISE, C.; GRESILLON, D.
Characterization of atmospheric turbulence by the collective wave scattering approach
15:30 **ZIEMANN, A.**; ARNOLD, K.; RAABE, A.
Theoretical study of acoustic tomography inside the atmospheric boundary layer
15:45 **ARNOLD, K.**; ZIEMANN, A.; RAABE, A.
Experimental method of acoustic tomography of the atmospheric surface layer
16:00 **CALANCA, P.**; FORRER, J.; ROTACH, M.
The stably stratified boundary layer over the Greenland ice sheet
16:15 Meeting of participants of SFINCS Project
16:30 END OF SESSION

OA10 Fluxes over terrestrial surfaces .1 Surface fluxes in non-homogeneous terrain

Convener: Foken, Th.
Wednesday, 22 April 1998
Lecture Room: THALIE
Chairperson: Jensen, N.O.

Methodological studies I

09:00 PANIN, G.N.; TETZLAFF, G.; RAABE, A.
Turbulent simulation of the air flux above inhomogeneous surfaces
09:15 HORST, T.W.
The fetch requirements for profile and Bowen-ratio measurements of scalar fluxes
09:30 SCHMID, H.P.
Scaling up of measured fluxes from a vegetation stand to the ecosystem scale: a footprint based methodology
09:45 FRIBORG, T.; SOEGAARD, H.; NORSTROEM, C.; HANSEN, B.U.; CHRISTENSEN, T.R.
Scaling of CO_2 and CH_4 fluxes from chambers to landscape scale
10:00 JENSEN, N.O.; **HASAGER, C.B.**
On scalar surface flux aggregation in heterogeneous landscapes
10:15 BREAK

Chairperson: Schmid, H.P.

Methodological studies II

10:45 **FRIEDRICH, K.**; MÖLDERS, N.
A numerical case study on the sensitivity of the water and energy fluxes to the heterogeneity of the distribution of land use
11:00 **ISSLER, S.A.**; ROTACH, M.W.; SCHMID, H.P.
Large eddy simulation in neutral stratification over inhomogeneous vegetation canopy
11:15 IRITZ, Z.; LINDROTH, A.
Evaluation of the time-step effect on model results by using the modified Shuttleworth-Wallace evaporation model
11:30 **PANIN, G.N.**; NASONOV, A.E.; FOKEN, TH.
Model of the energy-mass exchange in a coastal zone
11:45 **WEIDINGER, T.**; MATYASOVSZKY, I.
Estimating turbulent fluxes using an optimal averaging method
12:00 LUNCH
12:00 Business Meetings

Chairperson: Horst, T.W.

Experimental studies I

14:00 **DI SABATINO, S.**; TAMPIERI,, F.; TROMBETTI, F.
The growth of the internal boundary layer in different stability conditions
14:15 JEGEDE, O.O.; **FOKEN, TH.**
Influence of roughness change on the profiles of mean wind and momentum flux observed in the neutral surface layer
14:30 KUKHARTES, V.P.; TSVANG, L.R.; RICHTER, S.H.; WEISENSEE, U.; **FOKEN, TH.**
Variation of the surface temperature and the closure of the energy balance of the surface layer
14:45 GROSSMAN, R.L.; LEMONE, M.A.; BLUMEN, W.
Effect of soil moisture on the diurnal variability of the atmospheric boundary layer
15:00 **PHERSSON, M.**; LINDROTH, A.
Effects of soil moisture dynamics on transpiration in a mixed coniferous forst in central Sweden

Chairperson: Panin, G.N.

Experimental studies II

15:15 **HOBBS, S.E.**; DYER, D.J.
Surface flux observations using remotely piloted aircraft - initial results
15:30 STRUNIN, M.A.; **FOKEN, TH.**
Influence of non-homogeneity of underlying surface on the structure of turbulence in the atmospheric boundary layer
15:45 **SCHUEPP, P.H.**; OGUNJEMIYO, S.O.; KAHARABATA, S.; DESJARDINS, R.L.; MACPHERSON, J.I.
Low-level airborne flux observations over heterogeneous terrain in BOREAS
16:00 VON HÜNERBEIN, S.; GASSNER, M.; RICHNER, H.
Surface heatflux extrapolated from sodar-derived heatflux profiles
16:15 **LAUBACH, J.**; MCNAUGHTON, K.G.
Unequal eddy diffusivities of heat and water vapour at the base of an advective inversion

Chairperson: Foken, Th.

Special studies

16:30 **POGGIO, L.**; FURGER, M.; GRABER, W.K.; PREVOT, A.
Scidar/DOAS measurements during the VOTALP valley experiment
16:45 **TAGLIAZUCCA, M.**; GIOSTRA, U.; CAVA, D.
Spectral analysis of topographic forcings in a stable boundary layer
17:00 END OF SUB-SESSION

OA10 Fluxes over terrestrial surfaces .1 Surface fluxes in non-homogeneous terrain - Poster Session

Convener: Foken, Th.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: LES MUSES
Chairperson: Foken, Th.

OA226 WEBER, R.O.
Remarks on the definition of friction velocity
OA227 INFANTE, C.; **SOLER, M.R.**
Land surface parameterization model. Comparison with measurements
OA228 LUND, M.R.
Modelling the partitioning of the evaporation from a heterogeneous millet crop in Burkina Faso
OA229 **RAABE, A.**; TETZLAFF, G.; PANIN, G.N.
Underestimation of turbulent fluxes and the degree of inhomogeneity of the land surface around the experimental site
OA230 ZIEMANN, A.; ARNOLD, K.; RAABE, A.
An experimental method for characterisation of non-ideal measuring sites
OA231 SIEGRIST, F.
Vertical flux profiles and problems of energy balance closure within the planetary boundary layer derived from eddy correlation measurements and tethered balloon soundings
OA232 **BEYRICH, F.**; NEISSER, J.; QUANTE, M.; WODE, CH.
Fluxes over heterogeneous land surfaces - the LITFASS-1998 experiment
OA233 ALADOS-ARBOLEDAS, L.; OLMO, F.J.
Sensible heat flux and radiometric surface temperature over sparse vegetation in a semiarid region
OA234 HURTALOVA, T.
Parametrization of local advection influence on water transport
OA235 **KOWALSKI, A.S.**; VONG, R.J.
Vertical evolution of turbulent cloudwater fluxes above forest

OA

OA236 **MARTANO, P.**; MATINO, M.
Vertical fluxes balance in coastal sites

OA237 CARDOSO, R.M.A.P.; MIRANDA, P.M.A.
Momentum fluxes due to sub-grib scale orographic effects

OA238 BLYTH, E.; HUNTINGFORD, C.
Estimating potential evaporation over a hill

OA239 DRUILHET, A.; SAID, F.
Surface fluxes, turbulent moments and characteristic scales of a tropical forest, a tropical savannah and a Sahelian savannah in Africa

OA240 **LEVY, P.E.**; GRELLE, A.; LINDROTH, A.; MOLDER, M.; JARVIS, P.G.; KRUIJT, B.; MONCRIEFF, J.B.
Regional-scale CO_2 fluxes over central Sweden by a boundary layer budget method

OA241 **FINKELE, K.**; KATZFEY, J.J.; KOWALCZYK, E.A.; MCGREGOR, J.L.; RAUPACH, M.R.
Regional energy flux measurements and modelling along a rainfall gradient in Australia

OA242 PANFYOROV, O.; KROEGER, M.; SCHNITZLER, K.-G.; GRAVENHORST, G.
Influence of vegetation cover heterogeneity on the spectral composition of up- and downward directed radiative fluxes

OA243 PAPAIOANNOU, G.; GIANNOPOULOS, P.; **RETALIS, D.**; ASIMOKOPOULOS, D.
Atmospheric radiation parameterizations

OA244 GOTTIKH, R.P.; LAUBENBAKH, E.; **MELTCHOUK, B.**; SHABALIN, N.YA.; BOROVSKY, M.YA.
Combine atmo-radiogeochemical survey and monitoring of manifestations of endogeneous processes

OA10 Fluxes over terrestrial surfaces .2 Long term measurements of surface fluxes

Convener: Valentini, R.
Thursday, 23 April 1998
Lecture Room: THALIE
Co-sponsored by: IGBP-BAHC, EUROFLUX EC Project
Chairperson: Schmid, H.-P.

09:00 **AURELA, M.**; LAURILA, T.; TUOVINEN, J.-P.
Measured and modelled CO_2 balances in a wetland ecosystem in northern Finland

09:15 **CALVET, J.-C.**; NOILHAN, J.; ROUJEAN, J.-L.
Introducing CO_2 assimilation in ISBA for interactive vegetation

09:30 **NORSTROM, C.**; FRIBORG, T.; HANSEN, B.U.; SOEGAARD, H.
Measurements of CO_2, CH_4, sensible and latent heat exchange at different tundra surfaces in a high Arctic environment

09:45 **MARTIN, P.H.**; LONGDOZ, B.; AUBINET, M.; SALTELLLI, A.; FRANCOIS, L.
Comparing, refining, and standardizing water, CO_2 and heat exchange modelling methodologies

10:00 **HUMMELSHOEJ, P.**; JENSEN, N.O.; PILEGAARD, K.
CO_2 and water vapour fluxes over a Danish beech forest

10:15 **SCHMID, H.P.**; BATHELMIE, B.; CURTIS, P.; GRIMMOND, S.; PRYOR, S.; TEERI, J.
CO_2 exchange in mixed hardwood forests inthe midwestern United States: two AmeriFlux projects

10:30 BREAK
Session continues 14.00 in room ERATO

Lecture Room: ERATO
Chairperson: Betts, A.

14:00 **FRÜHAUF, C.**; BERNHOFER, CH.; VOGEL, M.; ROTHE, M.
Components of forest evapotranspiration determined by micrometeorolocial and plant physiological methods

14:15 **VANDENHAUTE, M.**; AUBINET, M.; CHERMANNE, B.; LONGDOZ, B.; LAITAT, E.
Long term measurement of fluxes in a mixed Ardennes forest: 1. Inference of functional relationships

14:30 **AUBINET, M.**; VANDENHAUTE, M.; CHERMANNNE, B.; LONGDOZ, B.; LAITAT, E.
Long term measurement of fluxes in a mixed Ardennes forest: 2. Impact of measurement errors on the estimation of the carbon sink magnitude

14:45 **VESALA, T.**; RANNIK, Ü.; LAAKSO, L.; PUMPANEN, J.; ILVESNIEMI, H.; SALKINOJA-SALONEN, M.; WITTMAN, C.
Soil perspiration in cold climate for a Scots pine stand

15:00 **MARKKANEN, T.**; VESALA, T.; PALVA, L.; GARAM, E.; PALMROTH, S.; HARI, P.
Scaling of Scots pine shoot photosynthesis to canopy by high-resolution irradiance measurements

15:15 **SCHMID, H.P.**; HOLLINGER, D.; WOFSY, S.
AmeriFlux - the carbon flux network of the Americas: an overview of objectives and goals

15:30 **MARTY, CH.**; PHILIPONA, R.; FROEHLICH, C.; OHMURA, A.
Monitoring of longwave radiation in the Swiss Alpes

15:45 POCCARD, I.; RICHARD, Y.
A statistical study of NDVI sensitivity to seasonal and interannual rainfall variation in Southern Africa

16:00 **LONGDOZ, B.**; AUBINET, M.; MARTIN, P.H.; FRANCOIS, L.M.
Calibration and validation of the WATCH-IT model

16:15 **SPINDLER, G.**; BRÜGGEMANN, E.; TEICHMANN, U.; THEISS, D.
Long term study of wet and dry deposition of sulphur at a rural site in eastern Germany

16:30 END OF SESSION

OA10 Fluxes over terrestrial surfaces .2 Long term measurements of surface fluxes

Convener: Valentini, R.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: LES MUSES
Co-sponsored by: IGBP-BAHC, EUROFLUX EC Project

OA246 GARCIA, R.L.; DEMETRIADES-SHAH, T.H.; WELLES, J.M.; MCDERMITT, D.K.
Measurement of soil CO_2 flux

OA247 BERBIGIER, P.; OGE, J.; BONNEFOND, J.M.; LAMAUD, E.; BRUNET, Y.
Mass and energy fluxes over a pine forest canopy: energy and water balance closure, and intra-annual variations in water and radiation use efficiencies

OA248 **RANA, G.**; MAGLIULO, V.
A simplified aerodynamic method to measure ammonia flux over field crops under Mediterranean climate

OA249 **MENDONCA LEITE, S.**; AMORIM, V.
A comparative approach to surface fluxes variation in the soil/atmosphere interface

OA250 VOLKOV, YU.A.; **PLAKHINA, I.N.**
Variations of radiative fluxes in ARM-experiment in connection with cloudiness (measurement and modelling)

OA251 PHILIPONA, R.; MARTY, CH.; FROHLICH, C.; OHMURA, A.
Absolute measurements of night sky downwelling longwave radiation

OA252 KOLLE, O.
Six years of surface energy and water balance measurements at a site with agricultural land use

OA253 **REBMANN, C.**; SCHULZE, E.-D.; TENHUNEN, J.
Determination of turbulent fluxes of carbon dioxide and water vapour in different measuring heights above Spruce forest in south-east Germany

OA254 **KOWALSKI, A.S.**; CEULEMANS, R.; AUBINET, M.
Sensitivity of eddy correlation fluxes to the method of flux computation

OA255 **KOWALSKI, A.S.**; CEULEMANS, R.
Eddy correlation fluxes of carbon dioxide and water vapour above a mixed forest canopy in the Belgian Campine region

OA256 POLONIO, D.; **SOLER, M.R.**
Monthly variability of energy and matter fluxes over agricultural canopies. The influence of mesoscale and microscale processes

OA257 **TUOVINEN, J.-P.**; AURELA, M.; LAURILA, T.
Ozone deposition to a Scots pine and a mountain birch forest in northern Europe

OA258 HEIDENREICH, W.; WOLFF, G.; STÜDEMANN, O.; ECKERT, S.
Comparison of Trichloroacetic Acid (TCA) concentrations of two spruce sites in the Rostocker Heide, NE Germany

OA259 **NORDSTROM, C.**; FRIBORG, T.; HANSEN, B.U.; SOEGAARD, H.
Atmospheric fluxes of CO_2 above a high Arctic fen from spring to autumn two successive years in NE-Greenland

OA260 **KING, J.C.**; ANDERSON, P.S.
Long-term monitoring of surface fluxes at Halley Research Station, Antarctica

OA261 BETTS, A.K.; GOULDEN, M.; WOFSKY, S.
Controls on evaporation in a boreal spruce forest

* not included in the Book of Abstracts

OA11 Mesoscale transport of air pollution, including land/sea areas

Convener: Mikkelsen, T.
Co-Convener(s): Artinano, B.
Tuesday, 21 April 1998
Lecture Room: ERATO
Chairperson: Mikkelsen, T.

11:00 **SORENSEN, J.H.**; RASMUSSEN, A.; ELLERMANN, T.; LYCK, E.
Evidence for mesoscale influence on long-range dispersion (Solicited Paper)

11:30 **LENZ, C.-J.**; SCHLÜNZEN, K.H.; SCHATZMANN, M.; MAJEWSKI, D.
Calculation of meteorological data with atmospheric models of different horizontal resolution

11:45 BASTRUP-BIRK, A.; **BRANDT, J.**; MIKKELSEN, T.; THYKIER-NIELSEN, S.; ZLATEV, Z.
Testing meteorological fields and PBL parameterizations for modelling transport, dispersion, and deposition - validation against ETEX-1, ETEX-2, and Chernobyl

12:00 **CESARI, R.**; VOGEL, B.; FIEDLER, F.
The influence of subgrid scale mixing on the trace gas distribution in a numerical weather prediction model

12:15 GIORDANI, H.; PLANTON, S.; CANIAUX, G.
Ageostrophic circulations over the Azores oceanic front during the SEMAPHORE experiment

12:30 SOARES, P.M.M.; MIRANDA, P.M.A.; BARROSO, C.S.F.
The sea breeze in the south of Portugal: observations and numerical results

12:45 **CHOMETTE, O.**; LEGRAND, M.; CAUTENET, G.; PRADELLE, F.
A mesoscale study of a desert plume over west Africa and eastern Atlantic. Part 1: radiative impact

13:00 LUNCH

Chairperson: Brandt, J., Sorensen, J.H.

14:00 **CAUTENET, G.**; PRADELLE, F.; CHOMETTE, O.; LEGRAND, M.
A mesoscale study of a desert plume over west Africa and eastern Atlantic. Part 2: Dynamical and microphysical features

14:15 POULET, D.; CAUTENET, S.
Redistribution of chemical species in equatorial Africa during biomass burning events

14:30 **RENNER, E.**; GÖLDNER, R.; MÜNZENBERG-ST. DENIS, A.; SCHRÖDER, W.
Modelling of SO_2-transport over highly complex terrain with METRAS

14:45 SCHUEPBACH, E.; **LIEBERMANN, S.S.**; LEHMANN, D.; MONKS, P.S.; ZANIS, P.; PENKETT, S.A.; SCHNEITER, D.; BUCHMANN, B.
A case study with meso-scale transport of ozone to the Alpine site at Jungfraujoch during FREETEX'96

15:00 **WOTAWA, G.**; KROEGER, H.; SEIBERT, P.
Transport of ozone and precursors towards the Alps - results of a two-yer model study

15:15 **TROUDE, F.**; DUPONT, E.; CARISSIMO, B.; FLOSSMANN, A.I.
3D mesoscale simulation over Paris agglomeration

OA

15:30 **TULET, P.**; ROSSET, R.; CRASSIER, V.
A case of photooxidant plume modelling over Paris area

15:45 **TIPPKE, J.**; MEMMESHEIMER, M.; JAKOBS, H.J.; EBEL, A.; GRAFF, A.; MOTZ, G.B.; HARTMANN, A.
Emission reduction scenarios on different hoizontal scales and its impact on photo-oxidant formation

16:00 **MÜLLER, F.**; SCHLÜNZEN, K.H.; SCHATZMANN, M.
Test of mathematical solvers for chemical mechanisms in 3D-air quality models

16:15 **MANTILLA, E.**; MILLAN, M.; SALVADOR, R.; SANZ, J.M.; CARRATALA, A.; PALAU, J.L.
Tracking the dynamics of an elevated plume on the Spanish Levantine coast

16:30 **SCHMIDT, H.**; ELBERN, H.; EBEL, A.
4D variational assimilation of ozone data with the EURAD-CTM

16:45 **JAKOBS, H.J.**; EBEL, A.; JACOBSEN, I.; RISSMANN, J.; FRIEDRICH, R.; WICKERT, B.; FIEDLER, F.; NESTER, K.
A model network for operational regional ozone forecast *

17:00 END OF SESSION

OA11 Mesoscale transport of air pollution, including land/sea areas - Poster Session

Convener: Mikkelsen, T.
Co-Convener(s): Artinano, B.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:30 - 19:00
Poster Area: LES MUSES

OA263 **RUA, A.**; GIMENO, L.; MARTIN, I.; HERNANDEZ, E.
Trends and seasonal variations of NH_4^+ in the air of Spanish EMEP stations

OA264 **RUA, A.**; BOURHIM, S.; HERNANDEZ, E.
Analysis cluster characterizing SO_2 and sulphate patterns in Europe

OA265 **DE RIDDER, K.**; MENSINK, C.
Remotely sensed surface sensible heat flux for air pollution dispersion studies

OA266 BROJEWSKI, R.
Effective modelling of the low tropospheric flows and advective-diffusive processes with a singular initial conditions

OA267 **CANEPA, E.**; MODESTI, F.; RATTO, C.F.
Performances of the dispersion code SAFE_AIR using different procedures to calculate the advective wind

OA268 **RUA, A.**; GIMENO, L.; HERNANDEZ, E.
Geographical sources of suspended particulated matter in Spain

OA269 **RUA, A.**; GIMENO, L.; HERNANDEZ, E.
Trends and seasonal variations of the suspended particulated matter in Spain

OA270 **RUA, A.**; GIMENO, L.; MARTIN, I.; HERNANDEZ, E.
Geographical sources of NH_4^+ in Spain

OA271 PERIS, G.; SANZA, G.; CARDA, J.; ESTEVE, V.
Quantitative X-ray diffraction analysis and size distribution of airborne particulate

OA272 SANZA, G.; DELGADO, C.; CARDA, J.; ESTEVE, V.
Tropospheric aerosol at three Mediterranean sites: elemental composition of fine airborne particulate

OA273 MOLUS, I.; DELGADO, C.; ROSEL, J.; ESTEVE, V.
X-ray diffraction phase identification of the atmospheric aerosol near the Mediterranean coast

OA274 DELGADO, C.; SANZA, G.; ROSEL, J.; ESTEVE, V.
X-ray fluorescence elemental analysis of TSP at Castellon, Spain

OA275 QUEROL, X.; ALASTUEY, A.; MANTILLA, E.; MIRO, J.V.; LOPEZ-SOLER, A.; PLANA, F.; **ARTINANO, B.**
Determination of source origin of atmospheric total suspended particles and PM10 peaks in a rural area from the western Mediterranean basin

OA12 Extreme weather events in the Mediterranean

Convener: Prodi, F.
Co-Convener(s): Eidelman, A.E.
Monday, 20 April 1998
Lecture Room: THALIE
Chairperson: N.N.
Editors: Prodi, F.; Fantini, M.; Malguzzi, P.; Buzzi, A.

11:00 FANTINI, M.
OA12-001 Role of parameterized moisture effects in the development of mesoscale vortices

11:15 **LIONELLO, P.**; MALGUZZI, P.; SANNA, A.
OA12-002 Air-sea fluxes during the development of a Mediterranean cyclone

11:30 MALGUZZI, P.; CHESSA, P.; **BUZZI, A.**
OA12-003 The role of surface heat fluxes in the development of a Mediterranean "hurricane"

11:45 **EIDELMAN, A.**; GOLBRAIKH, E.
OA12-004 Extreme atmospheric events formation due to helical turbulence and its laboratory simulation

12:00 GOLDBAUM, B.; EIDELMAN, A.; BRANOVER, H.; **MOISEEV, S.S.**
OA12-005 Turbulence in the wake and vortex quasi-particles

12:15 REALE, O.
OA12-006 Dynamics and classification of two sub-synoptic scale "hurricane-like" vortices over the Mediterranean Sea

12:30 **MUGNAI, A.**; ACCADIA, C.; DIETRICH, S.; MARZANO, F.S.; ROBERTI, L.
OA12-007 SSM/I analysis of two "hurricane-like" vortices over the Mediterranean Sea

12:45 **PYTHAROULIS, I.**; CRAIG, G.C.; BALLARD, S.P.
OA12-008 Study of the hurricane-like Mediterranean cyclone of January 1995

13:00 LUNCH

Chairperson: N.N.
Editors: Prodi, F.; Fantini, M.; Malguzzi, P.; Buzzi, A.

14:00 OA12-009 **ESTARELLAS, C.**; JANSA, A.; GENOVES, A.; CAMPINS, J.; PICORNELL, M.A.
A case of deep cyclone associated to extreme weather in the Mediterranean

14:15 OA12-010 BAUER, P.; DRÜEN, B.; **SCHANZ, L.**; SCHULZ, J.
Severe flood events in central Europe: a comparison between satellite-derived rain rates and radar measurements

14:30 OA12-011 SENESI, S.; MOREL, C.
A climatology of mesoscale convective systems south of the Alps

14:45 OA12-012 **LAGOUVARDOS, K.**; KOTRONI, V.; KALLOS, G.
On the March 1987 extreme cold outbreak over the Greek peninsula

15:00 OA12-013 **KOTRONI, V.**; LAGOUVARDOS, K.; KALLOS, G.; ZIAKOPOULOS, D.
Observational and model analysis of a severe flooding event over Greece

15:15 OA12-014 **QUADRI, C.**; FEHLMANN, R.; DAVIES, H.C.
Upper-level PV structures and heavy precipitation south of the Alps: a sensitivity study

15:30 OA12-015 **SCHNEIDEREIT, M.**; SCHÄR, C.
Atmospheric flow regimes associated with a Piedmont-like low-level jet

15:45 OA12-016 **ROMERO, R.**; RAMIS, C.; GUIJARRO, A.
Objective classification of the heavy rainfall patterns in Mediterranean Spain

16:00 OA12-017 **FREI, C.**; SCHÄR, C.
Heavy precipitation along the southern rim of the Alps: a climatology from high-resolution rain-gauge data

16:15 OA12-019 **MAUGERI, M.**; BARBIERO, R.; BELLUME, M.
Reconstruction of heavy rainfall events over the Po basin from 1868 to the end of the 19th century

16:30 OA12-020 BURDE, G.I.
A model for dynamic explanation of some dust events

16:45 END OF SESSION
17:00 Opening
19:30 Reception

OA12 Extreme weather events in the Mediterranean - Poster Session

Convener: Prodi, F.
Co-Convener(s): Eidelman, A.E.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: LES MUSES
Chairperson: N.N.
Editors: Prodi, F.; Fantini, M.; Malguzzi, P.; Buzzi, A.

OA309 OA12-021 **TAURAT, D.**; KLEPP, C.; PAPKE, F.
Monitoring of raining systems using SSM/I and METEOSAT data

OA310 OA12-022 **TRIGO, I.F.**; DAVIES, T.D.; BIGG, G.R.
Objective climatology of cyclones in the Mediterranean region

OA311 OA12-023 GIMENO, L.; **RUA, A.**; GOMEZ, M.; OLALLA, R.
Extreme wind events in Spain

OA312 OA12-024 GIMENO, L.; **RUA, A.**; RODRIGUEZ, T.; TESOURO, M.
Extreme precipitation events in Spain

OA313 OA12-025 MOROZOVSKY, E.
Case study of a frontal passage over Israel

OA314 OA12-026 ARNAUD, P.; **PICARD, S.**; LAVABRE, J.; DOUGUEDROIT, A.
Hourly rainfall stochastic generation: application on French Mediterranean seaboard

OA315 OA12-027 BONASONI, P.; BONAFE, U.; CALZOLARI, F.; COLOMBO, T.; EVANGELISTI, F.; LENAZ, R.; SANTAGUIDA, R.; TESI, G.
Dust transport across the Mediterranean basin and simultaneous abrupt change in the free troposphere trace gases behaviour

OA316 OA12-028 **BARGAGLI, A.**; CARILLO, A.; MARIOTTI, A.; PISACANE, G.; RUTI, P.M.; STRUGLIA, M.V.
An integrated forecast system over the Mediterranean Basin: extreme surge prediction in the northern Adriatic Sea

OA317 OA12-029 MIRANDA, P.M.A.; SOARES, P.M.M., ALMEIDA, M.
A case of extreme precipitation in southern Portugal

OA318 OA12-030 PORCU, F.; DIETRICH, S.; MUGNAI, A.; NATALI, S.; PRODI, F.; CONWAY, P.
Satellite multi-frequency observations of severe convective systems in the Mediterranean

OA318A OA12-031 **GOLBRAIKH, E.**; CHKHETIANI, O.G.; MOISEEV, S.S.; EIDELMAN, A.; BRANOVER, H.
On the character of turbulent energy redistribution in helical flows

OA318B OA12-032 GRANBERG, I.G.
Numerical simulation of possible extreme events due to orography at Cyprus

OA318C OA12-033 **STRELEC-MAHOVIC, N.**; BRZOVIC, N.
Cyclonic activity and severe jugo in the Adriatic

OA13 Cyclogenesis and fronts: FASTEX I

Convener: Chalon, J.-P.
Co-Convener(s): Thorpe, A.J.
Wednesday, 22 April 1998
Lecture Room: CLIO
Chairperson: Snyder

14:00 **JOLY, A.**; BESSEMOULIN, P.; BROWNING, K.A.; CAMMAS, J.P.; CHALON, J.P.; CLOUGH, S.A.; EMANUEL, K.A.; GALL, R.; HILDEBRAND, P.H.; JORGENSEN, D.; LANGLAND, R.H.; LEMAITRE, Y.; MASCART, P.; MOORE, J.A.; PERSSON, P.O.G.; SHAPIRO, M.A.; SNYDER, C.; TOTH, Z.; WAKIMOTO, R.M.
The Fronts and Atlantic Storm-Track Experiment (FASTEX): an overview of the field phase (Solicited Paper)

14:30 **BADGER, J.**; HOSKINS, B.J.
Mechanisms for mid-latitude cyclone development

14:45 **SHAPIRO, M.A.**; WERNLI, H.
Upstream baroclinic development of secondary frontal-wave cyclones: idealized and observed

15:00 **MALARDEL, S.**; ARBOGAST, P.; JOLY, A.
Interpretation of mid-latitude cyclogenesis using a linear framework

OA

15:15 **RAVETTA, F.**; ANCELLET, G.; CAMMAS, J.-P.
Two-dimensional airborne ozone measurements during FASTEX

15:30 **FEHLMANN, R.**; DAVIES, H.C.
Role of salient PV-elements in an event of frontal-wave cyclogenesis

15:45 THORNCROFT, C.; JONES, S.
The extratropical transformation of Atlantic hurricanes in 1995

16:00 THORPE, A.J.
A review of theories of frontal-scale dynamics (Solicited Paper) *

16:30 **CAMMAS, J.-P.**; POUPONNEAU, B.; DESROZIERS, G.; SANTURETTE, P.; JOLY, A.
Overview of the life cycle of a FASTEX cyclone: IOP 17

16:45 END OF PART I

OA13 Cyclogenesis and fronts: FASTEX II

Convener: Chalon, J.-P.
Co-Convener(s): Thorpe, A.J.
Thursday, 23 April 1998
Lecture Room: CLIO
Chairperson: Thorpe, A.J.

08:30 BLUMEN, W.
The frontal width problem

08:45 **CHABOUREAU, J.-P.**; THORPE, A.J.
Role of frontogenesis on frontal wave development in FASTEX

09:00 PARKER, D.
A secondary frontal wave in negative strain

09:15 **HEWSON, T.**; RENFREW, I.; BISHOP, C.
Frontal wave development in numerical model forecasts

09:30 **YAMAZAKI, Y.H.**; PELTIER, W.R.
Sub-synoptic scale instability along the jet stream

09:45 BRYAN, G.H.; CHARNEY, J.J.; FRITSCH, J.M.
Discrete frontal propagation induced by convection

10:00 CHARNEY, J.J.; FRITSCH, J.M.
Discrete frontal propagation in a non-convective environment

10:15 JUCKES, M.N.
The ageostrophic circulation in baroclinic waves growing on frontal temperature gradients

10:30 **GRIFFITHS, M.**; THORPE, A.J.; BROWNING, K.A.
The role of the tropopause in destabilizing the atmosphere

10:45 BREAK

Chairperson: Hildebrandt

11:00 SHAPIRO, M.A.
Review of ideas concerning mesoscale structure within extra-tropical cyclones (Solicited Paper) *

11:30 **MALLET, I.**; CAMMAS, J.-P.; MASCART, P.
Mesoscale modelling of a FASTEX cyclone: sensitivity to physical processes during early stages of development

11:45 **CLOUGH, S.**; ROBERTS, N.; LEAN, H.
Comparison of mesoscale dynamical structures from FASTEX dropsoundings with forecast model fields

12:00 **BOUNIOL, D.**; LEMAITRE, Y.; MONTMERLE, T.
Three dimensional study of dynamical and thermodynamical fields deduced from airborne Doppler radar and dropsonde data

12:15 MOINE, M.-P.; ROUX, F.
Dynamic and thermodynamic structure of the mid-latitude cyclone observed on 19 February 1997 during FASTEX

12:30 **LAMBERT, D.**; CAMMAS, J.-P.; MASCART, P.
Structure and evolution of the boundary layer during the FASTEX IOP 18

12:45 **LEMAITRE, Y.**; SCIALOM, G.; BOUNIOL, D.
Multiscale processes involved in the mature phase of a "bomb like" deepening

13:00 END OF SESSION

OA13 Cyclogenesis and fronts: FASTEX - Poster Session

Convener: Chalon, J.-P.
Co-Convener(s): Thorpe, A.J.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: LES MUSES
Chairperson: Mascart, P.

OA276 **JAUBERT, G.**; PIRIOU, C.
The FASTEX database: a large archive for north Atlantic cyclones studies

OA277 **MALLET, I.**; CAMMAS, J.-P.; BAEHR, C.
Role of the environmental flow and contribution of a decaying low on the development of a FASTEX cylone (IOP17)

OA278 **SZÖCS, H.L.**; KOSA-KISS, A.
New observational proofs for short-therm variations of formations of lower troposphere assigned to great sunspots as contributions to the cyclogenesis

OA279 MARQUET, P.
Application of exergy theory to local atmospheric energetics: diagnostics for a FASTEX event

OA280 **BIRKETT, H.R.**; THORPE, A.J.
Reduced upper-tropospheric potential vorticity

OA281 **DONNADILLE, J.**; CAMMAS, J.-P.; MASCART, P.
Upper level dynamic of a FASTEX cyclone: IOP 18

OA282 FOURRIE, N.; CLAUD, C.; JOLY, A.; CAMMAS, J.-P.
Identification of tropopause-level thermal anomalies from TOVS observations

OA283 JUCKES, M.N.
How do cyclones affect the large scale mean height of the tropopause?

OA284 CLOUGH, S.; **LEAN, H.**
Observations and simulations of a developing frontal wave during FASTEX IOP 16

OA285 BROWNING, K.A.; **ROBERTS, N.M.**
Mesoscale analysis of arc rainbands in a dry slot

OA286 HILDEBRAND, P.H.
Aircraft observations of frontal circulations and structures in FASTEX

OA287 **SCIALOM, G.**; LEMAITRE, Y.; PROTAT, A.
Overview of the mescoscale circulation and vorticity within systems sampled during FASTEX

OA288 **BERGOT, T.**; DESROZIERS, G.; POUPONNEAU, B.; JOLY, A.
Adjiont-based targeted observations during FASTEX: impact and feasibility studies

OA289 **MONTANI, A.**; THORPE, A.J.
Use of ECMWF singular vectors for targeting during FASTEX

OA290 SZUNYOGH, I.; **TOTH, Z.**; BISHOP, C.; EMANUEL, K.; SNYDER, C.; WOOLLEN, J.; WU, W.-S.; MARCHOK, T.; MORSS, R.
Ensemble-based targeted observations during FASTEX

OA291 **SNYDER, C.**; TRIER, S.; MORSS, R.
Dynamics and statistics of forecasts errors in a quasi-geostrophic model

OA292 **ARBOGAST, P.**; JOLY, A.
Precursors identification of FASTEX IOP17 cyclogenesis using potential vorticity inversion concept

OA14 Parametrizations in large scale atmospheric models
.1 Intercomparison and validation of the ocean-atmosphere flux fields I

Convener: Gulev, S.
Co-Convener(s): Taylor, P.K.
Monday, 20 April 1998
Lecture Room: ERATO
Chairperson: Gulev, S.

Surface fluxes in atmospheric models

09:00 GULEV, S.; TAYLOR, S.; VITERBO, P.
Session overview

09:15 **STENDEL, M.**; BENGTSSON, L.
The hydrological cycle from high resolution assimilation experiments for selected regions of the Earth (Solicited Paper)

09:45 **ROADS, J.**; AUAD, G.; MILLER, A.; CAYAN, D.; CHEN, S.; WHITE, W.
Comparison and utilization of NCEP GSM surface stress and energy and water fluxes for coupled ocean-atmosphere modelling and prediction

10:00 **DE MONTETY, A.**; FICHEFET, TH.; PONCIN, CH.
Impact of the horizontal grid in an atmospheric model

10:15 JOSSE, P.; CANIAUX, G.; PLANTON, S.
Intercomparison of ocean atmosphere fluxes from atmospheric and oceanic mesoscale simulations

10:30 BREAK

Chairperson: Gulev, S.

Forcing fields for ocean modelling

11:00 BARNIER, B.
Forcing ocean general circulation models with air-sea flux fields (Solicited Paper)

11:30 **GULDBERG, A.**; KAAS, E.
Using tendency erros to optimize horizontal diffusion in a general circulation model

11:45 **FERRY, N.**; REVERDIN, G.; OSCHLIES, A.
An OGCM simulation forced by daily ECMWF surface fluxes: how to deduce oceanic heat fluxes from sea level variations?

12:00 MCCULLOCH, M.E.; LEACH, H.
Validation of FOAM model fluxes using data from the Vivaldi-96 cruise in the northeast Atlantic

12:15 SCHRUM, C.
Investigation of the heat budgets for North Sea and Baltic Sea. Results of model experiments

12:30 LUNCH

Chairperson: Taylor, P.K.

Enclosed seas and regional balances: VOS climatologies and field experiments

14:00 **ISEMER, H.-J.**; LINDAU, R.; JACOB, D.
Evaporation at the surface of the Baltic Sea

14:15 ROZWADOWSKA, A.
Uncertainty in estimation of mean solar radiation fluxes at the Baltic surface from irregular ship-borne meteorological observations

14:30 **SCHIANO, M.E.**; BORGHINI, M.; BELARDINELLI, F; LUTTAZZI, C.
A critical analysis of the empirical formulae for estimating the radiative fluxes over the western Mediterranean Sea

14:45 **MOORE, G.W.K.**; ALVERSON, K.
Air-sea interaction and the Weddell polynya

15:00 REPINA, I.A.
Air-sea-ice interaction in polar regions on the base of experimental data

15:15 **CANIAUX, G.**; EYMARD, L.; GIORDANI, H.
The sea surface flux dataset collected during the CATCH/FASTEX experiment

15:30 **BUMKE, K.**; KARGER, U.; GROSSKLAUS, M.
Air-sea flux and precipitation measurements in the Labrador sea during February and March 1997

15:45 **RENFREW, I.A.**; MOORE, G.W.K.
Observations of roll vortices during an extreme cold air outbreak over the Labrador Sea

16:00 **GROSSKLAUS, M.**; HASSE, L.
Dropsize distributions of marine tropical precipitation from different climatic regions

16:15 FENG, M.; HACKER, P.; LUKAS, R.
Upper ocean heat and salt balances in the western equatorial Pacific during TOGA COARE

16:30 DOBROLIUBOV, S.A.
The North Atlantic ocean-atmosphere heat and fresh water flux variability derived from oceanographic repeated sections data

16:45 END OF PART I

17:00 Opening

19:30 Reception

Attend the Business Meeting of your Section

on Wednesday, 22 April, 12.00-14.00, Lecture Room Clio

OA14 Parametrizations in large scale atmospheric models
.1 Intercomparison and validation of the ocean-atmosphere flux fields II

Convener: Gulev, S.
Co-Convener(s): Taylor, P.K.
Tuesday, 21 April 1998
Lecture Room: ERATO
Chairperson: Lukas, R.

Remotely sensed flux fields, waves and stress

08:45 **SCHULZ, J.**; JOST, V.
On the sampling error of microwave rain rate retrievals in the tropical Pacific

09:00 LIU, Q.
Derivation of the latent heat flux over Atlantic Ocean by satellite-borne microwave radiometer

09:15 **BAUER, E.**; BÜRGER, G.
On the history of ocean waves in the North Sea

09:30 MAKIN, V.K.
Wind over waves coupling

09:45 GOURRION, J.; CHAPRON, B.; VANDEMARK, D.; ELFOUHAILY, T.
Satellite-derived ocean surface roughness and its use in regional wind stress determination

10:00 Poster Summaries

GULEV, S.; DOBROLIUBOV, S.
Intercomparison of the regional heat balances from hydrographic data and VOS observations for the North Atlantic mid latitudes

VOLKOV, YU.A.; **REPINA, I.A.**
Measuring of atmosphere-sea-land interaction in northern part of Caspian Sea

KUZMIERCZYK-MICHULEC, J.; **ROZWADOWSKA, A.**
Retrieval of optical properties of the Baltic aerosols - comparison of two methods

SHIFRIN, K.S.; ZOLOTOV, I.G.
A method for determining the wind velocity from lidar measurements of atmospheric aerosol

JOST, V.; SCHULZ, J.
HOAPS: a satellite-derived water balance climatology

GOODRICK, S.L.; BOURASSA, M.A.; LEGLER, D.M.
Impact of surface layer height consideration on air-sea fluxes for the North Atlantic

EWALD, S.; SCHLÜSSEL, P.
Foam coverage and skineffect of the ocean from satellite data

COMPAGNUCCI, R.; SALLES, M.A.
ENSO events impact on the atmospheric circulation and anomalies of the main climatic variables over the southern cone

MOAT, B.I.; YELLAND, M.J.; TAYLOR, P.K.
The impact of airflow distortion on in-situ meteorological wind speed measurements

KAPALA, A.; MAECHEL, H.
Comparison of surface humidity and air temperature above the oceans from NCEp and COADS data sets

QUILFEN, Y.; BENTAMY, A.; GRIMA, N.; DELECLUSE, P.
Use of satellite fluxes for ocean modelling

10:30 END OF SUB-SESSION

OA14 Parametrizations in large scale atmospheric models
.1 Intercomparison and validation of the ocean-atmosphere flux fields - Poster Session

Convener: Gulev, S.
Co-Convener(s): Taylor, P.K.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: LES MUSES

OA157 **GULEV, S.**; DOBROLIUBOV, S.
Intercomparison of the regional heat balances from hydrographic data and VOS observations for the North Atlantic mid latitudes

OA158 VOLKOV, YU.A.; **REPINA, I.A.**
Measuring of atmosphere-sea-land interaction in northern part of Caspian Sea

OA159 KUZMIERCZYK-MICHULEC, J.; **ROZWADOWSKA, A.**
Retrieval of optical properties of the Baltic aerosols - comparison of two methods

OA160 **SHIFRIN, K.S.**; ZOLOTOV, I.G.
A method for determining the wind velocity from lidar measurements of atmospheric aerosol

OA161 **JOST, V.**; SCHULZ, J.
HOAPS: a satellite-derived water balance climatology

OA162 **GOODRICK, S.L.**; BOURASSA, M.A.; LEGLER, D.M.
Impact of surface layer height consideration on air-sea fluxes for the North Atlantic

OA164 **EWALD, S.**; SCHLÜSSEL, P.
Foam coverage and skineffect of the ocean from satellite data

OA165 **COMPAGNUCCI, R.**; SALLES, M.A.
ENSO events impact on the atmospheric circulation and anomalies of the main climatic variables over the southern cone

OA166 **MOAT, B.I.**; YELLAND, M.J.; TAYLOR, P.K.
The impact of airflow distortion on in-situ meteorological wind speed measurements

OA167 KAPALA, A.; MAECHEL, H.
Comparison of surface humidity and air temperature above the oceans from NCEp and COADS data sets

OA168 QUILFEN, Y.; BENTAMY, A.; GRIMA, N.; DELECLUSE, P.
Use of satellite fluxes for ocean modelling

Attend the Poster Session

OA14 Parametrizations in large scale atmospheric models
.2 Major systematic errors in global coupled models

Convener: Stephenson, D.B.
Co-Convener(s): Balmaseda, M.A.
Wednesday, 22 April 1998
Lecture Room: ERATO
Chairpersons: Stephenson, D.B.; Balmaseda, M.A.

09:00 **DIXON, K.W.**; STOUFFER, R.J.
Initialization and climate drift issues found in coupled climate model integrations
09:15 **BOVILLE, B.A.**; GENT, P.R.
Systematic errors in the NCAR Climate System Model: sensitivity to model formulation
09:30 BALMASEDA, M.; ALVES, J.; ANDERSON, D.; SEGSCHNEIDER, J.; STOCKDALE, T.
Model drift in the seasonal predictions at ECMWF
09:45 **PONCIN, CH.**; FICHEFET, TH.; GOOSSE, H.
Sensitivity experiments with a coupled atmosphere-ocean general circulation model
10:00 **KAAS, E.**; GULDBERG, A.
Using tendency errors as additional forcing in a general circulation model
10:15 **LI, Z.X.**; FORICHON, M.
Sensitivity of surface heat flux to physical parameterization in the IPSL couple model
10:30 BREAK
10:45 COVEY, C.; COHEN-SOLAL, E.
The Coupled Model Intercomparison Project
11:00 STEPHENSON, D.B.; **PAVAN, V.**; DOBLAS-REYES, F.J.; BORJARIU, R.
North Atlantic oscillation interannual variability in observations and CMIP coupled GCMS runs
11:15 **LEGUTKE, S.**; VOSS, R.; CUBASCH, U.
A coupled ocean-atmosphere climate model with inhomogeneous gridcell surfaces
11:30 **FILIBERTI, M.-A.**; DUFRESNE, J.-L.
An assessment of the role of the atmosphere in antarctic sea-ice extension in global coupled models
11:45 ROESCH, A.
Observational validation and implementation of modifications of the surface albedo parameterization in the ECHAM4 GCM
12:00 LUNCH
12:00 Business Meetings

Chairperson: Fischer, M.

14:00 **MECHOSO, C.R.**; YU, J.-Y.; MA, C.-C.
Improvements achieved in a coupled GCM obtained by addressing systematic errors in the eastern equatorial Pacific
14:15 **FISCHER, M.**; NAVARRA, A.
Tropical systematic errors of the Giotto model
14:30 DEWITT, D.G.
Sensitivity of the simulated climate in the tropical Pacific to ocean mixing
14:45 COHEN-SOLAL, E.; **LE TREUT, H.**; MUSAT, I.
Analyse of the tropical cold anomaly in the LMD/IPSL coupled model
15:00 **VINTZILEOS, A.**; DUFRESNE, J.-L.; LE TREUT, H.; SADOURNY, R.
Tropical Pacific variability simulated in a one hundred year run of a coupled general circulation model
15:15 END OF SUB-SESSION
Session OA14.03 continues

OA14 Parametrizations in large scale atmospheric models
.3 Sensitivity of radiative perturbations in global coupled models

Convener: Boucher, O.
Wednesday, 22 April 1998
Lecture Room: ERATO
Chairperson: N.N.

15:15 ROECKNER, E.; FEICHTER, J.
Climate response to radiative forcings by greenhouse gases and aerosols (Solicited Paper)
15:45 **VALCKE, S.**; BATHELET, P.; TERRAY, L.
Performance of a global coupled simulation of climate change associated with a doubling in the CO_2 atmospheric concentration
16:00 **RICARD, J.L.**; BARTHELET, P.; TERRAY, L.; VALCKE, S.
First results of a $2XCO_2$ experiment with a global coupled model
16:15 **BONY, S.**; DUFRESNE, J.-L.; FAIRHEAD, L.
An analysis of tropical cloud radiative feedbacks in a coupled ocean-atmosphere model (Solicited Paper)
16:45 **CLEMENT, A.C.**; SEAGER, R.
The tropical oceans and climate change
17:00 END OF SESSION

OA14 Parametrizations in large scale atmospheric models
.3 Sensitivity of radiative perturbations in global coupled models - Poster Session

Convener: Boucher, O.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:30 - 19:00
Poster Area: LES MUSES

OA170C **BERTRAND, C.**; VAN YPERSELE, J.-P.
Sulphate aerosols and transient climate simulations
OA170D **KIRCHNER, I.**; STENCHIKOV, G.L.; GRAF, H.-F.; ROBOCK, A.
The Pinatubo aerosol forcing - estimated with ECHAM4 and the simulated climate response

* not included in the Book of Abstracts

OA

OA15 Clouds and their impact on radiation and photo-chemical processes .1 Remote sensing of clouds and aerosols - Poster Session

Convener: Raschke, E.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: LES MUSES
Chairperson: Raschke, E.
Editor: Raschke, E.

OA293 OA15.1-018 CHEPFER, H.; FLAMANT, P.H.; SAUVAGE, L.; PELON, J.; COUVERT, P.; CHAZETTE, P.; SEZE, G.; GOLOUB, P.; BROGNIEZ, G.; SPINHIRNE, J.; LAVORATO, M.; ANSANA, S.
Validation of semi-transparent cloud POLDER products using lidar measurements

OA294 OA15.1-019 **CREWELL, S.**; LÖHNERT, U.; MEBOLD, H.; SIMMER, C.
Remote sensing of clouds using a groundbased multi-sensor system

OA295 OA15.1-020 CAPDEROU, M.
Determination of the shortwave anisotropic function for clear-sky desert scenes from SCARAB data. Comparison with models issued from other satellite data

OA296 OA15.1-021 KÄRNER, O.
A multidimensional histogram method to analyze AVHRR data

OA297 OA15.1-022 STURNIOLO, O.; PRODI, F.; **MEDINI, R.**; BATTAGLIA, A.
Cloud simulations with randomly oriented axially symmetric hydrometeors

OA298 OA15.1-023 BETANCOR GROTHE, M.; DREYER, M.; BAKAN, S.; COSTANZO, C.
Ground based passive remote sensing of ice clouds with scattered solar radiation inthe near infrared

OA299 OA15.1-024 SMITH, S.A.
The horizontal variability of cirrus clouds

OA15 Clouds and their impact on radiation and photo-chemical processes .1 Remote sensing of clouds and aerosols

Convener: Raschke, E.
Friday, 24 April 1998
Lecture Room: THALIE
Chairperson: Raschke, E.
Editor: Raschke, E.

10:00 OA15.1-001 SOMERVILLE, R.C.J.
Single-column models, ARM observations, and GCM cloud-radiation schemes (Solicited Paper)

10:30 BREAK

Chairperson: Raschke, E.
Editor: Raschke, E.

Simultaneous use of cloud radar and lidar

11:00 OA15.1-002 LIU, C.-L.; ILLINGWORTH, A.J.
Cirrus cloud particle sizing using spaceborne radar/lidar system

11:15 OA15.1-003 RANDEU, W.L.; WITTERNIGG, N.
Outline specifications of ground-based cloud radars and their possible involvement in the Earth radiation mission

11:30 OA15.1-004 WITTERNIGG, N.; RANDEU, W.L.; LEITNER, M.
Scattering calculations for the simulation of radar returns in realistic cloud scenarii

11:45 OA15.1-005 **WEITKAMP, C.**; DANNE, O.; FLINT, H.; LAHMANN, W.; QUANTE, M.; RASCHKE, E.; THEOPOLD, F.A.
95-GHz radar/720-nm lidar simultaneous measurements of clouds at GKSS

12:00 OA15.1-006 **DANNE, O.**; QUANTE, M.; MILFERSTÄDT, D.; RASCHKE, E.; WEITKAMP, C.
Investigations of cloud layer base and top heights from 95 GHz radar reflectivity data

12:15 OA15.1-007 FEIJT, A.; JONGEN, S.; VAN LAMMEREN, A.
Validation of satellite cloud parameter retrieval methods with objective ground based measurements

12:30 OA15.1-008 **DAVIS, A.**; CAHALAN, R.; SPINHIRNE, J.; WINKLER, D.; GERSTL, S.; MELFI, S.H.
Off-beam lidar: an emmerging technique in cloud remote-sensing

12:45 LUNCH

Chairperson: van Lammeren, A.C.
Editor: Raschke, E.

Observations of clouds by satellites and with aircraft

14:00 OA15.1-009 **SPANG, R.**; PREUSSE, P.; FRANZEN, A.; GROSSMANN, K.U.; OFFERMANN, D.
Cloud detection in the upper troposphere and lower stratosphere by CRISTA 1/2

14:15 OA15.1-010 ASTIN, I.
Investigation of the error in derived mean cloud cover for a proposed space-borne cloud radar

14:30 OA15.1-011 **COSTANZO, C.**; BAKAN, S.
Estimation of cirrus and multi-layer cloud parameters from multispectral measurements in the near-infrared

14:45 OA15.1-012 DUROURE, C.; AURIOL, F.; CREPEL, O.; GAYET, J.F.
Microscale inhomogeneities study using high resolution polar nephelometer measurements

15:00 OA15.1-013 **JOLIVET, D.**; PAROL, F.; BURIEZ, J.-C.
On the deviation of the bidirectional reflectance of inhomogeneous clouds from the plane parallel model

15:15 OA15.1-014 **FAURE, T.**; GUILLEMET, B.; ISAKA, H.; EYMARD, L.
Heterogeneity effect on microphysicals retrieval parameters by satellite at different scale

15:30 BREAK

Chairperson: van Lammeren, A.C.
Editor: Raschke, E.

16:00 OA15.1-015 ALBERS, F.; RASCHKE, E.; REUTER, A.; MAIXNER, U.; LEVKOV, L.; SEDNEV, I.
Horizontal inhomogeneities in clouds and their effect of remote particle measurements

16:15 OA15.1-016 **BÖSCH, H.**; FUNK, O.; WAGNER, T.; PLATT, U.; PFEILSTICKER, K.
Clear and cloudy sky case studies of O_4 and oxyge A-band absorptions as seen by GOME

16:30 **FUNK, O.**; VEITEL, H.; PLATT, U.;
OA15.1-017 PFEILSTICKER, K.
Comparison of measured and modeled oxygen A-band high resolution absorption spectra as a test for RT calculations
16:45 Concluding Remarks
17:00 END OF SESSION

OA15 Clouds and their impact on radiation and photo-chemical processes .2 Modelling of cloud systems

Convener: Mölders, N.
Thursday, 23 April 1998
Lecture Room: THALIE
Chairperson: Mölders, N.
Editor: Mölders, N.

11:00 **BICKMEIER, W.**; BORREGO, C.; COUTINHO,
OA15.2-001 M.; ERNST, G.; KUNZ, R.; MOUSSIOPOULOS, N.
The parameterization of the microphysical processes and the radiative transfer inthe mesoscale model MEMO
11:15 **MÖLDERS, N.**; FRIEDRICH, K.; KRAMM, G.
OA15.2-002 On the sensitivity of cloud microphysics to the energy and water fluxes at the interface Earth-atmosphere
11:30 **AHRENS, B.**; KARSTENS, U.; ROCKEL, B.;
OA15.2-003 STUHLMANN, R.
REMO in forecast mode with ice physics in the cloud and in the radiation scheme
11:45 **COHARD, J.-M.**; PINTY, J.-P.
OA15.2-004 Design, tests and first applications of a two-moment warm cloud scheme in a non-hydrostatic model
12:00 **KRISTIANSEN, J.**; KRISTJANSSON, J.E.
OA15.2-005 Shortwave cloud forcing of marine stratocumulus clouds
12:15 **HAASE, G.**; SIMMER, C.
OA15.2-006 A radar simulation model for the validation of mesoscale dynamic models
12:30 **KURZ, C.**; FUNK, O.; VEITEL, H.; PLATT, U.;
OA15.2-007 PFEILSTICKER, K.
Experimentally determined photon pathlength distributions for different meteorological situations
12:45 PFEILSTICKER, K.
OA15.2-008 On the influence of the cloud morphology and inhomogeneities on optical pathlengths and the cloud sky SW-absorption
13:00 END OF SUB-SESSION

Climate Dynamics

Welcomes papers containing original diagnostic, analytical or numerical modelling research on the structure and behaviour of the atmosphere, oceans, cryosphere, biomass and land surface as interacting components of the dynamics of global climate as well as contributions focused on selected aspects of climate dynamics on particular scales of space or time.

OA15 Clouds and their impact on radiation and photo-chemical processes .2 Modelling of cloud systems - Poster Session

Convener: Mölders, N.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: LES MUSES
Chairperson: Kramm, G.
Editor: Mölders, N.

OA300 **KRISTJANSSON, J.E.**; EDWARDS, J.M.;
OA15.2-009 MITCHELL, D.L.
Impact of a new parameterization scheme for non-sperical ice crystals of the climates of two GCMs
OA301 **RAABE, A.**; JAGUSCH, F.; MÖLDERS, N.
OA15.2-010 Different cloud prediction by use of various types of cloud models included in one mesoscale model
OA302 **MELIKECHI, A.**; SCHAYES, G.
OA15.2-011 Diurnal variations in stratocumulus-capped atmospheric boundary layer

OA15 Clouds and their impact on radiation and photo-chemical processes .3 Radiative transfer and budget

Convener: Ohmura, A.
Thursday, 23 April 1998
Lecture Room: THALIE
Chairperson: Ohmura, A.
Editor: Ohmura, A.

14:00 MACKE, A.
OA15.3-001 Monte Carlo radiative transfer calculations for inhomogeneous mixed phase clouds
14:15 **DI GIUSEPPE, F.**; RIZZI, R.
OA15.3-002 Far-infrared scattering effects in cloudy sky
14:30 **HOLLMANN, R.**; MÜLLER, J.; STUHLMANN, R.
OA15.3-003 Radiation budget for BALTEX
14:45 **SZCZAP, F.**; ISAKA, H.; SAUTE, M.
OA15.3-004 The heterogeneity of clouds and their influence on their radiative properties
15:00 **SZCZAP, F.**; ISAKA, H.; SAUTE, M.
OA15.3-005 The anomalous absorption phenomenon of heterogeneous clouds
15:15 **MARSHAK, A.**; DAVIS, A.; WISCOMBE, W.;
OA15.3-006 CAHALAN, R.
Biases in shortwave column absorption in the presence of fractal clouds
15:30 BERGER, F.H.
OA15.3-007 Heating rates in five atmospheric layers for selected cloud cases in Europe
15:45 BURNET, F.; BRENGUIER, J.-L.
OA15.3-008 Validation of droplet spectra and liquid water content measurements
16:00 **REICHARDT, J.**; WEITKAMP, C.; NEIDHART,
OA15.3-009 B.
Optical and geometrical properties of northern midlatitude cirrus clouds observed with a UV raman lidar

16:15 **WILD, M.**; OHMURA, A.
OA15.3-010 The role of the cloud-free atmosphere in the problem of underestimated absorption of solar radiation in GCM atmospheres
16:30 END OF SUB-SESSION

OA15 Clouds and their impact on radiation and photo-chemical processes .3 Radiative transfer and budget - Poster Session

Convener: Ohmura, A.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: LES MUSES
Chairperson: Ohmura, A.
Editor: Ohmura, A.

OA303 DI GIUSEPPE, F.; **MANNOZZI, L.**; RIZZI, R.
OA15.3-011 Cirrus cloud optical properties in the far infrared
OA304 PERSSON, T.
OA15.3-012 Solar radiation climate in Sweden
OA305 KACZOROWSKA, R.; MAGER, P.; FARAT, R.
OA15.3-013 Assessment of Poland overall cloudiness as the reason for the forecasting of possible climate changes

OA15 Clouds and their impact on radiation and photo-chemical processes .4 Photo-chemical processes in clouds - Poster Session

Convener: Flossmann, A.I.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: LES MUSES
Chairperson: Flossmann, A.I.
Editor: Flossmann, A.I.

OA306 OZOLIN, Y.E.; KAROL, I.L.; OZHIGINA,
OA15.4-007 N.A.; ROZANOV, E.V.
Numerical study of chemical species evolution in a convective cloud
OA307 **LANDGRAF, J.**; TRAUTMANN, T.; BRÜHL,
OA15.4-008 C.
Effects of clouds on OH production in multiple cloud layers and broken clouds

OA15 Clouds and their impact on radiation and photo-chemical processes .4 Photo-chemical processes in clouds

Convener: Flossmann, A.I.
Friday, 24 April 1998
Lecture Room: THALIE
Chairperson: Flossmann, A.I.
Editor: Flossmann, A.I.

08:30 LOSNO, R.
OA15.4-001 A model describing trace metals acting as catalyst in a marine cloud
08:45 **GUERINOT, G.**; MARTINERIE, P.; LEGRAND,
OA15.4-002 M.; CAUTENOT, S.
Model of biomass burning plume ageing
09:00 **REESE, A.**; HERRMANN, H.; ERVENS, B.;
OA15.4-003 ZELLNER, R.
Laboratory and modelling studies of troposheric multiphase conversions involving some C_1 and C_2 peroxyl radicals
09:15 **HATZIANASTASSIOU, N.**; FLOSSMANN, A.I.;
OA15.4-004 WOBROCK, W.
Study of the indirect effect of aerosol particles during repeated cloud cycles
09:30 **ARIYA, P.A.**; SANDER, R.; CRUTZEN, P.J.
OA15.4-005 Sulfur (IV) to sulfur (VI) dark conversion mechanisms: a modelling study
09:45 **TRAUTMANN, T.**; LANDGRAF, J.; PODGORNY,
OA15.4-006 J.
Actinic flux computation for finate and broken clouds in absorbing and scattering atmospheres
10:00 END OF SUB-SESSION

OA16 Interaction of biogenic and anthropogenic compouds in the Mediterranean and its influence on atmospheric chemistry I

Convener: Seufert, G.
Co-Convener(s): Hewitt, N.
Monday, 20 April 1998
Lecture Room: CLIO
Chairperson: Seufert, G.
Editor: Seufert, G.

14:00 **GUENTHER, A.**; BAUGH, B.; GREENBERG, J.;
OA16-001 HARLEY, P.; KLINGER, L.
Land use change and biogenic hydrocarbon emissions from Mediterranean and Savanna landscapes (Solicited Paper)
14:30 LOPEZ, A.; ANASTASIO, N.; ATTIE, J.L.;
OA16-002 BRUSTET, J.M.; DURAND, P.; FONTAN, J.; PONT, V.
Study of matter and energy transfers by airplane measurements during the BEMA campaign (Burriana - Spain)
14:45 **CIESLIK, S.**; DUTAUR, L.; LARSEN, B.;
OA16-003 DARMAIS, S.; SIMON, V.; TORRES, L.
Comparison of two flux measurement techniques for biogenically emitted VOC
15:00 **JENSEN, N.O.**; COURTNEY, M.;
OA16-004 HUMMELSHOEJ, P.; CHRISTENSEN, C.S.; LARSEN, B.R.
A REA system for measurements of VOC fluxes
15:15 CICCIOLI, P.; SEUFERT, G.; VALENTINI, R.
OA16-005 Assessment of primary and secondary biogenic compounds in emission fluxes from an orange field near Burriana, Spain
15:30 **SCHAAB, G.**; LENZ, R.; SHARMA, M.
OA16-006 A temporal-spatial solar radiation model to drive biogenic emissions from sparse vegetation and over complex terrain
15:45 **KESSELMEIER, J.**; STAUDT, M.; WOLF, A.;
OA16-007 SEUFERT, G.; BERTIN, N.; HANSEN, U.; CICCIOLLI, P.; BRANCALEONI, E.; FRATTONI, M.; TORRES, L.; LUCHETTA, L.; SIMON, V.
Enclosure approaches for the determination of terpenoid emissions from vegetation
16:00 **HANSEN, U.**; SEUFERT, G.
OA16-008 Terpenoid emission from Citrus Sinensis (L.) Osbeck under drought stress

16:15 **STAUDT, M.**; BERTIN, N.; FRENZEL, B.; SEUFERT, G.
OA16-009 Seasonal changes in amount and composition of monoterpenes emited by young Pinus pinea trees
16:30 END OF PART I
17:00 Opening
19:30 Reception

OA16 Interaction of biogenic and anthropogenic compouds in the Mediterranean and its influence on atmospheric chemistry Ii

Convener: Seufert, G.
Co-Convener(s): Hewitt, N.
Tuesday, 21 April 1998
Lecture Room: CLIO
Chairperson: Ciccioli, P.
Editor: Ciccioli, P.

08:30 **CUVELIER, C.**; THUNIS, P.
OA16-010 Application of the mesoscale meteorology-chemistry model TVM-LCC/RACM to the study of biogenic emissions
08:45 **HJORTH, J.**; HORIE, O.; JENSEN, N.R.; LARSEN, B.R.; NEEB, P.; PLAGENS, H.; OA16-011 SPITTLER, M.; RUPPERT, L.; VAN DINGENEN, R.; VIRKKULA, A.; WINTERHALTER, R.; WIRTZ, K.
A smog chamber study on the formation of aerosol and gaseous products by the photo-oxidation of monoterpenes
09:00 **BONSANG, B.**; KANAKIDOU, M.; MIHALOPOULOS, N.; KAVOURAS, H.; OA16-012 STEPHANOU, E.; PIO, C.; NUNES, T.; CELIA, A.; GOMES, P.; SEAKINS, P.; LEWIS, A.; HARISSON, D.; BOISSARD, C.; GROS, V.; SANAK, J.
Field observation and modelling of the formation of biogenic organic aerosols in Mediterranean areas
09:15 **SIMEONIDIS, P.**; SANIDA, G.; ZIOMAS, I.; KOURTIDIS, K. OA16-013 A biogenic VOC emissions inventory for Greece
09:30 **LAURILA, T.**; HAKOLA, H.; LINDORS, V.
OA16-014 Biogenic VOCs in continental northern Europe - concentrations and photochemistry
09:45 HEIDEN, A.C.; KLEY, D.; SCHUH, G.; **WILDT, J.** OA16-015 Monoterpene emissions from rape: limitation by DMAPP/IPP availability

10:00 Poster Summaries

OA16-016 STEINBRECHER, R.; SEUFERT, G.; DUERR, M.; HAUFF, K.; ROESSLER, J.
Monoterpene emission from soils in orange plantations in the Valencian citrus belt, Spain
OA16-017 MANES, F.; SEUFERT, G.; VITALE, M.; DONATO, E.; CSIKY, O.; SILLI, V.
Ecophysiological characterization of Citrus Sinensis (L.) Osbeck and relationships with type and amount of biogenic emissions
OA16-018 **STAUDT, M.**; WOLF, A.; KESSELMEIER, J.
Effect of light and temperature on the exchange of gaseous formic and acetic acid from orange foliage (Citrus Sinensis L.)
OA16-019 **ALVES, C.**; PIO, C.; DUARTE, A.
The organic composition of air particulate matter from semi-rural and forest Portuguese areas
OA16-020 **HAKOLA, H.**; RINNE, J.; LAURILA, T.
Seasonal variation of the VOC emission rates of boreal broad-leafed trees
OA16-021 **RINNE, J.**; HAKOLA, H.; LAURILA, T.
Vertical fluxes of monoterpenes above a Scots pine in the boreal vegetation zone
OA16-022 **WINTERHALTER, R.**; NEEB, P.; MOORTGAT, G.K.
Aerosol formation in gas-phase monoterpene ozonolysis at near-atmospheric concentration
OA16-023 **RAPPENGLÜCK, B.**; FABIAN,P.
Observations of biogenic and anthropogenic NMHC in Athens during the PAUR campaign
OA16-024 **WILSKE, B.**; KESSELMEIER, J.
The C_1- and C_2- organic acid and aldehyd exchange of lichens in the boreal zone of Europe
OA16-025 **BOMBOI-MINGARRO, M.T.**; BRAVO, I.; COSIN, S.; GARCIA, S.; PEREZ-PASTOR, R.; PEREZ, M.A.; SANZ, M.J.
Seasonal changes in AVOCs-BVOCs and volatile carbonyl air concentrations in the Castellon plain during 1997
OA16-026 **ECKERT, S.**; STÜDEMANN, O.
A conceptional model to assess biogenic and anthropogenic ozone forming potentials for Mecklenburg-Vorpommern, Germany
10:30 END OF SESSION

OA16 Interaction of biogenic and anthropogenic compouds in the Mediterranean and its influence on atmospheric chemistry - Poster Session

Convener: Seufert, G.
Co-Convener(s): Hewitt, N.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: LES MUSES
Chairperson: Seufert, G.
Editor: Seufert, G.

OA329 OA16-016 STEINBRECHER, R.; SEUFERT, G.; DUERR, M.; HAUFF, K.; ROESSLER, J.
Monoterpene emission from soils in orange plantations in the Valencian citrus belt, Spain
OA330 OA16-017 MANES, F.; SEUFERT, G.; VITALE, M.; DONATO, E.; CSIKY, O.; SILLI, V.
Ecophysiological characterization of Citrus Sinensis (L.) Osbeck and relationships with type and amount of biogenic emissions
OA331 OA16-018 **STAUDT, M.**; WOLF, A.; KESSELMEIER, J.
Effect of light and temperature on the exchange of gaseous formic and acetic acid from orange foliage (Citrus Sinensis L.)
OA332 OA16-019 **ALVES, C.**; PIO, C.; DUARTE, A.
The organic composition of air particulate matter from semi-rural and forest Portuguese areas
OA333 OA16-020 **HAKOLA, H.**; RINNE, J.; LAURILA, T.
Seasonal variation of the VOC emission rates of boreal broad-leafed trees
OA334 OA16-021 **RINNE, J.**; HAKOLA, H.; LAURILA, T.
Vertical fluxes of monoterpenes above a Scots pine in the boreal vegetation zone

OA

OA335 **WINTERHALTER, R.**; NEEB, P.;
OA16-022 MOORTGAT, G.K.
Aerosol formation in gas-phase monoterpene ozonolysis at near-atmospheric concentration

OA336 **RAPPENGLÜCK, B.**; FABIAN,P.
OA16-023 Observations of biogenic and anthropogenic NMHC in Athens during the PAUR campaign

OA337 **WILSKE, B.**; KESSELMEIER, J.
OA16-024 The C_1- and C_2- organic acid and aldehyd exchange of lichens in the boreal zone of Europe

OA338 **BOMBOI-MINGARRO, M.T.**; BRAVO, I.;
OA16-025 COSIN, S.; GARCIA, S.; PEREZ-PASTOR, R.; PEREZ, M.A.; SANZ, M.J.
Seasonal changes in AVOCs-BVOCs and volatile carbonyl air concentrations in the Castellon plain during 1997

OA339 **ECKERT, S.**; STÜDEMANN, O.
OA16-026 A conceptional model to assess biogenic and anthropogenic ozone forming potentials for Mecklenburg-Vorpommern, Germany

OA17 Climate variability: models and observations (co-sponsored by SE)

Convener: Komen, G.J.
Tuesday, 21 April 1998
Lecture Room: EUTERPE
Co-sponsored by: Euroclivar
Chairperson: Komen, G.J.

14:00 LATIF, M.
European and Atlantic climate variability (Solicited Paper)
14:30 SLINGO, J.M.
Scale interactions and global teleconnection patterns (Solicited Paper)
15:00 JOHNS, T.C.
Climate change prediction and detection using coupled climate models within Europe (Solicited Paper)
15:30 DUPLESSY, J.-C.
Climate variability deduced from the modern and paleoclimatic records (Solicited Paper)
16:00 LE TREUT, H.
Climate models: current uncertainties and future prospects (Solicited Paper)
16:30 END OF SUB-SESSION

OA17 Climate variability: models and observations (co-sponsored by SE) .1 West African monsoon studies

Convener: Thorncroft, C.D.
Monday, 20 April 1998
Lecture Room: EUTERPE
Chairperson: Thorncroft, C.D.

08:30 THORNCROFT, C.
Introduction
08:45 POCCARD, I.; JANICOT, S.; RICHARD, Y.
Interannual variability of SST - tropical circulation relationship on the period 1968-1997: focus on West Africa
09:00 TRZASKA, S.; JANICOT, S.; FONTAINE, B.
Numerical study of the impact of ENSO and decadal scale SST variability on Sahel rainfall
09:15 XUE, Y.; CLARK, D.B.; HARDING, R.J.
Mechanisms of West African monsoon and land surface process interaction
09:30 **FINK, A.H.**; SPETH, P.
Variability of the West African monsoon on intraseasonal and interannual time scales
09:45 **EVANS, A.D.L.**; HARRISON, M.S.J.
Simulation and prediction of the west African monsoon
10:00 COOK, K.H.
Large-scale dynamics and the West African monsoon
10:15 THORNCROFT, C.; BLACKBURN, M.
Maintenance of the African easterly jet
10:30 BREAK

Chairperson: Thorncroft, C.D.

11:00 **PYTHAROULIS, I.**; THORNCROFT, C.D.
On the existence of warm core African easterly waves
11:15 **XU, K.-M.**; RANDALL, D.A.
Roles of cumulus convection in the Atlantic easterly waves
11:30 **DIONGUE, A.**; LAFORE, J.P.; REDELSPERGER, J.L.
Numerical study of interactions between a squall-line and an easterly wave
11:45 PARKER, D.
Propagation of the mesosclae storm flow of West African squall lines
12:00 TAUPIN, J.-D.
Decadal sahelian rainfall estimation over an area of 1 degree square: characterization of the "Ground Truth" according to the raingauge network density
12:15 **MATHON, V.**; LAURENT, H.
Automatic tracking of West African cloud clusters
12:30 JANICOT, S.; DIEDHIOU, A.
Interannual variability of intraseasonal and synoptic weather systems over West Africa on the period 1968-1997
12:45 **LEBEL, T.**; AMANIL, A.; LE BARBE, L.
Rainfall variability in the Sahel: a matter of scales
13:00 END OF SUB-SESSION
17:00 Opening
19:30 Reception

OA17 Climate variability: models and observations (co-sponsored by SE) .1 West African monsoon studies - Poster Session

Convener: Thorncroft, C.D.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: LES MUSES
Chairperson: Thorncroft, C.D.

OA171 **DELCLAUX, F.**; POLCHER, J.; LEBEL, T.
Rain event climatology in West Africa: comparison from in situ and GCM outputs

OA173 TAUPIN, J.-D.
Characterization of sahelian rainfall spatial variability at a scale between 1 and 10 kilometres: the ARCOL experiment (region of Niamey, Niger)

OA174 THORNCROFT, C.
The West African Monsoon Project *

OA175 DIEDHIOU, A.; JANICOT, S.; VILTARD, A.; DE FELICE, P.; LAURENT, H.
Different regimes of easterly waves over West Africa and tropical Atlantic (1979-1995)

OA17 Climate variability: models and observations (co-sponsored by SE) .2 Natural climate variability on the basis of past observations - Poster Session

Convener: Duplessy, J.-C.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: LES MUSES

OA177 **MIHAJLOVIC, LJ.**; MIHAJLOVIC, S.; ORBADOVIC, M.
Dynamically characteristics of the atmosphere parameters during intensive magnetic storms

OA178 OTTERMAN, J.; ATLAS, R.; ANGELL, J.; ANYAMBA, E.; ARDIZZONE, J.; STARR, D.; SUSSKIND, J.; TERRY, J.
1997 temperatures are highest on record: should it be atributed to the global warming?

OA179 **DACAMARA, C.C.**; TRIGO, R.M.
Winter precipitation in Portugal: trends and variability using a linear model based on weather types

OA180 VACCARO, L.; SIANI, A.M.; PILOZZI, A.; MANGIANTI, F.; PALMIERI, S.
An analysis of Italian long temperature and precipitation time series

OA181 **FAUQUETTE, S.**; GUIOT, J.; SUC, J.-P.
Pliocene warmth in Mediterranean areas: reconstruction from pollen data

OA182 HEJKRLMK, L.
Persistency of lunar signal in a precipitation data series

OA183 **RASPOPOV, O.M.**; SHUMILOV, O.I.; KOCHEGURA, V.V.; DERGACHEV, V.A.; VAN GEEL, B.; VAN DER PLICHT, J.; RENSSEN, H.
External forcing of terrestrial climate during the Holocene around 2800 BP

OA184 GIMENO, L.; **RUA, A.**; DE LA TORRE, L.; GONZALEZ, C.
Climate variability in Orense (Spain) in the last 300 years

OA185 IVANOVA, E.V.; IVANOV, V.V.
The fine structure of the spectral maxima of variations of sea level, air pressure and air temperature for periods from several days to several months

OA186 BRUZEK, V.
Some causes of long-term meteorological element changes and their further development *

OA17 Climate variability: models and observations (co-sponsored by SE) .2 Natural climate variability on the basis of past observations I

Convener: Duplessy, J.-C.
Thursday, 23 April 1998
Lecture Room: EUTERPE
Chairperson: N.N.

14:00 PELTIER, W.R.; SAKAI, K.
Dansgaard-Oeschger oscillations: a hydrodynamic theory (Solicited Paper)

14:30 **REICHERT, B.K.**; BENGTSSON, L.
Combined dynamical and statistical modelling for the interpretation of in situ paleo records

14:45 GRIEGER, B.
Glacial Atlantic surface temperatures based on new data and a semi-inverse ocean model

15:00 WYPUTTA, U.
Sensitivity of the atmospheric general circulation model ECHAM 3 to different glacial sea surface temperatures

15:15 **LERASLE, N.**; DUPLESSY, J.C.
Sea surface salinity reconstruction of the Indian Ocean during thelast glacial maximum (about 18,000 yr B.P.)

15:30 **CAMPIN, J.-M.**; FICHEFET, T.; DUPLESSY, J.-C.
A GCM simulation of the ^{14}C distribution in the glacial ocean

15:45 **TARASOV, P.E.**; GUIOT, J.
18 ka biomes reconstructed from pollen and plant macrofossil data from northern Eurasia: palaeoclimatic interpretation

16:00 **PINOT, S.**; RAMSTEIN, G.; MARSIAT, I.; PEYRON, O.; GUIOT, J.; DE VERNAL, A.; SEIDOV, D.
Last glacial maximum model/data comparison over Europe

16:15 **KISSEL, C.**; LAJ, C.; ELLIOT, M.; LABEYRIE, L.
Rapid climatic variations and magnetic mineralogy changes in North Atlantic sediments

16:30 **LAJ, C.**; KISSEL, C.; AUFFRET, G.; VANGRIESHEM, A.
Changes in the strength of the Iceland-Scotland overflow water in the lat 200,000 years: evidence from magnetic anisotropy analysis of core SU90-33

16:45 **VIMEUX, F.**; MASSON, V.; JOUZEL, J.; STIEVENARD, M.; PETIT, J.R.
Variations of the deuterium excess over the last climatic cycle in the Vostok ice core

17:00 END OF PART I

Journal of Atmospheric Chemistry

an official journal of the EGS for the publication of your original research

OA17 Climate variability: models and observations (co-sponsored by SE) .2 Natural climate variability on the basis of past observations II

Convener: Duplessy, J.-C.
Friday, 24 April 1998
Lecture Room: EUTERPE
Chairperson: Grieger, B.

09:00 **ROUSSEAU, D.D.**; PREECE, R.; LIMONDIN-LOZOUET, N.
Late glacial and holocene climatic history in Great Britain from land snail assemblages
09:15 COLIN, C.; KISSEL, C.; BLAMART, D.; TURPIN, L.
Rapid climatic events and Asian monsoon intensity: magnetic and geochemical results from the Bay of Bengal and the Andaman Sea
09:30 **MARTI, O.**; BRACONNOT, P.; JOUSSAUME, S.
African and Asian monsoon chanages at 6000 BP inferred from a full coupled ocean-atmosphere model
09:45 **PEYRON, O.**; BONNEFILLE, R.; JOLLY, D.; GUIOT, J.
Climatic reconstruction in east Africa for 6000 years b.p. from Pollen data
10:00 MÖRNER, N.-A.
Climatic changes in the last millennium
10:15 **JACOBEIT, J.**; BECK, C.; PHILIPP, A.
North-Atlantic-European atmospheric circulation changes between the early instrumentel period and the recent century
10:30 BREAK

Chairperson: N.N.

11:00 WEBER, S.L.; **SHABALOVA, M.V.**
Seasonality of low-frequency variability in early-instrumental temperatures
11:15 BORN, K.
Changes in baroclinicity and synoptic activity on the northern hemisphere from the 1960s to the present as seen by distinct data sets
11:30 **BASNETT, T.A.**; RAYNER, N.A.; PARKER, D.E.
GMSLP3: a global mean sea level pressure dataset
11:45 **QIAN, B.**; CORTE-REAL, J.; XU, H.
Nonseasonal variability of large-scale precipitation over Europe
12:00 **RAYNER, N.A.**; SMITH, T.M.
Global and regional optimal averages and associated error estimates of annual observed surface temperature anomaly
12:15 SCHMITT, F.
Multifractal "nautral climate variability"
12:30 END OF SESSION

Attend the Poster Session

OA17 Climate variability: models and observations (co-sponsored by SE) .3 Climate variability: time scale interactions I

Convener: Slingo, J.M.
Wednesday, 22 April 1998
Lecture Room: EUTERPE
Chairperson: Slingo, J.M.

Coupled processes and global teleconnections

08:30 BLADE, I.
The influence of midlatitude ocean/atmosphere coupling on the low-frequency variability of a GCM with tropical SST forcing (Solicited Paper)
09:00 **DOMMENGET, D.**; LATIF, M.
Time scale interactions of SST variability in different GCM simulations
09:15 **KATTENBERG, A.**; DRIJFHOUT, S.S.
The role of the oceans in coupled model climate variability
09:30 **NORTON, W.A.**; JEWSON, S.P.; SUTTON, R.T.; JONES, C.G.
On the influence of North Atlantic SST anomalies on the atmosphere
09:45 **MARTINEU, C.**; PARÉY, S.
Relations between NAO, PNA and ENSO oscillations in seasonal winter simulations with four AGCMs
10:00 MARQUET, P.
Seasonal forecasts with a coupled AOGCM
10:15 **AUAD, G.**; MILLER, A.J.; WHITE, W.B.
Simulation of interdecadal heat storages and heat budgets in the upper 400 m of the Pacific Ocean
10:30 JONES, C.G.; THORNCROFT, C.D.
Assessing the influence of ENSO forcing on synoptic activity in the tropical Atlantic

Stability and variability of the climate system

10:45 BATES, J.R.
A dynamical stabilizer in the climate system: a mechanism suggested by a simple model (Solicited Paper)
11:15 DRIJFHOUT, S.; **HAARSMA, R.J.**
The influence of solar variability on the variability of the climate system
11:30 PELLETIER, J.D.
Natural climate variability on all time scales from a stochastic atmosphere-ocean model
11:45 **SCHÄR, C.**; LÜTHI, D.; BEYERLE, U.; HEISE, E.
The soil-precipitation feedback: a study with a regional climate model
12:00 LUNCH
12:00 Business Meetings

Chairperson: Bladé, I.

Scale interactions and ENSO dynamics

14:00 VAN OLDENBORGH, G.J.
Tracking down the causes of the 1997 El Nino with an adjoint OGCM

14:15 BALMASEDA, M.; ALVES, J.; ANDERSON, D.; FERRANTI, L.; SEGSCHNEIDER, J.; STOCKDALE, T.
Do westerly wind bursts limit ENSO predictability?
14:30 **VIALARD, J.**; DELECLUSE, P.
Vesterly wind bursts and trigering of ENSO
14:45 **BENESTAD, R.E.**; SUTTON, R.T.; ANDERSON, D.L.T.
Intraseasonal Kelvin waves in the tropical Pacific
15:00 **FINK, A.H.**; SPETH, P.; VINCENT, D.G.; SCHRAGE, J.M.
High and low frequency intraseasonal variance of OLR on annual and ENSO time scales
15:15 **SLINGO, J.M.**; ROWELL, D.P.; SPERBER, K.R.
On the predictability of interannual variations in the activity of the Madden Julian Oscillation
15:30 **GUALDI, S.**; NAVARRA, A.; TINARELLI, G.
The interannual variability of the Madden-Julian oscillation in an ensemble of GCM experiments
15:45 **VAN DER VAART, P.C.**; DIJKSTRA, H.A.; JIN, F.F.
The Pacific cold tongue and the ENSO mode in a fully coupled Zebiak-Cane model
16:00 **BOULANGER, J.-P.**; MENKES, C.
On long equatorial wave reflection
16:15 **RAYNAUD, S.**; SPEICH, S.; MADEC, G.
Interannual variability of the ocean-atmosphere system through global general circulation model results: the Pacific Ocean
16:30 END OF PART I

OA17 Climate variability: models and observations (co-sponsored by SE) .3 Climate variability: time scale interactions - Poster Session

Convener: Slingo, J.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: LES MUSES

OA187 **CASTANHEIRA, J.M.**; DACAMARA, C.C.; ROCHA, A.
Global circulation patterns associated with atmospheric forcing by sea surface temperature
OA188 **ROCHA, A.**; BELO, M.
The ENSO signature on winter rainfall over the Iberian Peninsula
OA189 **ALEXEEV, V.A.**; BATES, J.R.
Sensitivity of the climate of a GCM to the boundary layer parameterizations
OA190 **LORANT, V.**; ROYER, J.-F.
Sensitivity to resolution studied with a variable horizontal resolution global circulation model
OA191 **PRIGANCOVA, A.**; PULAKOS, C.; PETROPOULOS, B.
Some quantitative signatures of climate variability on time scales of solar forcing
OA192 KURGANSKY, M.V.; PISNICHENKO, I.A.
Modified Ertel's potential vorticity as a climate variable
OA193 CABOS, W.; ORTIZ BEVIA, M.J.; **JIMENEZ, J.J.**
Study of scale interaction in the anomalies equatorial Atlantic
OA194 **VAN EIJK, M.**; BURGERS, G.; VAN OLDENBORGH, G.J.
The implementation of a nonlocal diffusion model in the HOPE OGCM
OA195 RAZORENOVA, O.A.
Variability and interaction of the global atmosphere circulation forms over the Atlantic and European sectors of the northern hemisphere in winter
OA196 **MENDONCA LEITE, S.**; ANDRADE SANTOS, J.
Contribution to the analysis of Iberian Peninsula climate variability
OA197 PEREIRA, M.G.; DACAMARA, C.C.
Coupled modes of variability between surface temperature in Portugal, 500 hPa height and sea-level pressure
OA198 **CARAMELO, L.**; MANSO ORGAZ, M.D.
A estudyn of hydrologic variability of Douro river basin
OA199 TSCHUCK, P.; ARPE, K.
A climatology of onset dates of the Asian summer monsoon
OA200 CARL, P.
A generically intraseasonal southern oscillation of the atmosphere-land system?
OA201 **TRZASKA, S.**; RICHARD, Y.; ROUCOU, P.
Numerical study of the impact of first eigenmodes of SST variability on tropical rainfall
OA201A TIBALDI, S.; QUADRELLI, R.; **CESARI, V.**
Influence of SST on observed midlatitude blocking variability

OA17 Climate variability: models and observations (co-sponsored by SE) .3 Climate variability: time scale interactions II

Convener: Slingo, J.M.
Thursday, 23 April 1998
Lecture Room: EUTERPE
Chairperson: Fink, A.

European climate and the NAO

08:45 **CESARI, V.**; TIBALDI, S.; TOSI, E.
Blocking simulation in general circulation models with different resolutions
09:00 **MICHELANGELI, P.-A.**; VAUTARD, R.
The dynamics of Euro-Atlantic blocking onsets
09:15 BARTHOLY, J.; PONGRACZ, R.
Comparing signals of ENSO and NAO for selected regions of the northern hemisphere
09:30 **WEBER, R.O.**; STEFANICKI, G.; TALKNER, P.
Influence of NAO index to synoptic weather situation over Switzerland
09:45 **PIRAZZOLI, P.A.**; TOMASIN, A.
The recent abatement of easterly winds in the northern Adriatic

* not included in the Book of Abstracts

Monsoons

10:00 **ANNAMALAI, H.**; SLINGO, J.M.
The interaction between intraseasonal and interannual variability and its relevance for the seasonal predictability of the Asian summer monsoon (Solicited Paper)
10:30 BREAK

Chairperson: Slingo, J.M.

11:00 **CHAUVIN, F.**; ROYER, J.-F.; STEPHENSON, D.B.
Role of Indian Ocean SSTs on the Asian summer monsoon
11:15 ARPE, K.; TSCHUCK, P.
Impact of SST forcing on the monsoons of 1987/88
11:30 **SCONCIA, B.**; HOSKINS, B.
Intraseasonal variability of the Indian monsoon
11:45 **GIORGETTA, M.A.**; BENGTSSON, L.; ARPE, K.
QBO signals in the monsoon system in GCM experiments
12:00 **MAYNARD, K.**; POLCHER, J.; LAVAL, K.
The role of land surface processes in interannual variability of the LMD GCM
12:15 CARL, P.
On the modal structure of Indian monsoon onset
12:30 JONES, C.; WALISER, D.E.; SCHEMM, J.-K.E.; LAU, W.K.M.
Prediction skill of the Madden-Julian oscillation in dynamical and statistical models*
12:45 END OF SUB-SESSION

OA17 Climate variability: models and observations (co-sponsored by SE)
.4 Clouds in the climate system: observations and modelling

Convener: Desbois, M.
Monday, 20 April 1998
Lecture Room: EUTERPE
Chairperson: Le Treut, H.
Editor: Desbois, M.

14:00 **BERGER, F.H.**; ROCKEL, B.
OA17.4-001 Comparisons of model generated fluxes with satellite inferred fluxes
14:15 **SEZE, G.**; VANBAUCE, C.; BURIEZ, J.C.; OA17.4-002 PAROL, F.; COUVERT, P.
Cloud cover observed simultaneously from POLDER and METEOSAT
14:30 PAWLOWSKA, H.; BRENGUIER, J.-L.; OA17.4-003 SCHUELLER, L.
Cloud microphysical and radiative properties
14:45 PINCUS, R.; MCFARLANE, S.A.; KLEIN, S.A.
OA17.4-004 Cloud type and horizontal variability in marine boundary layers
15:00 **MATHIEU, A.**; SEZE, G.; GUERIN, C.; DUPUIS, H.; WEILL, A. OA17.4-005
Convective meso-scale boundary layer clouds structures during the SEMAPHORE campaign
15:15 STANWAY, J.D.; LOVEJOY, S.; SCHERTZER, D.
OA17.4-006 Direct evidence for cloud cascade dynamics from planetary scales to 1 km
15:30 WEBB, M.J.
OA17.4-007 Assessment of the simulation of clouds in the Hadley Centre Climate Model using satellite observations
15:45 **BAUER, H.-S.**; BENGTSSON, L.; FEICHTER, J.; OA17.4-008 STENDEL, M.
Validation of cloud systems in the general circulation model ECHAM4 by using the nudging technique
16:00 **GELENNE, P.**; RICARD, J.L.
OA17.4-009 Bomex 1D intercomparison: impact of the Parametrization of the shallow convection in the surface fluxes
16:15 **DALPANE, E.**; MANNOZZI, L.; TOSI, E.; RIZZI, R. OA17.4-010
A new parameterization of cloud properties and comparison of simulated and measured HIRS cloudy radiances
16:30 **DELOBBE, L.**; GALLEE, H.
OA17.4-011 Simulation of marine stratocumulus evolution observed during ASTEX: comparison with observations and sensitivity studies
16:45 **XU, K.-M.**; RANDALL, D.A.
OA17.4-012 A sensitivity study of radiative-convective equilibrium in the tropics with a convection-resolving model
17:00 **TOMPKINS, A.M.**; CRAIG, G.C.
OA17.4-013 Timescales of variability in tropical radiative-convective equilibrium
17:15 END OF SUB-SESSION
17:00 Opening
19:30 Reception

OA17 Climate variability: models and observations (co-sponsored by SE)
.4 Clouds in the climate system: observations and modelling - Poster Session

Convener: Desbois, M.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: LES MUSES
Chairperson: Le Treut, H.
Editor: Desbois, M.

OA202 **DOUTRIAUX-BOUCHER, M.**; SEZE, G.
OA17.4-014 Comparison of ISCCP C_1 and D1 cloud datasets
OA203 **KERAMITSOGLOU, I.**; HARRIES. J.E.; OA17.4-015 FOOT, J.S.
Studies of upper tropospheric humidity using airborne in-situ sensors
OA204 **BIBIKOVA, T.N.**; ZHURBA, E.V.
OA17.4-016 Cloud fields dynamics above the Crimea
OA205 MÄKELÄ, J.M.; AALTO, P.; POHJA, T.; OA17.4-017 HAATAJA, J.; HARI, P.; **VESALA, T.**; BUZORIUS, G.; RANNIK, U.; KULMALA, M.
Nanoparticle formation events at a boreal forest site
OA206 KARAVAEV, D.; SHCHUKIN, G.; OA17.4-018 STASENKO, V.
Multiwave active-passive sounding of atmospheric moisture

OA17 Climate variability: models and observations (co-sponsored by SE) .5 Prediction and detection of anthropogenic climate change

Convener: Johns, T.C.
Tuesday, 21 April 1998
Lecture Room: EUTERPE
Chairperson: Johns, T.C.

08:30 **CROSSLEY, J.F.**; POLCHER, J.
Quantifying the uncertainties due to landsurface schemes in climate change prediction
08:45 **GEDNEY, N.**; VALDES, P.J.
Significance of rooting depth on climate change prediction
09:00 **DOUVILLE, H.**; PLANTON, S.; ROYER, J.-F.; KERGOAT, L.; BETTS, R.
Regional impacts of the vegetation feedbacks in doubled CO_2 climate experiments
09:15 **PAWSON, S.**; KODERA, K.; ET AL.
Performance of current climate-middle atmosphere models: results from the GRIPS initiative
09:30 **KECKHUT, P.**; SCHMIDLIN, F.J.; HAUCHECORNE, A.; CHANIN, M.L.
Trend estimates from US rocketsonde stations at low latitudes (8°S-34°N), taking into account instrumental changes and natural variability
09:45 BARFRED, M.
Detecting external forcings of the atmosphere using the ERA data set
10:00 **DE F. FORSTER, P.M.**; CHRISTIDIS, N.
The effect of uncertainties in radiative forcing on surface temperature trend predictions
10:15 PELLETIER, J.D.
Testing for global warming against stationary natural climate variability
10:30 BREAK

Chairperson: Johns, T.C.

11:00 MATYASOVSZKY, I.
Estimating climate trends by nonparametric regression
11:15 **STENDEL, M.**; BENGTSSON, L.
Recent temperature trends from surface observations, satellite data, reanalysis and GCMs
11:30 **SEXTON, D.M.H.**; FOLLAND, C.K.
Comparison of atmosphere model and coupled model climate change detection estimates
11:45 **BOVILLE, B.A.**; KIEHL, J.T.; MEEHL, G.A.; SOLOMON, S.; PORTMANN, R.
Response of the NCAR Climate System Model to changing greenhouse gases
12:00 **CORTI, S.**; MOLTENI, F.
Variations in hemispheric air-surface temperature associated with large scale flow patterns
12:15 **DUBROVSKY, M.**; HUTH, R.
Circulation modes and their interdiurnal variability in the ECHAM GCM
12:30 **ULBRICH, U.**; CHRISTOPH, M.
Simulated changes in baroclinic wave activity over the Atlantic: a NAO variability effect
12:45 **COLLINS, M.**; TETT, S.F.B.
Possible changes in El Nino/southern oscillation in a warmer climate
13:00 END OF SUB-SESSION

OA17 Climate variability: models and observations (co-sponsored by SE) .5 Prediction and detection of anthropogenic climate change - Poster Session

Convener: Johns, T.C.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: LES MUSES

OA208 **KALVOVA, J.**; JURECKOVA, J.; PICEK, J.
Nonparametric test of Ar order with application to the GCM-simulated and measured air temperatures
OA209 **FERRARESE, S.**; ALBERTO, D.; CASSARDO, C.; LONGHETTO A.
A study for the identification of CO_2 source areas
OA210 RIVIN, I.
A simplified 3D atmospheric model of relevance to interannual and interdecadal climate variability in the Pacific
OA211 BETHOUX, J.P.; GENTILI, B.
Mediterranean Sea: increase in greenhouse effect, air and sea temepratures and freshwater deficit
OA212 LOWE, J.A.; GREGORY, J.M.
Sea level rise: HadCM2 model predictions
OA213 **DURMAN, C.F.**; GREGORY, J.M; GEORGE, S.E.; HENNESSY, K.J.
Changes in extreme daily precipitation by general circulation models under scenarios of increased CO_2 concentration
OA214 KHUNDZHUA, G.G.; ANDREEV, E.G.; AKSENOV, V.N.; **KARAVAEVA, E.V.**; SMIRNOVA, YU.G.
Whether the global warming can be avoided according to the "iron theory" of Dr. J. Martin?
OA215 **POLCHER, J.**; CROSSLEY, J.F.
The impact of a complex land-surface scheme on the results of a climate change simulation
OA216 FAIRHEAD, L.; DUFRESNE, J.-L.; LETREUT, H.; LI, L.
Climate change due to a CO_2 increase as simulated by the IPSL coupled model

OA18 Heterogeneous and homogeneous chemistry of reactive halogen compounds in the lower troposphere (co-sponsored by ST) I

Convener: Platt, U.
Co-Convener(s): Moortgat, G.K.
Thursday, 23 April 1998
Lecture Room: CLIO
Chairperson: Herrmann, H.

Field measurements

14:00 BARRIE, L.A.
An overview of observations related to polar tropospheric ozone depletion chemistry (Solicited Paper)
14:30 ARNOLD, T.; MARTINEZ, M.; **PERNER, D.**; CROWLEY, J.N.
Chlorine and bromine detectoin during arctic ozone depletion events at Ny-Ålesund

14:50 **WITTROCK, F.**; RICHTER, A.; BURROWS, J.P.
DOAS UV/visible measurements at Ny-Ålesund 1995-1997: retrieval of tropospheric constituents

15:10 **LEHRER, E.**; KÖNIG-LANGLO, G.; LANGENDÖRFER, U.; MINIKIN, A.; TUCKERMANN, M.; UNOLD, W.; WAGENBACH, D.; PLATT, U.
Tropospheric ozone depletion and related halogen chemistry at polar regions

15:30 **RAMACHER, B.**; KOPPMANN, R.; RUDOLPH, J.
A novel approach to derive integrated halogen atom concentrations from changes in VOC pattern during tropospheric ozone depletions

15:50 **ARIYA, P.A.**; HOPPER, J.F.; HARRIS, G.W.
C_2-C_7 hydrocarbon concentration in Arctic snowpack interstitial air

16:10 Poster summaries of 3 min per summary

STURGES, W.T.; BAKER, J.M.; SUGIER, J.; SUNNENBERG, G.; CARPENTER, L.; LOVETT, A.; PENKETT, S.A.
Emission of reactive organochlorines and organobromines from coastal macrophytes

MIHELE, C.M.; IMPEY, G.; BARRIE, L.; ANLAUF, K.; SHEPSON, P.B.; HASTIE, D.R.
Bromine radicals and photolysable halogen compounds during polar sunrise at Alert, Canada

AMMANN, M.; WACHSMUTH, M.; BALTENSPERGER, U.; JOST, D.T.; GÄGGELER, H.W.
A new laboratory approach to heterogeneous halogen chemistry

BEHR, P.; **BREIL, M.**; ZELLNER, R.
Laboratory studies of the uptake of atmospheric trace gases on solid surfaces

ADAMS, J.; FICKERT, S.; MOORTGAT, G.K.; CROWLEY, J.N.
Activation of halogens via HOBr in the marine boundary layer - a laboratory study

BAUER, D.; INGHAM, T.; CAMPUZANO-JOST, P.; CARL, S.A.; MOORTGAT, G.K.; CROWLEY, J.N.
Gas-phase kinetics and photochemistry of bromine and iodine containing species in the marine boundary layer

BEDJANIAN, YU.; POULET, G.; LE BRAS, G.
Reactions of bromine atoms with alkenes: kinetics and mechanisms at low pressure

MÖSSINGER, J.; SHALLCROSS, D.E.; COX, R.A.
UV-visible absorption cross-sections and atmospheric lifetimes of CH_2Br_2, Ch_2I_2 and Ch_2BrI

FLEISCHMANN, O.C.; ORPHAL, J.; BURROWS, J.P.
Spectroscopic and kinetical investigation on BRO applying static and time resolved rapid scan FT-UV spectroscopy

BRÖSKE, R.; ZABLE, F.
Spectroscopic and kinetic properties of XNO_2 (X = Br, I)

SPIETZ, P.; HIMMELMANN, S.; GROSS, U.; ORPHAL, J.; BURROWS, J.P.
Study of iodine oxides and iodine ozone chemistry using flash photolysis and time resolved absorption spectroscopy

CANOSA-MAS, C.E.; FLUGGE, M.; SHAH, D.; **VIPOND, A.**; WAYNE, R.P.
Kinetic studies of the reactions of the IO radical with itself, $O(^3P)$ and HO_2

CANOSA-MAS, C.E.; COTTER, E.; STEWART, D.; **THOMPSON, K.**; WAYNE, R.P.
Laboratory kinetic studies of the reactions of Cl atoms with species of biogenic origin

NOTARIO, A.; BEDJANIAN, Y.; MELLOUKI, A.; LAVERDET, G.; LE BRAS, G.
The C_1 atom oxidation of isoprene studied in the laboratory

BERHO, F.; RAYEZ, M.-T.; LESCLAUX, R.; **VILLENAVE, E.**
The reaction of atomic chlorine with benzene

KÖLM, J.; NELANDER, B.; **SCHREMS, O.**; BEICHERT, P.
Low temperature FTIR-studies and ab-initio calculations of BrOBr and BrBrO

LAZAROU, Y.G.; KAMBANIS, K.G.; PAPAGIANNAKOPOULOS, P.
Theoretical ab-initio calculations of the structure and stability of halogen atoms adducts with alkyl halides

17:00 END OF PART I

OA18 Heterogeneous and homogeneous chemistry of reactive halogen compounds in the lower troposphere (co-sponsored by ST) - Poster Session

Convener: Platt, U.
Co-Convener(s): Moortgat, G.K.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: LES MUSES

OA340 **STURGES, W.T.**; BAKER, J.M.; SUGIER, J.; SUNNENBERG, G.; CARPENTER, L.; LOVETT, A.; PENKETT, S.A.
Emission of reactive organochlorines and organobromines from coastal macrophytes

OA341 **MIHELE, C.M.**; IMPEY, G.; BARRIE, L.; ANLAUF, K.; SHEPSON, P.B.; HASTIE, D.R.
Bromine radicals and photolysable halogen compounds during polar sunrise at Alert, Canada

OA342 **AMMANN, M.**; WACHSMUTH, M.; BALTENSPERGER, U.; JOST, D.T.; GÄGGELER, H.W.
A new laboratory approach to heterogeneous halogen chemistry

OA343 BEHR, P.; **BREIL, M.**; ZELLNER, R.
Laboratory studies of the uptake of atmospheric trace gases on solid surfaces

OA344 **ADAMS, J.**; FICKERT, S.; MOORTGAT, G.K.; CROWLEY, J.N.
Activation of halogens via HOBr in the marine boundary layer - a laboratory study

OA345 **BAUER, D.**; INGHAM, T.; CAMPUZANO-JOST, P.; CARL, S.A.; MOORTGAT, G.K.; CROWLEY, J.N.
Gas-phase kinetics and photochemistry of bromine and iodine containing species in the marine boundary layer

OA346 BEDJANIAN, YU.; POULET, G.; LE BRAS, G.
Reactions of bromine atoms with alkenes: kinetics and mechanisms at low pressure

OA347 **MÖSSINGER, J.**; SHALLCROSS, D.E.; COX, R.A.
UV-visible absorption cross-sections and atmospheric lifetimes of CH_2Br_2, Ch_2I_2 and Ch_2BrI

OA348 **FLEISCHMANN, O.C.**; ORPHAL, J.; BURROWS, J.P.
Spectroscopic and kinetical investigation on BRO applying static and time resolved rapid scan FT-UV spectroscopy

OA349 **BRÖSKE, R.**; ZABLE, F.
Spectroscopic and kinetic properties of XNO_2 (X = Br, I)

OA350 SPIETZ, P.; HIMMELMANN, S.; GROSS, U.; ORPHAL, J.; BURROWS, J.P.
Study of iodine oxides and iodine ozone chemistry using flash photolysis and time resolved absorption spectroscopy

OA351 CANOSA-MAS, C.E.; FLUGGE, M.; SHAH, D.; **VIPOND, A.**; WAYNE, R.P.
Kinetic studies of the reactions of the IO radical with itself, $O(^3P)$ and HO_2

OA352 CANOSA-MAS, C.E.; COTTER, E.; STEWART, D.; **THOMPSON, K.**; WAYNE, R.P.
Laboratory kinetic studies of the reactions of Cl atoms with species of biogenic origin

OA353 **NOTARIO, A.**; BEDJANIAN, Y.; MELLOUKI, A.; LAVERDET, G.; LE BRAS, G.
The C_1 atom oxidation of isoprene studied in the laboratory

OA354 BERHO, F.; RAYEZ, M.-T.; LESCLAUX, R.; **VILLENAVE, E.**
The reaction of atomic chlorine with benzene

OA355 KÖLM, J.; NELANDER, B.; **SCHREMS, O.**; BEICHERT, P.
Low temperature FTIR-studies and ab-initio calculations of BrOBr and BrBrO

OA356 **LAZAROU, Y.G.**; KAMBANIS, K.G.; PAPAGIANNAKOPOULOS, P.
Theoretical ab-initio calculations of the structure and stability of halogen atoms adducts with alkyl halides

OA18 Heterogeneous and homogeneous chemistry of reactive halogen compounds in the lower troposphere (co-sponsored by ST) II

Convener: Platt, U.
Co-Convener(s): Moortgat, G.K.
Friday, 24 April 1998
Lecture Room: CLIO
Chairperson: N.N.

08:30 **WAGNER, T.**; PFEILSTICKER, K.; PLATT, U.
GOME observation of enhanced tropospheric BrO concentration in the polar spring

08:50 **RICHTER, A.**; WITTROCK, F.; BURROWS, J.P.
GOME measurements of tropospheric BrO in northern hemispheric spring

09:10 **ALICKE, B.**; HEBESTREIT, K.; PLATT, U.; CARPENTER, L.J.; STURGES, W.T.
Measurements of tropospheric iodine oxide in the mid-latitudes

09:30 **CARPENTER, L.J.**; STURGES, W.T.; LISS, P.S.; PENKETT, S.A.; ALICKE, B.; HEBESTREIT, K.; PLATT, U.
Observations of alkyl iodides and bromides at Mace Heat: links to macroalgal emissions and io formation

09:50 **HEBESTREIT, K.**; STUTZ, J.; LURIA, M.; PELEG, M.; MATVEIV, V.; ROZEN, D.; PLATT, U.
First DOAS measurements of tropospheric BrO at mid latitudes: the Dead Sea Valley as a natural laboratory

10:10 BREAK

Chairperson: Seisel, S.

Modelling of halogen activation

10:30 **SANDER, R.**; VON GLASOW, R.; CRUTZEN, P.J.; VOGT, R.
Modelling the chemistry of ozone and halogen compounds in the marine boundary layer (Solicited Paper)

11:00 **VOGT, R.**; SANDER, R.; CRUTZEN, P.J.
The chemistry of iodine in the marine boundary layer

11:20 **MCFIGGANS, G.**; ALLAN, B.; COE, H.; PLANE, J.M.C.; CARPENTER, L.; O'DOWD, C.D.; STURGES, W.O.
Observations and modelling studies of reactive iodine species in the marine boundary layer

11:40 **STUTZ, J.**; HEBESTREIT, K.; ALICKE, B.; PLATT, U.
Chemistry of halogen oxides in the troposphere: comparison of model calculations with recent field data

12:00 **EVANS, M.J.**; LAW, K.S.; SHALLCROSS, D.E.; BASSFORD, M.; SPAIN, T.G.; SIMMONDS, P.; PYLE, J.A.
Modelling of low ozone measured at the West Coast of Ireland

Heterogeneous processes

12:20 **CROWLEY, J.N.**; FICKERT, S.; ADAMS, J.; BAUER, D.; INGHAM, T.
Reactive bromine in the marine boundary layer: laboratory studies of gas-phase and heterogeneous processes (Solicited Paper)

12:50 **OUM, K.W.**; LAKIN, M.J.; DEHANN, D.O.; BRAUERS, T.; STUTZ, J.; FINLAYSON-PITTS, B.J.
Formation of halogens from the heterogeneous reaction of sea salt

13:10 LUNCH

Chairperson: N.N.

14:00 SCHWEITZER, F.; **GEORGE, CH.**; MIRABEL, PH.
Multiphase phase chemistry of XNO_2 and HOBr in relation to tropospheric halogen activation

14:20 **SEISEL, S.**; CALOZ, F.; FENTER, F.F.; AGUZZI, A.; MOCHIDA, M.; ROSSI, M.J.
Heterogeneous reactions of halogen containing trace gases on NaCl and KBr salt

14:40 **CHAIX, L.**; ROSSI, M.J.
Kinetics of the uptake of D2O and $BrONO_2$ on ice

OA

15:00 GERSHENZON, M.YU.; FEDOTOV, N.G.; ILAEIN, S.D.; APARINA, E.V.; ZELENOV, V.V.; **GERSHENZON, YU.M.**
Mechanism of NO_3 uptake by solid NaCl
15:20 BREAK

Chairperson: N.N.

Heterogeneous and homogeneous Processes

15:40 **HERMMANN, H.**; REESE, A.; WICKTOR, F.; ERVENS, B.
Mechanistic considerations for tropospheric halogen activation in the marine aerosol
16:00 **BEHNKE, W.**; ELEND, M.; KRÜGER, U.; ZETZSCH, C.
Which components of the sea salt aerosol promote the Br-catalysed production of halogenated radicals?
16:20 DAVIES, J.A.; COX, R.A.
Kinetics of the heterogeneous reaction of HNO_3 with NaCl: effect of water vapour
16:40 **BLOSS, W.J.**; ROWLEY, D.M.; COX, R.A.; JONES, R.L.
Kinetic and photochemical studies of iodine oxide chemistry
17:00 **ROWLEY, D.M.**; MOSSINGER, J.; COX, R.A.
The UV absorption cross-section and atmospheric photolysis rate of HOI
17:20 KAMBANIS, K.G.; LAZAROU, Y.G.; **PAPAGIANNAKOPOULOS, P.**
Reaction rate and chemical mechanism for the gas phase reactions of Cl atoms with CH_2ICl and CH_2I_2
17:40 Concluding remarks
18:00 END OF SESSION

OA19 Free-radicals in the troposphere (co-sponsored by ST)

Convener: Dorn, H.-P.
Co-Convener(s): Volz-Thomas, A.
Tuesday, 21 April 1998
Lecture Room: CLIO
Chairperson: Monks, P.S.

NO3 radicals

11:00 PLATT, U.
The importance of nitrate radicals for atmospheric chemistry (Solicited Paper)
11:30 **DUBOIS, R.**; FLLENTJE, H.
Measurements of nitrate radicals and estimation of particle surface area at Cape Arkona (Rügen Island)
11:35 **ALLAN, B.J.**; COE, H.; MCFIGGANS, G.; PLANE, J.M.C.
Studies of the nitrate radical in the troposphere

RO2 radicals

11:40 **VOLZ-THOMAS, A.**; PRICE SCIENCE TEAM
On the status of peroxy radical measurements: results from the peroxy radical intercomparison exercises I + II (Solicited Paper)
12:10 Poster Summaries

MIHELE, C.M.; HASTIE, D.R.
The effect of humidity on wall loss and chain lengths in radical amplifiers
EL BOUDALI, A.; MAGUIN, F.; LAVERDET, G.; LE BRAS, G.
Measurements of peroxy radical concentrations in a peri-urban atmosphere using the chemical amplifier method
ANDRES HERNANDEZ, M.D.; BURKERT, J.; GERHARD, M.; REICHERT, L.; STÖBENER, D.; BURROWS, J.P.
Role of peroxy radicals in the formation of tropospheric ozone in Bremen
HANKE, M.; REINER, T.; ARNOLD, F.
Laboratory studies on the selective measurement of organic perozy radicals and HO_2 by chemical conversion/ion molecule reaction mass spectrometry
REINER, T.; HANKE, M.; ARNOLD, F.; ZIEREIS, H.; SCHLAGER, W.; JUNKERMANN, W.
Aircraft-borne measurements of peroxy radicals, related trace gases, and UV radiation
CLEMITSHAW, K.C.; SUGIER, J.; JENKIN, M.E.; HEARD, D.E.; PILLING, M.J.; BURROWS, J.P.; MIHELCIC, D.J.; LAVERDET, G.; HJORTH, J.
Peroxy radical initiative for measurements in the environment (PRIME): a new EU project
13:00 LUNCH

Chairperson: Monks, P.S.

OH radicals

14:00 HOFZUMAHAUS, A.
OH radicals in the atmosphere (Solicited Paper)

14:30 Poster Summaries

BERRESHEIM, H.; ELSTE, T.; WEINER, R.; PLASS-DÜLMER, C.; EISELE, F.L.; TANNER, D.J.
Tests and evaluation of an ion assisted mass spectrometric technique for long-term monitoring of atmospheric OH-radicals
WEBER, M.; HOFZUMAHAUS, A.; HOLLAND, F.; SCHÄFER, J.; SEDLACEK, M.
The measurement of tropospheric HO_2 radical concentrations by laser-induced fluorescence at low pressure
SEDLACEK, M.; WEBER, M.; HOFZUMAHAUS, A.
Investigation of the effective absorption cross-sections of water vapour and oxygen for the VUV emissions of low pressure mercury lamps at 185 NM
CREASEY, D.J.; HALFORD-MAW, P.A.; HEARD, D.E.; LEE, J.D.; PILLING, M.J.; WHITAKER, B.J.
Measurement of HOx in the marine boundary layer
CARSLAW, N.; JACOBS, P.J.; PILLING, M.J.
Modelling radical chemistry in the marine boundary layer

MONKS, P.S.; CARSLAW, N.; EVANS, M.; SHALLCROSS, D.; LEWIS, A.C.; LAW, K.; PENKETT, S.A.; PYLE, J.; PILLING, M.J.
Isoprene and radicals: sstimulants for the export of continental ozone?
FORBERICH, O.; PFEIFFER, P.; COMES, F.J.
Tropospheric OH box-modelling and analytical studies: comparison with observations from the WAOSE'95
HAUSMANN, M.; HOLLAND, F.; KOHLMANN, J.-P.; ROHRER, F.; EHHALT, D.H.
On the dependence of the OH radical concentration on its precursors: results of the POPCORN field campaign
CALANCA, P.; **REIMANN, S.**; HOFER, P.
Inferring OH concentrations from diurnal variations of non-methane hydrocarbons
KOHLMANN, J.-P.; POPPE, D.
Influence of the uncertainty of gas phase rate constants on the modeled tropospheric OH concentrations
COLLINS, W.J.; STEVENSON, D.S.; JOHNSON, C.E.; DERWENT, R.G.
Chemical processes affecting the global distribution of OH in a tropospheric Lagrangian chemistry model
ACKERMANN, R.; GEYER, A.; STUTZ, J.; LOERZER, J.; KURTENBACH, R.; BECKER, K.-H.; PLATT, U.
Simultaneous DOAS-measurements of HONO and its precursors in a traffic tunnel
KOURTIDIS, K.; ZEREFOS, C.; TSIOURI, I.; SCHMITT, R.; RAPPENGLUECK, B.; SUPPAN, P.; FABIAN, P.
Production and destruction rate of OH at an island and a suburban site in Greece during the 1996 PAUR campaign
KRAUS, A.; HOFZUMAHAUS, A.
Airborne measurements of the absolute solar actinic UV flux and the O_3 -> $O(^1D)$ photolysis frequency in the troposphere between 0-12 km altitude
HASZPRA, L.; **RADICS, K.**
A quality control/quality assessment method for atmospheric non-methane hydrocarbon (NMHC) measurement
ELANSKY, N.F.; VOLOKH, A.A.; VLASENKO, T.S.; KUZNETSOV, G.I.; TEREKHOVA, O.A.
Volatile organic compounds and peroxy radicals concentrations for urban and rural regions of Russia

16:30 END OF SESSION

OA19 Free-radicals in the troposphere (co-sponsored by ST) - Poster Session

Convener: Dorn, H.-P.
Co-Convener(s): Volz-Thomas, A.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: LES MUSES
Chairperson: Andrés Hernandez, M.

OA363 **DUBOIS, R.**; FLLENTJE, H.
Measurements of nitrate radicals and estimation of particle surface area at Cape Arkona (Rügen Island)

OA364 **ALLAN, B.J.**; COE, H.; MCFIGGANS, G.; PLANE, J.M.C.
Studies of the nitrate radical in the troposphere

OA365 **MIHELE, C.M.**; HASTIE, D.R.
The effect of humidity on wall loss and chain lengths in radical amplifiers

OA366 EL BOUDALI, A.; MAGUIN, F.; LAVERDET, G.; LE BRAS, G.
Measurements of peroxy radical concentrations in a peri-urban atmosphere using the chemical amplifier method

OA367 **ANDRES HERNANDEZ, M.D.**; BURKERT, J.; GERHARD, M.; REICHERT, L.; STÖBENER, D.; BURROWS, J.P.
Role of peroxy radicals in the formation of tropospheric ozone in Bremen

OA368 **HANKE, M.**; REINER, T.; ARNOLD, F.
Laboratory studies on the selective measurement of organic perozy radicals and HO_2 by chemical conversion/ion molecule reaction mass spectrometry

OA369 **REINER, T.**; HANKE, M.; ARNOLD, F.; ZIEREIS, H.; SCHLAGER, W.; JUNKERMANN, W.
Aircraft-borne measurements of peroxy radicals, related trace gases, and UV radiation

OA370 CLEMITSHAW, K.C.; SUGIER, J.; JENKIN, M.E.; HEARD, D.E.; PILLING, M.J.; BURROWS, J.P.; MIHELCIC, D.J.; LAVERDET, G.; HJORTH, J.
Peroxy radical initiative for measurements in the environment (PRIME): a new EU project

OA371 **BERRESHEIM, H.**; ELSTE, T.; WEINER, R.; PLASS-DÜLMER, C.; EISELE, F.L.; TANNER, D.J.
Tests and evaluation of an ion assisted mass spectrometric technique for long-term monitoring of atmospheric OH-radicals

OA372 **WEBER, M.**; HOFZUMAHAUS, A.; HOLLAND, F.; SCHÄFER, J.; SEDLACEK, M.
The measurement of tropospheric HO_2 radical concentrations by laser-induced fluorescence at low pressure

OA373 **SEDLACEK, M.**; WEBER, M.; HOFZUMAHAUS, A.
Investigation of the effective absorption cross-sections of water vapour and oxygen for the VUV emissions of low pressure mercury lamps at 185 NM

OA374 **CREASEY, D.J.**; HALFORD-MAW, P.A.; HEARD, D.E.; LEE, J.D.; PILLING, M.J.; WHITAKER, B.J.
Measurement of HOx in the marine boundary layer

OA375 **CARSLAW, N.**; JACOBS, P.J.; PILLING, M.J.
Modelling radical chemistry in the marine boundary layer

OA376 **MONKS, P.S.**; CARSLAW, N.; EVANS, M.; SHALLCROSS, D.; LEWIS, A.C.; LAW, K.; PENKETT, S.A.; PYLE, J.; PILLING, M.J.
Isoprene and radicals: sstimulants for the export of continental ozone?

OA377 **FORBERICH, O.**; PFEIFFER, P.; COMES, F.J.
Tropospheric OH box-modelling and analytical studies: comparison with observations from the WAOSE'95

OA378 **HAUSMANN, M.**; HOLLAND, F.; KOHLMANN, J.-P.; ROHRER, F.; EHHALT, D.H.
On the dependence of the OH radical concentration on its precursors: results of the POPCORN field campaign

OA379 CALANCA, P.; **REIMANN, S.**; HOFER, P.
Inferring OH concentrations from diurnal variations of non-methane hydrocarbons

OA380 **KOHLMANN, J.-P.**; POPPE, D.
Influence of the uncertainty of gas phase rate constants on the modeled tropospheric OH concentrations

OA381 **COLLINS, W.J.**; STEVENSON, D.S.; JOHNSON, C.E.; DERWENT, R.G.
Chemical processes affecting the global distribution of OH in a tropospheric Lagrangian chemistry model

OA382 **ACKERMANN, R.**; GEYER, A.; STUTZ, J.; LOERZER, J.; KURTENBACH, R.; BECKER, K.-H.; PLATT, U.
Simultaneous DOAS-measurements of HONO and its precursors in a traffic tunnel

OA383 KOURTIDIS, K.; ZEREFOS, C.; TSIOURI, I.; SCHMITT, R.; RAPPENGLUECK, B.; SUPPAN, P.; FABIAN, P.
Production and destruction rate of OH at an island and a suburban site in Greece during the 1996 PAUR campaign

OA384 **KRAUS, A.**; HOFZUMAHAUS, A.
Airborne measurements of the absolute solar actinic UV flux and the O_3 -> $O(^1D)$ photolysis frequency in the troposphere between 0-12 km altitude

OA385 HASZPRA, L.; **RADICS, K.**
A quality control/quality assessment method for atmospheric non-methane hydrocarbon (NMHC) measurement

OA386 ELANSKY, N.F.; VOLOKH, A.A.; VLASENKO, T.S.; KUZNETSOV, G.I.; TEREKHOVA, O.A.
Volatile organic compounds and peroxy radicals concentrations for urban and rural regions of Russia

OA20 Radiogenic isotopes as tracers of source-areas for aerosols, suspended matter and sediments (co-sponsored by ST)

Convener: Grousset, F.E.
Co-Convener(s): Sirocko, F.
Wednesday, 22 April 1998
Lecture Room: CLIO
Chairperson: Jeandel, C.

08:30 BISCAYE, P.E.
Tracking particles and particulate processes with radiogenic isotope tracers (Solicited Paper)

09:00 **JOURNEL, B.**; ALLEMAN, L.; NICOLAS, E.; VERON, A.; HAMELIN, B.
Stable lead isotopes contribution to the chemical climatology of the western Mediterranean

09:15 **CARIGNAN, J.**; REISBERG, L.; SPATZ, C.
Sm/Nd isotopes in continental aerosols: results from a study of epiphytic lichens

09:30 **REVEL, M.**; BISCAYE, P.; GROUSSET, F.; BASILE, J.
Particle grain-size control on the Sr-Nd and Pb isotopic composition

09:45 **TACHIKAWA, K.**; JEANDEL, C.
REE pattern and Nd isotopic ratios of seawater, filtered suspensions and trapped materials from tropical NE Atlantic

10:00 **HUON, S.**; MONIE, P.; JANTSCHIK, R.; KÜBLER, B.
K-Ar and $^{40}Ar/^{39}Ar$ isotopic signature of enhanced icerafting supply in the NE Atlantic

10:15 **SIROCKO, F.**; GOLDSTEIN, S.L.
Provenance of clastic sediments in the northern Indian Ocean: evidence from the 143Nd/144Nd, 87Sr/86Sr composition

10:30 **GROUSSET, F.E.**; PARRA, M.; BORY, A.
Saharan wind regimes traced by the Sr-Nd isotopic composition of the subtropical Atlantic sediments

10:45 **BASILE, I.**; GROUSSET, F.; REVEL, M.; PETIT, J.R.; BISCAYE, P.; ALBAREDE, F.; JAGOUTZ, E.
Origin of continental and volcanic aerosols of the Vostok ice core (Antarctica)

11:00 **SVENSSON, A.**; BISCAYE, P.E.; GROUSSET, F.E.
On the origin of continental dust in the Greenland GRIP ice core back to 44 kyr BP

11:15 **ANDERSEN, K.K.**; GENTHON, C.
GCM modelling of atmospheric dust transportation with constraints on paleo sources

11:30 END OF SESSION

12:00 Business Meetings

OA21 Biogeochemical interactions in the coastal marine environment

Convener: Monaco, A.
Co-Convener(s): Price, N.B.
Monday, 20 April 1998
Lecture Room: CLIO
Chairperson: Zavatarelli, M.

08:30 **HAINES, K.**; WU, P.; ROETHER, W.; STRATFORD, K.
Simulations of CFC12 distributions with a GCM of the Mediterranean Sea

08:45 **ZAVATARELLI, M.**; PINARDI, N.; ALLEN, J.I.
Simulation of the seasonal cycle of the Adriatic Sea ecosystem with a high resolution coupled ecosystem model

09:00 **O'RIORDAN, C.**; TUSSEAU, M.H.; MORTIER, L.
Modelling biogeochemical cycles in a coastal zone: sensitivity to nutrient inputs from rivers and sediments

09:15 SCHRUM, C.
Interannual variability of fluxes across the North Sea boundaties

09:30 **SCHMIDT, S.**; REYSS, J.-L.
Mesoscale estimation of particle dynamics, derived from ^{234}Th, in surface waters across the Iberian margin

09:45 **MIGON, C.**; SANDRONI, V.; COPIN-MONTEGUT, G.
Phosphates in rainwaters: total fluxes and partitioning between labile and refractory phases

10:00 **VEYSSY, F.**; MANEUX, E.; ETCHEBER, H.; BUAT-MENARD, P.
Transfers of total suspended matter (TSM) and particulate organic carbon (POC) from watersheds to estuaries by the south-western French river systems

10:15 **GOGOU, A.**; BOULOUBASSI, I.; STEPHANOU, E.G.
Vertical fluxes of organic species in a coastal marine area (eastern Mediterranean): autochthonous vs. allochthonous contribution

10:30 BREAK

Chairperson: Price, N.B.

11:00 DANOVARO, R.; **MARRALE, D.**; DELLA CROCE, N.; PARODI, P.; FABIANO, M.
Characterization of sedimentary organic matter in north and south Aegean Sea (eastern Mediterranean): analysis of the bacterial contribution to the biopolymeric carbon

11:15 ANSCHUTZ, P.; SUNDBY, B.; LEFRANCOIS, L.; LUTHER III, G.W.; MUCCI, A.
High-resolution microelectrode profiles of redox species in sediment pore waters

11:30 LAPAQUELLERIE, Y.; BLANC, G.; MAILLET, N.; ANSCHUTZ, P.; LATOUCHE, C.; **BUAT-MENARD, P.**
Temporal patterns of cadmium contamination within the Lot-Garonne-Gironde (France) fluvial system

11:45 **GUIEU, C.**; RDAME, C.
Biogeochemical processes affecting the distribution of trace metals in the Danube mixing zone

12:00 **GARNIER, J.-M.**; GUIEU, C.
Simulation of the Cd and Mn behaviour in the Danube mixing zone using stable and radioactive trace elements as indicators

12:15 ALLEMAN, L.; FERRAND, J.; **HAMELIN, B.**; RADAKOVITCH, O.; ABASSI, A.; HEUSSNER, S.
Anthropogenic lead and ^{210}Pb as indicators of particles resuspension in the Gulf of Lions

12:30 **PATES, J.M.**; PRICE, N.B.; COOK, G.T.
Are natural radionuclides suitable carbon cycle tracers in the Mediterranean?

12:45 **MARECHAL, C.N.**; NICOLAS, E.; ALBAREDE, F.
Isotopic and elemental variability of Cu and Zn in sediment trap material from the central Atlantic Ocean

13:00 END OF SESSION

17:00 Opening

19:30 Reception

OA21 Biogeochemical interactions in the coastal marine environment - Poster Session

Convener: Monaco, A.
Co-Convener(s): Price, N.B.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: LES MUSES
Chairperson: Buat-Menard, P.

OA387 **NICOLAS, E.**; BETHOUX, J.P.; MIGON, C.
Geochemical implications of atmospheric lead decrease on the Mediterranean sea environment

OA388 **CERQUEIRA, M.A.**; PIO, C.A.
The atmospheric flux of dimethyl sulphide from a southwest European estuary

OA389 **SANDRONI, V.**; JOURNEL, B.; MIGON, C.; NICOLAS, E.
Trace metal dissolved and particulate phases in atmospheric inputs

OA390 **RIDAME, C.**; GUIEU, C.; LÖYE-PILOT, M.-D.
Total atmospheric fluxes of trace metals in northwestern Mediterranean from 2 years measurement (1995 to 1997)

OA391 DELGADO, C.; PERIS, G.; ROSEL, J.; ESTEVE, V.
X-ray fluorescence elemental analysis of PM-10 airborne particulate at a Mediterranean coastal site (Castellon, Spain)

OA392 SANZA, G.; PERIS, G.; CARDA, J.; ESTEVE, V.
Chemical characterization of individual aerosol particles collected by cascade impactor sampling at Castellon (Spain)

OA393 **SARMA, V.V.S.S.**; DILEEP KUMAR, M.
Control of pH by rock-water interactions with implications to air-sea exchange of carbon dioxide in a tropical estuarine (Mandovi-Zuari) complex

OA394 **DIAZ, F.**; RAIMBAULT, P.; CONAN, P.
Variability of primary production and f ratio in a Mediterranean coastal zone during spring bloom

OA395 BALBONI, V.; BOLDRIN, A.; CIVITARESE, G.; DE LAZZARI, A.; GIORDANI, P.; MALAGUTI, A.; **MISEROCCHI, S.**; RABITTI, S.; STRADA, L.; TURCHETTO, M.M.
Primary production and short term carbon export in southern Adriatic and Ionian Sea

OA396 DE BOVEE, F.; PICON, P.; MEDERNACH, L.; SCHMIEDL, G.; BUSCAIL, R.
In-situ studies of biogeochemical processes occurring at the deep-sea floor: first results obtained with the Banyuls Benthic Lander

OA397 **JAMET, D.**; GOURDEAU, J.; JAMET, J.L.; GENEYS, C.; DESPIAU, S.
Annual cycle of plancton activity and DMS production in a coastal zone

OA22 Biogeochemical processes in submarine hydrothermal systems along the Hellenic Volcanic Island Arc - Poster Session

Convener: Varnavas, S.
Co-Convener(s): Dando, P.R.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: LES MUSES
Chairpersons: Varnavas, S.; Dando, P.R.
Editors: Varnavas, S.; Dando, P.R.

OA398 ETIOPE, G.; ITALIANO, F.; FUDA, J.L.;
OA22-006 FAVALI, P.; FRUGONI, F.; CALCARA, M.; SMRIGLIO, G.; MARANI, M.
Deep submarine gas vents in the Aeolian offshore

OA399 THE AEGEAN HYDROTHERMAL FLUXES
OA22-007 CONSORTIUM
Hydrothermal fluxes and biological production in the Aegean

OA22 Biogeochemical processes in submarine hydrothermal systems along the Hellenic Volcanic Island Arc

Convener: Varnavas, S.
Co-Convener(s): Dando, P.R.
Friday, 24 April 1998
Lecture Room: EUTERPE
Chairpersons: Varnavas, S.; Dando, P.R.
Editors: Varnavas, S.; Dando, P.R.

14:00 **ZIEBIS, W.**; FORSTER, S.; BOERNER, R.;
OA22- MENGER, S.
001 Geochemical gradients and biogeochemical processes in sediments at hydrothermal vents off Milos, Aegean Sea
14:15 **KÖLBL, R.**; STÜBEN, D.; ALIANI, S.; DANADO,
OA22- P.
002 Hydrothermal plume composition and distribution south of Milos, Aegean Sea, Greece
14:30 **RAHNER, S.**; HALBACH, P.; PRIEBE, M.;
OA22- VARNAVAS, S.P.
003 Hydrothermal activities in the Saronic Gulf and in the Kos-Yali waters, Greece
14:45 **VARNAVAS, S.P.**; MEGALOVASILIS, P.;
OA22- PANAGIOTARAS, D.; DANDO, P.
004 Compositional and morphological characterisation of particulate matter in hydrothermal fields of the Hellenic Volcanic Arc *
15:00 MAKROPOULOS, K.; **KOUSKOUNA, A.**;
OA22- KARNASsOPOULOU, A.; DANDO, P.;
005 VARNAVAS, S.P.
Seismicity in the Aegean hydrothermal system in relation to biogeochemical parameters *
15:15 Discussion
15:30 END OF SESSION

OA23 Operational oceanography: existing systems, developments and future potential

Convener: Flather, R.A.
Co-Convener(s): Bohle-Carbonell, M.
Wednesday, 22 April 1998
Lecture Room: URANIE
Chairperson: N.N.

09:00 PEREZ GOMEZ, B.; RODRIGUEZ SANCHEZ-AREVALO, I.; **ALVAREZ FANJUL, E.**
NIVMAR: a storm surge forecast system for the Iberian Peninsula. Implementation and hindcast benchmark
09:15 SZTOBRYN, M.; KOWALSKA, B.
Sea level forecast in the Gulf of Gdansk on the basis of integrated system of maritime operational hydrological forecasting
09:20 JANSSEN, F.
The quality of operational water level forecasts in dependence upon the formulation of the surface drag
09:25 FLATHER, R.A.; **PROCTOR, R.**; JAMES, I.D.; JONES, E.; SMITH, J.A.; DAVIES, A.M.; KWONG, C.M.; HOLT, M.W.; DAVIES, J.
Status of UK operational storm surge forecasting for the NW European Shelf
09:40 CARRETERO ALBIACH, J.C.; GOMEZ LAHOZ, M.; FANJUL, E.A.; ALFONSO-MUNOYERRO, M.A.; LOPEZ MALDONADO, J.D.
A wave forecasting system for the Spanish harbours
09:55 OCAMPO-TORRES, F.J.
Wave field evolution in coastal regions
10:10 HARGREAVES, J.C.
Wave prediction in shallow water
10:15 **REICHERT, K.**; DITTMER, J.; NIETO BORGE, J.C.; HESSNER, K.
WaMoS II: an operational wave monitoring system
10:20 **GURGEL, K.-W.**; WYATT, L.R.
Applications of HF-radar in operational oceanography
10:25 FUNKQUIST, L.
HIROMB - an operational 3D model for the North Sea-Baltic Sea
10:30 **EIGENHEER, A.**; FUNKQUIST, L.
Performance of the HIROMB
10:45 VOS, R.J.; BOON, J.G.; TEN BRUMMELHUIS, P.G.J.; **GERRITSEN, H.**
Structured data model integration to assess the state of SPM on the northwest European shelft
11:00 **BAHUREL, P.**; DOMBROWSKY, E; GIRAUD, S.; AUDOUBERT, J.-M.
Developing operational systems for ocean monitoring: experience and key points to the SOPRANE system on the eastern North Atlantic
11:15 GIRAUD, S.; BAHUREL, P.; GAILLARD, F.; **DOMBROWSKY, E.**
How an operational ocean forecast system helps during an ocean scientific cruise. Application to SOPRANE/CAMBIOS98 experiment
11:30 PARKER, B.B.
Oceanographic nowcast/forecast model systems for bays and harbors
11:45 LUNCH
12:00 Business Meetings

Chairperson: N.N.

14:00 **NÖHREN, I.**; DUWE, K.; BAUMERT, H.; MAHNKE, P.
An operational model system for a tidal estuary: routine investigations and scientific prspects in the existing river Elbe development
14:15 BURWELL, D.; LUTHER, M.E.; SCHMIDT, N.; VINCENT, M.
The Tampa Bay physical oceanographic real-time system (PORTS)
14:30 **VAN DEN BOOGAARD, H.F.P.**; WÜST, J.C.
The potential of neural networks for operational oceanography
14:45 **TIMMEN, L.**; BASTOS, L.; BOEBEL, T.; CUNHA, S.; FORSBERG, R.; GIDSKEHAUG, A.; HEHL, K.; MEYER, U.; NESEMANN, M.; OLESEN, A.V.
A new airborne gravimetry/altimetry system for coastal oceanography - the AGMASCO project
14:50 **VINCENT, P.**; MENARD, Y.; ESCUDIER, P.; PARISOT, F.; PERBOS, J.; BOAIN, R.
Jason-1 altimetry and operational applications

15:05 **LIONELLO, P.**; ELVINI, E.; MALGUZZI, P.; TOMASIN, A.; TOSI, E.
The MAAMMed project: meteo-marine prediction in the Mediterranean Sea

15:20 HARDING, J.; PRELLER, R.; RHODES, R.
Coastal ocean prediction at the Naval Research Laboratory

15:35 COURTIER, PH.; **ANDRE, J.-C.**
MERCATOR, a French programme for operational oceanography

15:50 CANIAUX, G.; GIORDANI, H.; PLANTON, S.
Determination of the best data set for the surface turbulence fluexes computing: application to the MERCATOR project

15:55 **BOONE, C.**; LE TRAON, P.Y.
Operational processing of altimeter data for climate studies (DUACS project)

16:00 **BOBANOVIC, J.**; THOMPSON, K.R.; SHENG, J.
Operational modelling of the eastern Canadian Shelf seas

16:15 **BARGAGLI, A.**; CARILLO, A.; MARIOTTI, A.; NICASTRO, S; PISACANE, G.; RUTI, P.M.; STRUGLIA, M.V.; VALENTINOTTI, F.
A high resolution integrated forecast system over the Mediterranean Basin

16:30 **BLAYO, E.**; DEBREU, L.
Adaptive mesh refinement and zoom methods for ocean prediction

16:35 END OF SESSION

OA23 Operational oceanography: existing systems, developments and future potential - Poster Session

Convener: Flather, R.A.
Co-Convener(s): Bohle-Carbonell, M.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: LES MUSES

OA119 SZTOBRYN, M.; KOWALSKA, B.
Sea level forecast in the Gulf of Gdansk on the basis of integrated system of maritime operational hydrological forecasting

OA120 JANSSEN, F.
The quality of operational water level forecasts in dependence upon the formulation of the surface drag

OA121 HARGREAVES, J.C.
Wave prediction in shallow water

OA122 **REICHERT, K.**; DITTMER, J.; NIETO BORGE, J.C.; HESSNER, K.
WaMoS II: an operational wave monitoring system

OA123 **GURGEL, K.-W.**; WYATT, L.R.
Applications of HF-radar in operational oceanography

OA124 FUNKQUIST, L.
HIROMB - an operational 3D model for the North Sea-Baltic Sea

OA125 **TIMMEN, L.**; BASTOS, L.; BOEBEL, T.; CUNHA, S.; FORSBERG, R.; GIDSKEHAUG, A.; HEHL, K.; MEYER, U.; NESEMANN, M.; OLESEN, A.V.
A new airborne gravimetry/altimetry system for coastal oceanography - the AGMASCO project

OA126 CANIAUX, G.; GIORDANI, H.; PLANTON, S.
Determination of the best data set for the surface turbulence fluexes computing: application to the MERCATOR project

OA127 **BOONE, C.**; LE TRAON, P.Y.
Operational processing of altimeter data for climate studies (DUACS project)

OA128 **BLAYO, E.**; DEBREU, L.
Adaptive mesh refinement and zoom methods for ocean prediction

OA129 NAKAMURA. S
Interannual sea level variations and the Sa tide in the northwestern seismic zone

OA130 SZTOBRYN, M.; KADSKA, A.; KRZYSZTOFIK, K.
Comparison between observed, hindcast and nowcast sea level on the southern part of the Baltic Sea

OA131 WROBLEWSKI, A.
Dynamic regression and EOF forecast model applied for splitting linear and nonlinear forcing of the Baltic storm surge

OA24 Marine data management: assimilation, hindcasting and nowcasting

Convener: Evensen, G.
Co-Convener(s): Gerritsen, H.
Thursday, 23 April 1998
Lecture Room: ERATO
Chairperson: N.N.

08:30 EVENSEN, G.
An Ensemble Kalman Filter with an isophycnic coordinate ocean general circulation model

08:45 **MADSEN, H.**; CANIZARES, R.; VESTED, H.J.; JENSEN, H.R.
Application of the Kalman filter for data assimilation in coastal area modelling

09:00 **ECHEVIN, V.**; DE MEY, P.; EVENSEN, G.
Sensitivity to observations in a coastal model of the northwestern Mediterranean Sea

09:15 **VERRON, J.**; BRASSEUR, P.; PHAM-DIN-TUAN; GOURDEAU, L.
A singular evolutive extended Kalman filter

09:30 **BRASSEUR, P.**; BALLABRERA, J.; VERRON, J.
Assimilation of altimetric data in eddy-resolving primitive-equation models

09:45 ANNAN, J.D.
Temperature assimilation in the North Sea

10:00 **NECHAEV, D.**; SCHRÖTER, J.; YAREMCHUK, M.
An inverse finite element model of the large scale circulation in the South Atlantic

10:15 VEERSE, F.
Estimation of analysis error statistics for variational data assimilation

10:30 BREAK

Chairperson: N.N.

11:00 **BOBANOVIC, J.**; THOMPSON, K.R.
Hindcasting the synoptic variability in the Gulf of Saint Lawrence

OA

11:15 KIVMAN, G.A.; GUESSEN, A.V.; **KURAPOV, A.L.**
Tuning weights and smoothing parameters of the general inversion
11:30 **ATHIAS, V.**; MAZZEGA, P.; JEANDEL, C.
Nonlinear inversion of in situ data from oceanic dissolved-particulate exchanges
11:45 NATVIK, L.-J.; EKNES, M.; EVENSEN, G.
Studying marine ecosystems in terms of data assimilation
12:00 **WIRTH, A.**; GHIL, M.
A quasi-geostraphic data assimilation scheme for primitive-equation models
12:15 **TEN BRUMMELHUIS, P.G.J.**; BOON, J.G.; GERRITSEN, H.; VOS, R.J.
Sensitivity analysis of an intergrated model for suspended sediment transport in the North Sea
12:30 **BLANCHET, I.**; COURTIER, R.
An experimental system for Mercator
12:45 **JACOB, A.**; EVENSEN, G.; HAMRE, T.
A Marine Information System (MIS) in support of a coastal zone monitoring and prediction system
13:00 END OF SESSION

OA24 Marine data management: assimilation, hindcasting and nowcasting - Poster Session

Convener: Evensen, G.
Co-Convener(s): Gerritsen, H.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: LES MUSES

OA132 **XU, Z.**; HENDRY, R.; LODER, J.
Tidal data assimilation for the Newfoundland and South Labrador Shelves by a direct inverse method
OA133 KILLWORTH, P.D.; DIETERICH, CH.; OSCHLIES, A.; WILLEBRAND, J.; MOLINES, J.-M.
Improving the mean state of a model by assimilating mean topography together with SSH anomalies: results from the DYNAMO project
OA134 LOUVEL, S.
Weak-constraint variational assimilation of altimeter data in a non-linear ocean model
OA135 **BARCKICKE, J.**; MENARD, Y.
Wave models analysis improvement by using altimetric wave heights
OA136 **CARME, S.**; PHAM, D.T.; BLAYO, E.; VERRON, J.
Reduced Kalman filter applied to data assimilation with strongly non linear models
OA137 LEREDDE, Y.; DEKEYSER, I.; DEVENON, J.L.
T-S data assimilation in a 3D circulation model to optimize the turbulent viscosity
OA138 VEERSE, F.
Multiple-truncation incremental strategies for variational data assimilation
OA139 LANGENBERG, H.
A 40-year coupled hindcast of ocean and atmosphere in the North Sea region
OA140 MURRAY, M.J.; ALLEN, M.R.
Optimal interpolation and statistical analysis of SST fields from ATSR
OA141 **SMEDSTAD, O.M.**; FOX, D.N.; HURLBURT, H.E.; JACOBS, G.A.; METZGER, E.J.; RHODES, R.C.; SHRIVER, J.F.
A nowcast/forecast system based on the global NRL Layered Ocean Model (NLOM)

OA25 Developments in weather forecasting I

Convener: Gustafsson, N.
Co-Convener(s): Benard, P.
Monday, 20 April 1998
Lecture Room: THALIE
Chairperson: Gustafsson, N.

08:30 **BENJAMIN, S.G.**; BROWN, J.M.
Forecasts from the 1-H assimilation cycle in the 40-km rapid update cycle
08:45 THERY, C.; DEFER, E.; SOLOMON, R.
Numerical modelisation of storm dynamics, precipitation and electrisation
09:00 BAER, F.
Improving time integration schemes in prediction models
09:15 **LORRIMER, S.J.**; MILTON, S.F.
Enhanced resolution in the UK Meteorological Office operational NWP system
09:30 FOX-RABINOVITZ, M.; STENCHIKOV, G.; SUAREZ, M.; TAKACS, L.; GOVINDARAJU, R.
A variable resolution stretched grid dynamical core of a finite-difference GCM with a real orography: long-and-medium-term integrations
09:45 **MAKIN, V.**; PEROV, V.
On the wind speed dependence of momentum, sensible heat and moisture exchange coefficients over sea in the 3-D HIRLAM
10:00 BEST, M.J.
Representing urban areas in numerical weather prediction models
10:15 WEDI, N.P.
Advances in the coupling of physical parameterizations with the "dynamics" in a global NWP model
10:30 END OF PART I
17:00 Opening
19:30 Reception

OA25 Developments in weather forecasting II

Convener: Gustafsson, N.
Co-Convener(s): Benard, P.
Tuesday, 21 April 1998
Lecture Room: THALIE
Chairperson: Benard, P.

08:30 **PEROV, V.**; IVARSSON, K.-I.
Implementation of the nonlocal vertical diffusion scheme based on E - ε approach in 3D HIRLAM
08:45 **GUSTAFSSON, N.**; LINDSKOG, M.; BERRE, L.; NAVASCUES, B.; HUANG, X.-Y.
A 3-dimensional variational data assimilation for HIRLAM

09:00 **HUANG, X.-Y.**; GUSTAFSSON, N.; LINDSKOG, M.; BERRE, L.; NAVASCUES, B.
A comparison between the HIRLAM OI and the HIRLAM 3DVAR systems

09:15 HUANG, X.-Y.; GUSTAFSSON, N.; **KÄLLEN, E.**; THORSTEINSSON, S.
Simplified variational data assimilation techniques with a limited area model

09:30 **DEE, D.**; STAJNER, I.; RIISHOJGAARD, L.P.
Estimation of anisotropic forecast error correlation parameters for the GEOS-DAS ozone assimilation system

09:45 FOX-RABINOVITZ, M.
The impact of diabatic initialization of the stratospheric data assimilation

10:00 RIISHOJGAARD, L.P.
An efficient method for estimating the error variance of a meteorological analysis

10:15 **DEE, D.**; RUKHOVETS, L.; DA SILVA, A.; LARSON, J.
An adaptive buddy check for on-line quality control of observations

10:30 BREAK

Chairperson: Fox-Rabinovitz, M.S.

11:00 **TODLING, R.**; GUO, J.; RIISHOJGAARD, L.P.; DA SILVA, A.M.
Estimating analysis errors with the physical-space statistical analysis system

11:15 NURMI, P.
Any improvements or trends in the quality of final weather forecasts? - Results based on verifications over the past 20 years

11:30 MAISEY, P.E.
On developments and performance of a site specific forecast model

11:45 TURRONI, E.; CORDOLA, M.; **PELOSINI, R.**; BONELLI, P.
Meteorology for the 1997 world championship of alpine ski

12:00 PLAUT, G.
French stations temperatures empirical forecasting at several time scales using space-time principal components

12:15 **ADEM, J.**; MENDOZA, V.M.; RUIZ, A.; VILLANUEVA, E.E.; GARDUNO, R.
Progress in seasonal weather prediction with a thermodynamic model

12:30 **BUIZZA, R.**; MILLER, M.; PALMER, T.N.; ISAKSEN, L.
Simulating model uncertainties in ensemble prediction

12:45 **TOTH, Z.**; ZHU, Y.; IYENGAR, G; MARCHOK, T.; KALNAY, E.
On the relative merits of increasing model resolution vs. running an ensemble

13:00 END OF SESSION

Attend the Business Meeting of your Section

on Wednesday, 22 April, 12.00-14.00, Lecture Room Clio

OA25 Developments in weather forecasting - Poster Session

Convener: Gustafsson, N.
Co-Convener(s): Benard, P.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: LES MUSES
Chairperson: Benard, P.

OA319 ANDREJCZUK, M.
Modelling of mesoscale phenomena on parallel and vector computer

OA320 **LINDSKOG, M.**; ENGARDT, M.
the performance of the HIRLAM model in the tropics and sulphur transport studies based on its forecasts

OA321 MELONEK, M,; JAKUBIAK, B.
Implementation of the MOS technique for improved mesoscale forecasts

OA322 **READ, P.L.**; THOMAS, N.P.J.
Validation of numerical advection schemes via simulations of baroclinically unstable flow in the laboratory

OA323 **KLINGSPOHN, M.**; MÖLDERS, N.; RAABE, A.
Testing of an explicit subgrid-scheme within the Deutschland-Model

OA324 LINDH, O.; **NILSSON, S.**
RIPP; a new forecast production system for increased efficiency and automatization in Sweden

OA325 **BRUNET, G.**; RITCHIE, H.; WANG, R.; BOER, G.; ZWIERS, F.; SHENG, J.; PLANTE, A.; GAGNON, N.; VAUTARD, R.; PLAUT, G.; DEROME, J.
A multi-model hybrid approach to seasonal prediction: optimising a probalistic forecast

OA26 Will the probabilistic approach be the future for numerical weather predictions?

Convener: Buizza, R.
Co-Convener(s): Toth, Z.
Thursday, 23 April 1998
Lecture Room: M2
Chairperson: Smith, L.

14:00 REED, D.N.
The future of practical weather forecasting in an uncertain world (Solicited Paper)

14:30 **DU, J.**; TRACTON, M.S.; TOTH, Z.; JUANG, H.
Short-Range Ensemble Forecasting (SREF) at NCEP/EMC

14:45 LEGG, T.P.
Probability forecasting for the National Meteorological Centre in Bracknell

15:00 LANGFJELL, I.; **IVERSEN, T.**; BARKMEIJER, J.; PALMER, T.
On ensemble prediction in a limited area

15:15 **HERSBACH, H.**; MUREAU, R.; OPSTEEGH, J.D.; BARKMEIJER, J.
Application of regional singular vectors to the ensemble prediction system

OA

15:30 ZHU, Y.; **TOTH, Z.**; KALNAY, E.
Probabilistic quantitative precipitation forecasts (PQPF) based on the NCEP global ensemble

15:45 **GILMOUR, I.**; SMITH, L.A.
Towards internally consistent ensembles in NWP

16:00 **HANSEN, J.**; SMITH, L.A.; GILMOUR, I.
Towards better initial conditions: variational assimilation, nonlinear noise reduction, and i-shadowing

16:15 BRINI, F.; PASQUERO, C.; TREVISAN, A.
An economical alternative to four-dimensional variational assimilation

16:30 PIRES, C.; VAUTARD, R.
Comparing long-range, statistical, dynamical and hybrid forecasts in the atmosphere

16:45 **DOBLAS-REYES, F.J.**; DEQUE, M.
Long-range probabilistic forecasts in multimodel ensembles

17:00 Joint Discussion for NP2.1 and OA26
TOTH, Z.; BUIZZA, R.; TALAGRAND, O.; MULLEN, S.; SMITH, L.
Open discussion on ensemble forecasting: Where are we and where do we go?

17:30 END OF SESSION

OA26 Will the probabilistic approach be the future for numerical weather predictions? - Poster Session

Convener: Buizza, R.
Co-Convener(s): Toth, Z.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:30 - 19:00
Poster Area: LES MUSES

OA326 YUSHKOV, V.P.
Will the probabilistic approach be the future for predictions?

OA327 SILVA, E.D.
Using nonparametric statistics to measure centrality of rainfall distribution

OA328 CRAIG, G.C.
Ensemble properties of cumulus convection - some inferences from statistical mechanics

OA27 Marine tropospheric chemistry

Convener: Brauers, T.
Co-Convener(s): Schrems, O.
Thursday, 23 April 1998
Lecture Room: GALLIENI 5
Chairperson: Hofzumahaus, A.

08:30 KANAKIDOU, M.
Chemical processes and interaction with transport in the marine troposhere. An overview (Solicited Paper)

09:00 SCHREMS, O.
The ALBATROSS campaign 1996: an atmospheric chemistry study over the northern and southern Atlantic (overview)

09:15 Poster Summaries of 3 min. per summary

BRAUERS, T.; DORN, H.-P.; SCHREMS, O.; WELLER, R.
The ALBATROSS Field campaign: setup and meteorological conditions

GAUTROIS, M.; KOPPMANN, R.; LECKEBUSCH, G.; REINER, A.; SPETH, P.
The latitudinal distribution of hydrocarbons and halocarbons during the ALBATROSS campaign

FISCHER, R.G.; BALLSCHMITER, K.
Alkyl nitrates and multifunctional alkyl nitrates in remote Atlantic air

KASTLER, J.; BALLSCHMITER, K.
Alkyl nitrates - trace constituents of the marine troposphere

DÖRRLER, S.; BALLSCHMITER, K.
Levels and patterns of semivolatile organohalogenated compounds in marine air of the Atlantic Ocean

NOTHOLT, J.; SCHREMS, O.
Total column density measurements of atmospheric trace gases by solar absorption spectroscopy

SCHÄFER, J.; BEYERLE, G.; **SCHREMS, O.**
Lidar measurments of tropospheric water vapour over the Atlantic during the ALBATROSS campaign

BABOUKAS, E.; SCIARE, J.; BARDOUKI, H.; GWGOU, A.; MIHALOPOULOS, N.
Spatio-temporal variability of ionic composition of aerosols, DMSO and Aitken nuclei during the Albatross campaign

RAIROUX, P.; NEUBER, R.; SCHREMS, O.; FREY, S.; WÖSTE, L.
Lidar observation of aerosol in the troposphere between 20°N to 30°S above the Atlantic Ocean

09:45 Change over

GOGOU, A.; MIHALOPOULOS, N.; STEPHANOU, E.G.
Organic compostion of marine aerosols over the Atlantic Ocean: study of their origin and occurence during the ALBATROSS campaign

KRISCHKE, U.; STAUBES, R.; JAESCHKE, W.
Measurements of SO_2 and NSS-SO_4^{2-} over the Atlantic ocean during ALBATROSS: a case study on the kinetics of the SO_2 oxidation in the marine boundary layer

SCIARE, J.; BABOUKAS, E.; KOUVARAKIS, G.; BELVISO, S.; MIHALOPOULOS, N.
Spatio-temporal variability of atmospheric DMS, sulfur dioxide, nitric acid, ammonia and organic acids during the Albatross campaign

BELVISO, S.; MIHALOPOULOS, N.; **SCIARE, J.**; CLAUSTRE, H.; MARTIN, V.; DENIS, M.
Broad scale variability of DMS in the Atlantic. Assessment of some controlling factors

BELVISO, S.; MIHALOPOULOS, N.; SCIARE, J.
First Atlantic meridional transect of sea surface DMS concentration along 30°W with 15 km of spatial resolution

BRAUERS, T.; KRAUS, A.; HOFZUMAHAUS, A.; WELLER, R.
Measurement of the HOx ($OH+HO_2$) production rate in the boundary layer of the Atlantic Ocean

* not included in the Book of Abstracts

HAUSMANN, M.; BRAUERS, T.; BISTER, A.; DORN, H.-P.
Measurements of the OH concentration in the boundary layer of the Atlantic Ocean by differential optical absorption spectroscopy
HOLLAND, F.; HOFZUMAHAUS, A.; SEDLACEK, M.; WEBER, M.
Measurements of the OH and HO_2 concentrations in the marine boundary layer during ALBATROSS using laser-induced fluorescene spectroscopy

10:15 Change over

BURKERT, J.; ANDRES HERNANDEZ, M.D.; STÖBENER, D.; BURROWS, J.P.
Peroxy radical measurements in the marine boundary layer
DORN, H.-P.; BISTER, A.; BRAUERS, T.; HAUSMANN, M.; HOFZUMAHAUS, A.; HOLLAND, F.; SEDLAZEK, M.; WEBER, M.
Comparison of long-path laser absorption and laser induced fluorescence measurements of OH radicals in the marine Atlantic boundary layer
TÜG, H.; GROSS, CHR.
UV-radiation measurements over northern and southern Atlantic
BISTER, A.; BRAUERS, T.; DORN, H.-P.; HAUSMANN, M.; WELLER, R.; KRISCHKE, U.
Comparison fo HCHO and SO_2 measurements inn the boundary layer of the Atlantic Ocean
WELLER, R.; SCHREMS, O.; BODDENBERG, A.; GÄB, S.; LEIBROCK, E.; JUNKERMANN, W.
Hydroperoxides and formaldehyde in the marine boundary layer of the Atlantic (48°N-35°S) measured during the Albatross Campaign
WEITKAMP, C.; GLAUER, J.; KÖHLER, S.; BISLING, P.; RASCHKE, E.; KAUFELD, L.; WELLER, R.; SCHREMS, O.
Ozone height-profile measurements over the Atlantic Ocean along the 30° W meridian within the Albatross project
KANAKIDOU, M.; SCIARE, J.; BABOUKAS, E.; BELVISO, S.; BRAUERS, T.; DORN, H.P.; KRISCHKE, U.; MIHALOPOULOS, N.
How well can we simulate the atmospheric chemistry of the marine boundary layer of the Atlantic Ocean?
GROS, V.; POISSON, N.; MARTIN, D.; KANAKIDOU, M.; BONSANG, B.
Factors controlling the observed seasonal variation of surface ozone at Amsterdam Island

10:45 END OF SESSION

OA27 Marine tropospheric chemistry - Poster Session

Convener: Brauers, T.
Co-Convener(s): Schrems, O.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: LES MUSES

OA400 **BRAUERS, T.**; DORN, H.-P.; SCHREMS, O.; WELLER, R.
The ALBATROSS Field campaign: setup and meteorological conditions

OA401 **GAUTROIS, M.**; KOPPMANN, R.; LECKEBUSCH, G.; REINER, A.; SPETH, P.
The latitudinal distribution of hydrocarbons and halocarbons during the ALBATROSS campaign

OA402 **FISCHER, R.G.**; BALLSCHMITER, K.
Alkyl nitrates and multifunctional alkyl nitrates in remote Atlantic air

OA403 **KASTLER, J.**; BALLSCHMITER, K.
Alkyl nitrates - trace constituents of the marine troposphere

OA404 **DÖRRLER, S.**; BALLSCHMITER, K.
Levels and patterns of semivolatile organohalogenated compounds in marine air of the Atlantic Ocean

OA405 NOTHOLT, J.; SCHREMS, O.
Total column density measurements of atmospheric trace gases by solar absorption spectroscopy

OA406 SCHÄFER, J.; BEYERLE, G.; **SCHREMS, O.**
Lidar measurments of tropospheric water vapour over the Atlantic during the ALBATROSS campaign

OA407 BABOUKAS, E.; SCIARE, J.; BARDOUKI, H.; GWGOU, A.; MIHALOPOULOS, N.
Spatio-temporal variability of ionic composition of aerosols, DMSO and Aitken nuclei during the Albatross campaign

OA408 **RAIROUX, P.**; NEUBER, R.; SCHREMS, O.; FREY, S.; WÖSTE, L.
Lidar observation of aerosol in the troposphere between 20°N to 30°S above the Atlantic Ocean

OA409 **GOGOU, A.**; MIHALOPOULOS, N.; STEPHANOU, E.G.
Organic compostion of marine aerosols over the Atlantic Ocean: study of their origin and occurence during the ALBATROSS campaign

OA411 **KRISCHKE, U.**; STAUBES, R.; JAESCHKE, W.
Measurements of SO_2 and NSS-SO_4^{2-} over the Atlantic ocean during ALBATROSS: a case study on the kinetics of the SO_2 oxidation in the marine boundary layer

OA412 SCIARE, J.; BABOUKAS, E.; KOUVARAKIS, G.; BELVISO, S.; MIHALOPOULOS, N.
Spatio-temporal variability of atmospheric DMS, sulfur dioxide, nitric acid, ammonia and organic acids during the Albatross campaign

OA413 BELVISO, S.; MIHALOPOULOS, N.; **SCIARE, J.**; CLAUSTRE, H.; MARTIN, V.; DENIS, M.
Broad scale variability of DMS in the Atlantic. Assessment of some controlling factors

OA414 BELVISO, S.; MIHALOPOULOS, N.; SCIARE, J.
First Atlantic meridional transect of sea surface DMS concentration along 30°W with 15 km of spatial resolution

OA415 **BRAUERS, T.**; KRAUS, A.; HOFZUMAHAUS, A.; WELLER, R.
Measurement of the HOx ($OH+HO_2$) production rate in the boundary layer of the Atlantic Ocean

OA416 **HAUSMANN, M.**; BRAUERS, T.; BISTER, A.; DORN, H.-P.
Measurements of the OH concentration in the boundary layer of the Atlantic Ocean by differential optical absorption spectroscopy

OA417 **HOLLAND, F.**; HOFZUMAHAUS, A.; SEDLACEK, M.; WEBER, M.
Measurements of the OH and HO_2 concentrations in the marine boundary layer during ALBATROSS using laser-induced fluorescene spectroscopy

OA418 **BURKERT, J.**; ANDRES HERNANDEZ, M.D.; STÖBENER, D.; BURROWS, J.P.
Peroxy radical measurements in the marine boundary layer

OA419 **DORN, H.-P.**; BISTER, A.; BRAUERS, T.; HAUSMANN, M.; HOFZUMAHAUS, A.; HOLLAND, F.; SEDLAZEK, M.; WEBER, M.
Comparison of long-path laser absorption and laser induced fluorescence measurements of OH radicals in the marine Atlantic boundary layer

OA420 TÜG, H.; GROSS, CHR.
UV-radiation measurements over northern and southern Atlantic

OA421 **BISTER, A.**; BRAUERS, T.; DORN, H.-P.; HAUSMANN, M.; WELLER, R.; KRISCHKE, U.
Comparison fo HCHO and SO_2 measurements inn the boundary layer of the Atlantic Ocean

OA422 **WELLER, R.**; SCHREMS, O.; BODDENBERG, A.; GÄB, S.; LEIBROCK, E.; JUNKERMANN, W.
Hydroperoxides and formaldehyde in the marine boundary layer of the Atlantic (48°N-35°S) measured during the Albatross Campaign

OA423 **WEITKAMP, C.**; GLAUER, J.; KÖHLER, S.; BISLING, P.; RASCHKE, E.; KAUFELD, L.; WELLER, R.; SCHREMS, O.
Ozone height-profile measurements over the Atlantic Ocean along the 30° W meridian within the Albatross project

OA424 KANAKIDOU, M.; SCIARE, J.; BABOUKAS, E.; BELVISO, S.; BRAUERS, T.; DORN, H.P.; KRISCHKE, U.; MIHALOPOULOS, N.
How well can we simulate the atmospheric chemistry of the marine boundary layer of the Atlantic Ocean?

OA425 **GROS, V.**; POISSON, N.; MARTIN, D.; KANAKIDOU, M.; BONSANG, B.
Factors controlling the observed seasonal variation of surface ozone at Amsterdam Island

European Geophysical Society

Inviting the scientists of the world to participate in the

Millennium Conference on Earth, Planetary & Solar Systems Sciences

- 25th General Assembly -

Fortezza da Basso, Florence, Italy
3-7 April 2000

Join this unique celebration of the past and the new millennium in the capital of Renaissance and in the beauty of Tuscany.

Suggestions regarding the scientific programme and any inquiries should be addressed to:

EGS Office
Max-Planck-Str. 13
37191 Katlenburg-Lindau
Germany

Tel: +49-5556-1440
Fax: +49-5556-4709
EGS@COPERNICUS.ORG
http://www.copernicus.org/EGS/EGS.html

Solar-Terrestrial Sciences

ST1 Review session on solar-terrestrial sciences

Convener: Fabian, P.
Co-Convener(s): Hapgood, M.A.
Monday, 20 April 1998
Lecture Room: M7
Chairperson: Hapgood, M.A.

11:00 HARRISON, R.A.
Our new Sun (Solicited Paper)
11:25 LOCKWOOD, M.; HAPGOOD, M.A.
The structure of the dayside magnetopause and of dayside auroral precipitations due to pulsed magnetopause reconnection (Solicited Paper)
11:50 SAUVAUD, J.-A.
The nightside magnetospheric tail (Solicited Paper)
12:15 ALEXEEV, I.I.
Estimation of the amount of energy transferred from solar wind to the Earth magnetosphere and ionosphere
12:30 ZIOMAS, I.
Ozone layer and solar UV (Solicited Paper) *
12:55 **KRIVOLUTSKY, A.**; PEREJASLOVA, N.; BAZILEVSKAYA, G.
Global response of ozone to cosmic influence
13:10 END OF SESSION
17:00 Opening
19:30 Reception

ST1 Review session on solar-terrestrial sciences - Poster Session

Convener: Fabian, P.
Co-Convener(s): Hapgood, M.A.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 3 - ST

ST001 PEROV, S.P.; KRUCHENITSKY, G.M.; ZVIYAGINTSEV, A.M.; TIMASHEV, S.F.; KOSTYUCHENKO, I.G.
Short- and long-term ozone layer variations and their correlations with solar activity
ST002 SOUF ELJIL, R.; GAK, E.Z.
The solar radiation and models of control processes on water storage dynamics in North African conditions
ST002A AVAKYAN, S.V.
Ionizing radiation of the Sun and solar-terrestrial connections

---

Attend the Business Meeting of your Section

on Wednesday, 22 April, 12.00-14.00, Lecture Room M8

ST2 Open session on the middle atmosphere (co-sponsored by OA) I

Convener: Dameris, M.
Co-Convener(s): Krüger, B.C.
Monday, 20 April 1998
Lecture Room: M7
Chairperson: Dameris, M.

14:00 **LÜBKEN, F.-J.**; JARVIS, M.J.; JONES, G.O.L.
First in situ temperature measurements in the summer mesosphere at Antarctic latitudes (Solicited Paper)
14:30 **SIEBERT, J.**; FRICKE, K.H.; STEBEL, K.; BARABASH, V.; KIRKWOOD, S.
Simultaneous measurements of noctilucent clouds and polar mesosphere summer echoes above northern Scandinavia in August 1997
14:45 **HOFFMANN, P.**; SINGER, W.; KEUER, D.; BREMER, J.; RÜSTER, R.
Mean diurnal variations of PMSE and winds as measured with the ALOMAR-SOUSY radar during the summer months from 1994 to 1997
15:00 **LANGE, M.**; SCHMINDER, R.; JACOBI, CH.; BAIER, F.; GÜNTHER, G.
Simulation of middle atmosphere winds and comparison with long-term mesopause wind measurments at Collm Observatory (52°N 15°E)
15:15 **MITCHELL, N.J.**; HOWELLS, V.ST.C.
Variances and spectra of gravity-wave vertical velocities at mesopause heights
15:30 **HOWELLS, V.ST.C.**; MITCHELL, N.J.; MULLER, H.G.
Climatology and tidal interactions of short-period gravity waves at meteor heights
15:45 **JACOBI, CH.**; SCHMINDER, R.; KÜRSCHNER, D.
The quasi 16-day wave in the summer midlatitude mesopause region and its dependence on the equatorial quasi-biennial oscillation
16:00 **SOUPRAYEN, C.**; HAUCHECORNE, A.; GARNIER, A.; HERTZOG, A.
Middle atmosphere winds at Observatoire de Haute-Province (44°N) by Doppler rayleigh lidar: seasonal and planetary scale variability
16:15 **RÜSTER, R.**; NASTROM, G.D.; SCHMIDT, G.
Radar measurements of fine structures observed in the lower atmosphere
16:30 END OF PART I
17:00 Opening
19:30 Reception

ST2 Open session on the middle atmosphere (co-sponsored by OA) II

Convener: Dameris, M.
Co-Convener(s): Krüger, B.C.
Tuesday, 21 April 1998
Lecture Room: M7
Chairperson: Krüger, B.C.

08:30 **PAWSON, S.**; COY, L.; DOUGLASS, A.; ROOD, R.
The southern hemisphere winter of 1997 (Solicited Paper)
09:00 **NAUJOKAT, B.**; LENSCHOW, R.; PAWSON, S.
A meteorological review of the stratospheric winter 1997/98

09:15 **WAUGH, D.W.**; RANDEL. W.J.
Climatology of Arctic and Antarctic polar vortices using elliptical diagnostics

09:30 **WHITEWAY, J.A.**; DUCK, T.J.; CARSWELL, A.I.
Measurements of gravity wave activity and thermal structure in the Arctic stratospheric vortex

09:45 **KRÜGER, K.**; LANGEMATZ, U.; PAWSON, S.
The "16-day" eastward-travelling wavenumber 2 in the stratosphere: a comparison between the hemispheres

10:00 **CHOI, W.**; GRANT, W.B.; LEE, H.; LEE, K.-M.; PARK, J.H.
Evidence of the secondary meridional circulation associated with the quasi-biennial oscillation observed in the distributions of trace species

10:15 MARQUARDT, C.
Stratospheric low frequency variability in mid and high latitudes: "triple peak spectra" or "biennial oscillation"?

10:30 BREAK

Chairperson: N.N.

11:00 ETLING, D.; GELHARDT, F.; SCHILLING, V.
Lee-waves in the stratosphere

11:15 **KRIVOLUTSKY, A.**; BIRYUSHOV, B.; VYUSHKOVA, T.; VARGIN, P.; PANCHEVA, D.
Transient planetary waves structure in the middle atmosphere during 1991-1992: UARS data analysis and numerical model runs

11:30 **HALENKA, T.**; MLCH, P.
Global stratospheric circulation analysis by means of spectral decomposition

11:45 **FRANZEN, A.**; GROSSMANN, K.U.; KÜLL, V.; OFFERMANN, D.; PREUSSE, P.; SPANG, R.
Atmospheric trace gas correlations as measured by CRISTA

12:00 BACMEISTER, J.T.; **EIDMANN, G.**; KÜLL, V.; OFFERMANN, D.; PREUSSE, P.
Comparison of CRISTA I data with ER-2 measurements with the help of a trajectory model

12:15 PANCHEVA, D.; LASTOVICKA, J.
Planetary scale waves observed in the lower ionosphere durng CRISTA I campaign

12:30 **KOUKER, W.**; OFFERMANN, D.; KÜLL, V.; REDDMANN, TH.; RUHNKE, R.
Transport across the subtropical barrier as observed by the CRISTA experiment and the KASIMA/CTM

12:45 **GRIEGER, N.**; SCHMITZ, G.
On the vertical wave-energy propagation from troposphere to stratosphere in different geographical regions

13:00 **PRASAD, S.S.**; ZIPF, E.C.
Emerging new atmospheric chemistry of nitrous oxide and its implications (Poster)

13:05 LUNCH

Chairperson: Dameris, M.

14:00 **AUSTIN, J.**; BUTCHART, M.; GALLANI, M.; SCAIFE, A.A.
Predicted stratospheric climate change from the UK meteorological Office's unified model

14:15 **LANGEMATZ, U.**; ERLEBACH, P.
Stratospheric sudden warmings in the Berlin TSM GCM, part I: sensitivity to radiative heating rates and resolution

14:30 **BRAESICKE, P.**; LANGEMATZ, U.
Stratospheric sudden warmings in the Berlin TSM GCM. Part 2: diagnosis using the TEM formulation

14:45 **TIMMRECK, C.**; FEICHTER, J.; GRAF, H.-F.
GCM simulations of stratospheric background aerosol

15:00 **RICCIARDULLI, L.**; GARCIA, R.R.
On the excitation of equatorial waves by deep convection in the NCAR community climate model

15:15 **BAIER, F.**; GÜNTHER, G.
Sensitivity studies of the winter middle atmosphere with an adjoint mechanistic model

15:30 BECK, A.; LEDER, S.
The evolution of the stratosphere in a 3-D global gridpoint model at the presence of steady state ENSO warm and ENSO cold forcing

15:45 **SCAIFE, A.A.**; JAMES, I.N.; SWINBANK, R.
Response of the stratosphere to interannual variability in the troposphere

16:00 **PEUCH, V.-H.**; LEFEVRE, F.; SIMON, P.
Initial conditions and spin-up: comparing strategies for use in CTMS

16:15 RIISHOJGAARD, L.P.; STAJNER, I.
A comprehensive three-dimensional assimilation system for ozone and other trace constituents

16:30 END OF SESSION

ST2 Open session on the middle atmosphere (co-sponsored by OA) - Poster Session

Convener: Dameris, M.
Co-Convener(s): Krüger, B.C.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 3 - ST

ST003 **PRASAD, S.S.**; ZIPF, E.C.
Emerging new atmospheric chemistry of nitrous oxide and its implications

ST004 KRÜGER, K.
Documentation of the eastward-travelling planetary wavenumber 2 in the northern stratosphere: 1972-1997

ST005 MÜLLER, K.M.; **BRAESICKE, P.**; LANGEMATZ, U.; PAWSON, S.; ZHONG, W.
Tropical waves in the Berlin TSM GCM: an intercomparison between two different vertical resolutions

ST006 **PIEL, A.**; NAUJOKAT, B.; BRAESICKE, P.
An examination of very cold periods in the lower and middle stratosphere of the northern hermispheric winter

ST007 BECK, A.
Mass exchange across the subtropical barrier in a 3-D global model during a simulated sudden stratospheric warming

ST008 **RECHOU, A.**; BARABASH, V.; CHILSON, P.; KIRKWOOD, S.; SAVITSKAYA, S.; STEBEL, K.
Analyse of the waves during fronts passages

ST009 BEYERLE, G.; SCHÄFER, H.-J.; LEBLANC, T.; MCDERMID, I.S.; SCHREMS, O.
Dual wavelength polarization lidar observations at tropical latitudes during the ALBATROSS campaign 1996

ST010 **RICAUD, PH.**; DE LA NOE, J.; WATERS, J.W.; FROIDEVAUX, L.; CHIPPERFIELD, M.
Temporal evolution of stratospheric chlorine monoxide over alpine stations

ST011 **URBAN, J.**; BREMER, H.; EYRING, V.; KÜLLMANN, K.; KÜNZI, K.; WOHLGEMUTH, J.; GOEDE, A.; DE JONGE, A.; KLEIPOOL, Q.; WHYBORN, N.; HETZHEIM, H.; SCHWAAB, G.; CHIPPERFIELD, M.P.
Trace gas measurements in the Arctic winter stratosphere with the airborne submillimeter SIS radiometer

ST012 **JOHNSTON, J.C.**; RÖCKMANN, T.; BRENNINKMEIJER, C.A.M.
Laboratory and modelling studies of CO_2 + $O(^1D)$ isotopic exchange

ST013 **HARTMANN, G.K.**; DEGENHARDT, W.; HAROGH, P.; JARCHOW, C.; RICHARDS, M.L.; LI, S.
Water in the atmosphere and mesosphere

ST014 **JACOBI, CH.**; SCHMINDER, R.; KÜRSCHNER, D.; KASHCHEYEV, B.L.; OLEYNIKOV, A.N.
Measurements of summer mesopause region zonal winds over central and eastern Europe

ST015 **BEARD, A.G.**; MITCHELL, N.J.; WILLIAMS, P.J.S.
Bispectral analysis of non-linear tidal/planetary-wave coupling in the mesosphere and lower thermosphere

ST016 GOKOV, A.M.; **TYRNOV, O.F.**
Midlatitudinal lower ionosphere disturbances cuased by natural sources

ST017 GOKOV, A.M.; **TYRNOV, O.F.**
Ionospheric parameter variations in the lower D region during mangetic storm

ST018 **ERIKSEN, T.**; HOPPE, U.-P.; THRANE, E.V.; BLIX, T.A.
In-situ measurements of neutral atmosphere dynamics in the polar middle atmosphere

ST3 Open session on the ionosphere and thermosphere - Poster Session

Convener: Fontaine, D.
Co-Convener(s): Schlegel, K.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 3 - ST

ST091 **BUCHERT, S.C.**; ENDO, M.; OGAWA, Y.; FUJII, R.; NOZAWA, S.; WATANABE, S.; YOSHIDA, N.
Field-aligned ion flow events observed by the EISCAT ESR radar

ST092 TRISKOVA, L.; TRUHLIK, V.; SMILAUER, J.
Distribution of major ions in the outer ionosphere for the maximum of the 22nd solar cycle (low and middle latitudes)

ST093 GUIO, P.
A simple model for the velocity distribution of particles in a plasma with temperature gradient

ST094 **DAVIES, J.A.**; LESTER, M.; MILAN, S.E.; ROBINSON, T.R.; YEOMAN, T.K.
A statistical comparison of measured velocities from the CUTLASS system and the EISCAT UHF radar

ST095 DEL POZO, C.F.; WILLIAMS, P.J.S.; NIELSEN, E.
Simultaneous EISCAT/STARE observations of the unstable E-region

ST096 **KIM, V.P.**; HEGAI, V.V.
The structure of the night-time ionospheric E-region in the subauroral intense electric field strip taking into account the real tilte of geomagnetic force lines

ST097 KHALIPOV, V.L.; STEPANOV, A.E.; ZIKRACH, E.K.
The polar blobs by Yakut meridianal chain ionosonde data

ST098 MA, S.Y.; LIU, H.X.; SCHLEGEL, K.; XU, J.S.
Auroral thermosphere heating and electron density depletion in the F-region at high- and mid-latitudes during two intense magnetic storms

ST099 **SZÖCS, H.**; SZÖCS, G.M.
Contributions to modelling of coupling between ionosphere and interplanetary magnetic field

ST100 **PAVLOV, A.V.**; BUONSANTO, M.J.
Anomalous electron density events in the quiet summer ionosphere at solar minimum over Millstone Hill

ST101 **BENCZE, P.**; POOR, A.; SOL, G.; ALBERCA, L.F.
Long-term variation of the height of the maximum electron density in the ionosphere

ST102 BOSKA, J.; **SAULI, P.**
Height dependence of the gravity wave activity calculated from rapid sequence ionospheric vertical sounding

ST103 **LIU, J.Y.**; SHIAO, C.C.; TSAI, L.C.; LIU, CH.; KUO, F.S.; LUE, H.Y.; HUANG, C.M.
Vertical phase and group velocities of ionospheric gravity waves derived from ionograms

ST104 MARTYNENKO, S.I.
Coupling between temporal and spatial scales and modelling disurbances caused by external electric field in the lower ionosphere

ST105 BLANC, E.; FARGES, T.; MAMADOU, S.
Effects of a magnetic storm on the equatorial ionosphere, observed by HF radar during the IEEY

ST106 FARGES, T.
Interpretation of equatorial ionospheric irregularities observed by HF radar in the upper E region

ST107 VILA, P.M.
Small-scale structures of quiet day F2 layer ionisation density at very low magnetic latitudes

ST108 **SCHERLIESS, L.**; FEJER, B.G.
Variability of equatorial F-region vertical plasma drifts

ST109 **THIEMANN, H.**; MAYER, G.; PIEL, A.
First results of low-latitude rocket project DEOS: Dynamics of the Equatorial ionosphere Over SHAR

ST111 SIZOVA, L.
Critical frequency foF_2 variations at equator

ST112 KUNITSYN, V.E.; ANDREEVA, E.S.; RAZINKOV, O.G.; ZAKHAROV, V.I.
Methods of the nearspace environment tomography

ST113 **LILENSTEN, J.**; MOISAN, E.; LATHUILLERE, C.; PIBARET, B.; KOFMAN, W.
Predictor scheme for the EISCAT data processing

ST114 CHERNYAKOV, S.M.; EVSTAFJEV, O.V.
A digital ionospheric station in the observatory Loparskaya

ST115 **KOSCH, M.J.**; HAGFORS, T.; KOHSIEK, A.; REES, D.
The MPAE Fabry-Perot interferometer for neutral atmosphere and ionosphere interaction studies with EISCAT

ST116 SCHLEGEL, K.; KOHSIEK, A.; KOSCH, M.
A new method for advanced Fabry-Perot data processing

ST117 **SCHNELLER, W.J.**; KERR, R.B.; NOTO, J.
New near-IR experimental techniques to determine thermospheric composition and dynamics

ST118 **NOTO, J.**; KERR, R.B.; SCHNELLER, W.J.; RUDY, R.J.; HECHT, J.H.
Production of metastable helium in the thermosphere by He^+ recombination

ST119 **WITASSE, O.**; LILENSTEIN, J.; LATHUILLERE, C.; BLELLY, P.L.
Atomic oxygen forbidden lines modelized during a WINDII-EISCAT coordinated measurements

ST120 KRASNOPOLSKY, V.A.
HST detection of terrestrial deuterium

ST121 PAVLOV, A.V.
New electron energy transfer and cooling rates by excitation of N_2 and O_2

ST122 **LIU, J.Y.**; ROTTGER, J.; PAN, C.J.; LIU, C.H.; RIETVELD, M.T.; LEE, C.C.
VHF radar and MF/HF dynasonde observations during polar mesosphere summer echo conditions at EISCAT

ST123 ASTIN, I.
Descent rates in PMSE type layers observed by the UK MST radar at Aberystwyth

ST124 JACOBI, CH.
Nonlinear interaction of planetary waves and tides as seen from midlatitude upper mesosphere/lower thermosphere wind measurements at Collm, Germany (52°N, 15°E)

ST125 **JACOBI, CH.**; SCHMINDER, R.; KÜRSCHNER, D.; HOFFMANN, P.; SINGER, W.; KASHCHEYEV, B.L.; OLEYNIKOV, A.N.; FAHRUTDINOVA, A.N.; SOLNTSEV, R.N.; SOLOVJEVA, T.V.; PORTNYAGIN, YU.I.
Climatology of the mesopause region semidiurnal tide over central and eastern Europe

ST126 **BELYAEV, P.P.**; LISOV, A.A.; BELOVA, N.I.; YAKUNIN, M.N.
Observations of wave motions in the mesopause of Earth's atmosphere with using of very low frequency signals

ST127 MIRKOTAN, S.F.; **PANCHELUGA, V.A.**
Percolation model of F2 layer critical frequency

ST128 GOKOV, A.M.; MARTYNENKO, S.I.; ROZUMENKO, V.T.; TSYMBAL, A.M.; **TYRNOV, O.F.**
Variations in the electron collision frequency and electric fields in the lower ionosphere at middle latitudes

ST129 CHERNOGOR, L.F.; GARMASH, K.P.; ROZUMENKO, V.T.; **TYRNOV, O.F.**
On the possibility of energetic particle precipitation from the magnetosphere into the middle latitude ionosphere

ST130 CHERNOGOR, L.F.; GARMASH, K.P.; KOSTROV, L.S.; LEUS, S.G.; POKHIL'KO, S.N.; ROZUMENKO, V.T.; TSYMBAL, A.M.; **TYRNOV, O.F.**
HF Doppler probing of ionospheric perturbations which accompanied the space shuttle Atlantis launch with a geomagnetic storm as a background

ST131 CHERNOGOR, L.F.; GARMASH, K.P.; GRITCHIN, A.I.; KOSTROV, L.S.; ROZUMENKO, V.T.; TSYMBAL, A.M.; **TYRNOV, O.F.**
Observations of ionospheric D region perturbations which accompanied the space shuttle orbiter Atlantis launch with a geomagnetic storm as a background by partial reflection rechnique

ST132 KIM, V.P.; HEGAI, V.V.
Night-time F2-region electron density changes due to acoustic gravity waves excited before strong earthquakes

ST133 CHERNOGOR
Infrasound effects of earthquakes and their precursors on parameters of the ionosphere and magnetosphere

ST134 ALIMOV, O.A.; NEGMATULLAEV, S.H.
Usage of meteorologic and ionospheric data for thepurposes of earthquake predictions

ST135 **KUZNETSOV, V.V.**; KHOMUTOV, S.Y.; PLOTKIN, V.V.; GREKHOV, O.E.; PAVLOV, A.F.; FEDOROV, A.N.
Seismo-ionospheric effects under the influence of the power seismovibrator to the lithosphere

ST136 MITCHELL, C.N.; PRYSE, S.E.; KERSLEY, L.; WILLSON, C.A.; CANNON, P.
Routine tomographic imaging of the ionosphere over UK *

* not included in the Book of Abstracts

ST3 Open session on the ionosphere and thermosphere

Convener: Fontaine, D.
Co-Convener(s): Schlegel, K.
Friday, 24 April 1998
Lecture Room: M6
Chairperson: Fontaine, D.

10:45 **FEJER, B.G.**; SCHERLIESS, L.
Magnetospheric and ionospheric disturbance dynamo effects in the low- and mid-latitude ionosphere (Solicited Paper)

Ionospheric effects

11:15 **LILENSTEN, J.**; WITASSE, O.
Electron and ion temperature dependence of the electric field above EISCAT over a full solar cycle

11:30 **PRYSE, S.E.**; KERSLEY, L.; SMITH, A.M.; MITCHELL, C.N.; BERRY, S.T.
Electron density signatures of high-latitude plasma processes

11:45 THOROLFSSON, A.; CERISIER, J.C.
Flux transfer events in the ionosphere: model and data

12:00 **FUJII, R.**; ENDO, M.; OGAWA, Y.; BUCHERT, S.C.; NOZAWA, S.; WATANABE, S.; YOSHIDA, N.
Field-aligned ion flow events from the ionosphere observed by the EISCAT VHF radar

12:15 **FORME, F.**; FONTAINE, D.
Enhanced ion acoustic fluctuations and ion outflows in the upper ionosphere
12:30 **STROMME, A.**; BJORNA, N.; LOVHAUG, U.P.; VAN EYKEN, A.P.
An attempt to interpret non-Maxwellian spectra from the EISCAT Svalbard Radar (ESR)
12:45 **GONZALEZ, S.A.**; SULZER, M.P.
Recent advances in incoherent scatter radar measurement capabilities of the topside ionosphere and plasmasphere at Arecibo Observatory
13:00 LUNCH

Chairperson: Fontaine, D.

14:00 **KOSCH, M.J.**; HONARY, F.; STAMATIOU, N.; HAGFORS, T.
A comparison of auroral optical images, riometer absorption patterns and EISCAT radar data (Solicited Paper)
14:30 **GRYDELAND, T.**; MJOLHUS, E.; BJORNA, N.
Simultaneous observations of enhanced ion spectra and strong plasma lines with the EISCAT UHF radar system
14:45 GUIO, P.
Doppler frequency interpretation of incoherent scatter plasma lines
15:00 **MASSON, A.**; LEFEUVRE, F.; LAGOUTTE, D.; RAUCH, J.L.; ZHAO, Z.YU.
On the involvement of Schumann resonances in high latitudes plasma structuring
15:15 **LOBZIN, V.V.**; PAVLOV, A.V.
Correlations between SAR-arc intensity and solar and geomagnetic activity
15:30 BREAK

Chairperson: Schlegel, K.

Ionosphere-thermosphere coupling

16:00 **KOHSIEK, A.**; KOSCH, M.J.; SCHLEGEL, K.
Comparison of neutral and ion parameters in the high latitude E- and F-region observed by the MPAE-FPI and EISCAT
16:15 **FORBES, J.M.**; PALO, S.; PORTNYAGIN, YU.I.; MAKAROV, N.A.; MERZLYAKOV, E.G.
Intradiurnal oscillations in Antarctic lower thermosphere winds: south pole observations and global implications
16:30 COX, R.M.; ROLLASON, R.M.; PLANE, J.M.C.
An ion-molecule mechanism for the formation of neutral sporadic layers of sodium and iron
16:45 **PALO, S.E.**; ROBLE, R.G.
The quasi-two-day wave in the thermosphere: a study using the time-GCM
17:00 **PEYMIRAT, C.**; RICHMOND, A.D.; EMERY, B.A.; ROBLE, R.G.
Evaluation of the effect of the neutral winds on the inner magnetospheric convection with a magnetosphere-thermosphere-ionosphere electrodynamics general-circulation model
17:15 MÜLLER-WODARG, I.C.F.
Propagation of planetary waves into the thermosphere and ionosphere - a modelling study
17:30 END OF SESSION

ST4 Open session on the magnetosphere I

Convener: Rycroft, M.J.
Co-Convener(s): Sandahl, I.
Thursday, 23 April 1998
Lecture Room: M5
Chairperson: Rycroft, M.J.

14:00 GRAFE, A.
Are our ideas about Dst correct?
14:15 **BOURDARIE, S.A.**; BOSCHER, D.; VACARESSE, A.
A radiation belt model based on convection-diffusion theory including a time dependent magnetic field
14:30 **VACARESSE, A.**; BOSCHER, D.; BOURDARIE, S.
A long term physical model for high energy low altitude protons
14:45 **LEMAIRE, J.F.**; DACHEV, TS.P.; TOMOV, B.T.; MATVIICHUK, YU.N.; KOLEVA, R.T.; SEMKOVA, J.V.; PETROV, V.M.; SHURSHAKOV, V.A.
Overview on the inner magnetosphere variations observed by Lliulin instrument on MIR space station
15:00 **PETRUKOVICH, A.A.**; ZELENYI, L.M.; MUKAI, T.
Multi-spacecraft studies or substorms (Solicited Paper)
15:30 **PEDERSEN, A.**; MOZER, F.S.; RUSSELL, C.T.
Quasistatic electric fields in and near the Northern Cusp
15:45 **ZAKHAROV, V.E.**; MEISTER, C.-V.
Large-scale anomalous resistivity caused by electrostatic ion-cyclotron turbulence in the plasma of the auroral ionosphere
16:00 **HAPGOOD, M.**; LOCKWOOD, M.
Ordering of electron anisotropy in the low-latitude boundary layer
16:15 DEZEEUW, D.L.; **GOMBOSI, T.I.**; GROTH, C.P.T.; MARSHALL, H.G.; SONG, P.; POWELL, K.G.; STOUT, Q.F.
The response of the global magnetosphere-ionosphere system to changing IMF conditions: results from a 3D multiscale simulation
16:30 HERRERO, F.A.; CHORNAY, D.J.
Grazing incidence neutral atom (GINA) surface conversion for the new generation of energetic neutral atom imagers in remote sensing of the magnetosphere
16:45 END OF PART I

ST4 Open session on the magnetosphere - Poster Session

Convener: Rycroft, M.J.
Co-Convener(s): Sandahl, I.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:30 - 19:00
Poster Area: AGORA 3 - ST
Chairperson: Rycroft, M.J.

ST169 BLAGOVESCHENSKY, D.V.; CHERNYAKOV, S.M.
A ground facility for high-latitude magnetospheric sounding
ST170 **HAPGOOD, M.**; LOCKWOOD, M.
The magnetopause transition parameter and the Whalen test

ST171 KOZELOVA, T.V.; KOZELOV, B.V.; LAZUTIN, L.L.; SINGER, H.; RASINKANGAS, R.; KORTH, A.
Substorm differential magnetospheric currents estimated by CRRES data

ST172 KUNITSYN, V.E.; **SILIN, I.V.**
Possibility of tomographic investigation of magnetic reconnection in Earth's magnetosphere

ST173 LEVITIN, A.E.
Magnetic effects of field-aligned currents

ST174 MARTJANOV, S.A.
Penetration of the solar wind plasma into magnetosphere

ST175 MARTJANOV, S.A.
On the selfconsistent profiles in collisionless plasma with adiabatic particle motion

ST177 RAKHMATULIN, R.A.; TABANAKOV, I.V.
On a possible source of global Pi2 pulsations on midlatitudes

ST178 **VACARESSE, A.**; BOSCHER, D.; BOURDARIE, S.; KORTH, A.; FRIEDEL, R.
Linear correlations between the global geomagnetic index Kp, CRRES in flight measurements, and SALAMMBO 2D proton code results

ST179 **YUKHIMUK, A.K.**; YUKHIMUK, V.A.; FEDUN, V.N.; FALKO, O.G.
Nonlinear mechanism of electromagnetic radiation in the magnetized plasma

ST4 Open session on the magnetosphere II

Convener: Rycroft, M.J.
Co-Convener(s): Sandahl, I.
Friday, 24 April 1998
Lecture Room: M5
Chairperson: Rycroft, M.J.

09:00 **MEZIANE, K.**; WILBER, M.; PARKS, G.K.; LIN, R.P.; LARSON, D.E.; MAZELLE, C.; LEQUEAU, D.
Dependence of upstream ion beam densities upon distance from the Earth's bow shock

09:15 DE KEYSER, J.; **ROTH, M.**
AMPTE/IRM observations of magnetic field rotation at the dayside magnetopause

09:30 **IVCHENKO, N.V.**; SIBECK, D.G.; TAKAHASHI, K.
Magnetopause motions as observed by Geotail satellite

09:45 **WILKEN, B.**; ZONG, Q.-G.; DOKE, T.; KOKUBUN, S.; MUKAI, T.; YAMAMOTO, T.; REEVES, G.D.; ULLALAND, S.
CIR related substorm activity observed in the distant tail

10:00 KAYMAZ, Z.
IMP 8 observations of magnetically open magnetotail during equatorial IMFs: implications for reconnection

10:15 SAMSONOV, A.A.; PUDOVKIN, M.I.; **MEISTER, C.V.**
The solar wind flow around the Earth in dependence on the magnetopause boundary conditions

10:30 BREAK

Chairperson: Rycroft, M.J.

11:00 **MAZELLE, C.**; MEZIANE, K.; LE QUEAU, D.; LIN, R.P.; LARSON, D.; PARKS, G.; LEPPING, R.P.
Nongyrotropic gyrating ion distributions and low frequency waves in the Earth's foreshock: a detailed case study

11:15 RUNOV, A.V.; PUDOVKIN, M.I.; **MEISTER, C.-V.**
Dynamics of tail-like current layer caused by anomalous resistivity

11:30 ALEXEEV, I.I.
A model of disturbed magnetosphere

11:45 **ARYKOV, A.A.**; MALTSEV, YU.P.; OSTAPENKO, A.A.
Geomagnetic and solar wind control of magnetospheric mapping

12:00 ALEXEEV, I.I.; **BOBROVNIKOV, S.YU.**
Equilibrium of the magnetosphere and tail current dynamics

12:15 ALEXEEV, I.; **KALEGAEV, V.**
Magnetosheath's magnetic field and magnetopause structure for high magnetic shear

12:30 **FESHCHENKO, E.YU.**; MALTSEV, YU.P.
Magnetospheric plasma pressure restored from the magnetic data

12:45 **MALTSEV, YU.P.**; OSTAPENKO, A.A.
Storm effect on the bulk magnetic field in the magnetosphere

13:00 LUNCH

Chairperson: Rycroft, M.J.

14:00 **MALTSEV, YU.P.**; REZHENOV, B.V.
Effects of B_Z and B_Y IMF components onthe Dst variation

14:15 **SANTOLIK, O.**; PARROT, M.
On the wave propagation and polarization of ELF emissions observed by Freja around local proton gyro-frequency

14:30 **VAGINA, L.I.**; SERGEEV, B.A.
Viewing the dipolarization region during substorm onset

14:45 PUDOVKIN, M.I.; SAMSONOV, A.A.; **MEISTER, C.V.**
The solar wind flow around the Earth in the CGL approximation

15:00 EROKHIN, N.S.; RYCROFT, M.J.; NUNN, D.; ZOLNIKOVA, N.
About phase space occupied by synchronous electrons under the extended second-order gyroresonance interaction with whistler

15:15 DOUDKIN, F.; KOREPANOV, V.; GOUGH, M.P.
Imaging of boundaries in magnetosphere

15:30 END OF SESSION

Annales Geophysicae

the EGS journal for the publication of your contribution to the 23rd General Assembly

ST5 Open session on solar and heliospheric physics I

Convener: Marsden, R.G.
Co-Convener(s): Marsch, E.
Monday, 20 April 1998
Lecture Room: M5
Chairperson: Marsden, R.G.

09:00 OLIVER, R.
Nonlinear fast magnetohydrodynamic waves in solar coronal holes

09:15 **ORLANDO, S.**; PERES, G.; CIARAVELLA, A.; BETTA, R.; REALE, F.; KOHL, J.; NOCI, G.; FINESCHI, S.; ROMOLI, M.; BREKKE, P.; FLUDRA, A.; GURMAN, J.B.; LEMAIRE, P.; SCHUHLE, U.
UVCS/SOHO observations of the polar high speed solar wind

09:30 **FREDVIK, T.**; MALTBY, P.
Temporal variation and redshift of He I 584 A in solar active regions

09:45 **VAN DER LINDEN, R.A.M.**; HOOD, A.W.
Methods for a complete ideal MHD stability study of 1D line-tied coronal loops

10:00 LEBLANC, F.; **HUBERT, D.**
A multispecies multimoment model for the expansion of the solar wind

10:15 **BRANDT, J.**; PETERSEN, C.C.; SNOW, M.; YI, Y.; ULYSSES COMET WATCH
Cometary plasma tails as probes of latitudinal structure in the solar wind

10:30 BREAK

Chairperson: Marsden, R.G.

11:00 BREEN, A.R.; VARLEY, C.A.; WILLIAMS, P.J.S.; LECINSKI, A.; THOMPSON, B.; COLES, W.A.
Interplanetary scintillation measurements of the solar wind during whole Sun month

11:15 **ISSAUTIER, K.**; MEYER-VERNET, N.; MONCUQUET, M.; HOANG, S.
High-speed solar wind structure from Ulysses radio measurements

11:30 BREEN, A.R.; MCKENZIE, J.F.; MORAN, P.J.; VARLEY, C.A.; WILLIAMS, P.J.S.; DEFOREST, C.
Acceleration of the solar wind: measurements of irregularity velocities and model results

11:45 FAHR, H.-J.; **LAY, G.**; NASS, H.U.
Observations of solar and geocoronal LY-α

12:00 **KYRÖLÄ, E.**; SUMMANEN, T.; SCHMIDT, W.; MÄKINEN, T.; BERTAUX, J.L.; LALLEMENT, R.; QUEMERAIS, E.; COSTA, J.
Remote sensing of the solar wind by SWAN/SOHO Lyman α measurements

12:15 **SCHERER, K.**; WOCH, J.; FAHR, H.-J.
Short variability of the solar wind parameter

12:30 **SCHERER, K.**; MARSCH, E.; FAHR, H.-J.
Longterm variability of the solar wind parameters

12:45 **VARLEY, C.**; WILLIAMS, P.J.S.; MORAN, P.J.; WILKINSON, W.; FALLOWS, R.; BREEN, A.R.; COLES, W.A.
Estimates of scale size of irregularities in the fast and slow solar wind using EISCAT observations of interplanetary scintillation

13:00 LUNCH

Chairperson: Marsch, E.

14:00 **MEYER-VERNET, N.**; ISSAUTIER, K.
Electron temperature in the solar wind from kinetic models

14:15 **BAUMGÄRTEL, K.**; SAUER, K.; DUBININ, E.; TARRASOV, V.; DOUGHERTY, M.
Solar wind interaction with the Phobos gas torus: Phobos events

14:30 **DE KEYSER, J.**; ROTH, M.; SÖDING, A.
Flow shear and magnetic field orientation at solar wind directional discontinuities: WIND observations

14:45 IVANOV, K.G.; ROMASHETS, E.P.
Interplanetary disturbances with forward rotational discontinuities

15:00 **SMITH, E.J.**; BURTON, M.E.; MCCOMAS, D.J.; ANDERSON, K.A.
Ulysses observations of a pair of slow mode shocks inside a cornal mass ejection

15:15 REINER, M.J.; KAISER, M.L.; FAINBERG, J.; STONE, R.G.
Remote radio tracking of CMEs

15:30 GROTH, C.P.T.; **GOMBOSI, T.I.**; DEZEEUW, D.L.; MARSHALL, H.G.; POWELL, K.G.; STOUT, Q.F.
3D MHD simulation of coronal mass ejections

15:45 FORSYTH, R.J.; BALOGH, A.; SMITH, E.J.; TSURUTANI, B.T.
Recent heliospheric magnetic field observations as Ulysses approaches Aphelion

16:00 **MORAN, P.J.**; BREEN, A.R.; COLES, W.A.; VARLEY, C.A.; WILKINSON, W.P.; WILLIAMS, P.J.S.
Interplanetary scintillation measurements of the large scale structure of the heliospheric magnetic fields using EISCAT

16:15 **KIRSCH, E.**; MALL, U.; WILKEN, B.; CIERPKA, K.; GALVIN, A.B.; GLOECKLER, G.; CHOTOO, K.
Suprathermal solar wind and pickup ions measured by the WIND/SMS-experiment near the libration point L1

16:30 END OF PART I

17:00 Opening

19:30 Reception

ST5 Open session on solar and heliospheric physics II

Convener: Marsden, R.G.
Co-Convener(s): Marsch, E.
Tuesday, 21 April 1998
Lecture Room: M5
Chairperson: Mall, U.

09:00 **FAHR, H.-J.**; FICHTNER, H.; SCHERER, H.
Extreme-ultraviolet diagnostics of pick-up ions in regions close to the solar corona

09:15 **GRÜNWALDT, H.**; MANN, I.; HILCHENBACH, M.; BOCHSLER, P.
Correlated C^+ and O^+ source near 0.2 AU

09:30 **FAHR, H.-J.**; CHALOV, S.V.
Phase space diffusion and anisotropic pick-up ion distributions in the solar wind

09:45 **RUCINSKI, D.**; BZOWSKI, M.
Solar cycle-induced modulations of the inter-planetary pickup ion fluxes

10:00 FORSYTH, R.J.; WIMMER-SCHWEINGRUBER, R.F.
Corotating interaction regions: magnetic field behaviour in the vicinity of stream interfaces and heliospheric current sheet crossings

10:15 **WIMMER-SCHWEINGRUBER, R.F.**; VON STEIGER, R.; PAERLI, R.
Solar wind stream interfaces in corotating interaction regions: SWICS/Ulysses results II

10:30 BREAK

Chairperson: Mall, U.

11:00 KEPPLER, E.
Is CIR acceleration dependent on heliographic latitude in the light of Ulysses data?

11:15 BOGDANOV, A.T.; MÖBIUS, E.; HILCHENBACH, M.; KLECKER, B.; HOVESTADT, D.; KISTLER, L.M.; POPECKI, M.A.; LUND, E.J.; HEIRTZLER, D.; GALVIN, A.B.; BOCHSLER, P.; GRUENWALDT, H.; IPAVICH, F.M.; GLIEM, F.
Analysis of a ^{3}He rich solar energetic particle event observed with ACE/SEPICA and SOHO/HSTOF

11:30 **LARIO, D.**; SANDERSON, T.R.; MARSDEN, R.G.; MAKSIMOVIC, M.; FORSYTH, R.J.; BALOGH, A.
Ulysses and WIND observations of the transient particle events in November 1997

11:45 **CHAIZY, P.A.**; LANZEROTTI, L.J.; LEPPING, R.P.; KOKUBUN, S.K.; LIN, R.P.; BOSQUED, J.M.; SANDERSON, T.R.; YAMAMOTO, T.
Analysis of transport conditions of energetic heliospheric electrons (WIND and GEOTAIL data)

12:00 **BZOWSKI, M.**; RUCINSKI, D.; IZMODENOV, V.
Physical phenomena determining interstellar hydrogen distribution in the inner heliosphere

12:15 **BZOWSKI, M.**; FAHR, J.H.; RUCINSKI, D.
On the applicability of fluid-mechanics approach in the modelling of interstellar hydrogen gas within the heliosphere

12:30 **QUEMAERAIS, E.**; COSTA, J.; LALLEMENT, R.; BERTAUX, J.L.; KYRÖLÄ, E.; SCHMIDT, W.
Interstellar neutral hydrogen velocity and temperature from SWAN/SOHO hydrogen cell measurements

12:45 SCHERER, K.
The influence of the neutral gas drag in the outer heliosphere

13:00 **IZMODENOV, V.V.**; GEISS, J.; GLOECKLER, G.; BARANOV, V.B.; LALLEMENT, R.; MALAMA, YU.G.
Interstellar atom filtration in the heliospheric interface: inferences on the LIC electron density

13:15 END OF SESSION

Attend the Poster Session

and the

Exhibition

ST5 Open session on solar and heliospheric physics - Poster Session

Convener: Marsden, R.G.
Co-Convener(s): Marsch, E.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 3 - ST
Chairperson: Marsden, R.G.

ST193 **JENSEN, J.M.**; JACOBSEN, B.H.; CHRISTENSEN-DALSGAARD, J.
Rapid inversion of helioseismic time-distance data

ST194 **MEISTER, C.-V.**; RUNOV, A.V.; PUDOVKIN, M.I.; ZAITSEVA, S.A.; ZAKHAROV, V.E.
Modelling of sunspot equilibriae for finite flux tube diameters

ST195 **SUKHORUKOVA, G.V.**; AXFORD, W.I.; MCKENZIE, J.F.
The connection of the fast solar wind to the chromospheric network pattern

ST196 **ORLANDO, S.**; VENTURA, R.; PERES, G.; SPADARO, D.
Propagation of three-dimensional Alfvén waves in the high speed solar wind: effects on the LYalpha and LY beta and O VI lines observed by UVCS/SOHO

ST197 **KERN, O.**; WIMMER-SCHWEINGRUBER, R.F.; BOCHSLER, P.; ZURBUCHEN, T.H.; HAMILTON, D.C.
Ca, Si, and Fe elemental abundances in the slow and cold solar wind determined from the mass instrument on WIND

ST198 **MALL, U.**; KIRSCH, E.; CIERPKA, K.; WILKEN, B.; SOEDING, A.; NEUBAUER, F.; GLOECKLER, G.; GALVIN, A.; CHOTOO, S.
Direct observation of lunar pick-up ions with WIND-STICKS

ST199 **SUMMANEN, T.**; KYRÖLÄ, E.; SCHMIDT, W.; MÄKINEN, T.; BERTAUX, J.L.; LALLEMENT, R.; QUEMERAIS, E.; COSTA, J.
Temporal variations of interplanetary lyman α radiation measured by SWAN

ST200 **SCHERER, K.**; FAHR, H.-J.; BANASZKIEWICZ, M.
The dynamics of interplanetary dust particles close to the Sun: the plasma-Poynting-Robertson effects of the solar wind near the corona

ST201 **WIMMER-SCHWEINGRUBER, R.F.**; BOCHSLER, P.; WIELER, R.; BAMERT, K.
Suprathermal solar particles in lunar soils - a comparison with long-time flux averages inferred from spacecraft measurements

ST202 **LAUTH, U.**; KEPPLER, E.
Intersection of heliospheric current sheet with forward shock of corotating interaction region

ST203 **CLASSEN, H.-T.**; MANN, G.; KEPPLER, E.
Particle acceleration efficiency and MHD characteristics of CIR related-shocks

ST204 **SCHERER, K.**; FICHTNER, H.
Comparison of the cosmic ray fluxes measured onboard of Pioneer 10 and Pioneer 11

ST205 **IZMODENOV, V.V.**; KALININ, A.P.; MALAMA, YU.G.
Estimation of elastic H-H, H-H$^+$ collision influence on the interstellar atom distribution in the heliospheric interface

ST206 BADALYAN, O.G.; VALCHUK, T.E.; **YERMOLAEV, YU.I.**; LIVSHITS, M.A.
Study of helium abundance in low-speed solar wind streams on the basis of Prognoz 7 and 8 data

ST206A YERMOLAEV, YU.I.
Do all solar atmosphere areas provide equal solar wind kinetic energy flux?

ST6 Nonlinear dynamics in the heliosphere (co-sponsored by NP)

Convener: Macek, W.M.
Co-Convener(s): Carbone, V.; Grappin, R.
Tuesday, 21 April 1998
Lecture Room: GALLIENI 5
Chairperson: Marsch, E.

Shocks

08:45 GEDALIN, M.
Fine structure of collisionless shocks: theory and observations (Solicited Paper)

09:15 **SCHOLER, M.**; KUCHAREK, H.; TRATTNER, K.J.
Ion injection, acceleration, and wave generation at the quasi-parallel bow shock (Solicited Paper)

09:45 **LOUARN, P.**; MANGENEY, A.
On the universal importance of small scale electrostatic structures in acceleration/heating processes

10:00 **RATKIEWICZ, R.**; BARNES, A.; SPREITER, J.R.; STAHARA, S.S.
Termination shock excursions: possibilities for Voyager encounter

10:15 **ERDŐS, G.**; BALOGH, A.; KOTA, J.
Mixing of the heliospheric magnetic field lines

10:30 BREAK

Chairperson: Macek, W.M.

11:00 **GALTIER, S.**; FOURNIER, J.-D.
Shocks and antishocks in the MHD-Thomas model

Solitons and nonlinear waves

11:15 **BAUMGÄRTEL, K.**; HACKENBERG, P.; MANN, G.
Magnetohydrodynamic solitary waves: relevance to solar wind observations

11:30 **HACKENBERG, P.**; MANN, G.; MARSCH, E.
Solitary waves in multi-ion plasmas

11:45 **CHAMPEAUX, S.**; PASSOT, T.; SULEM, P.L.
Alfvén wave collapse in the small-dispersion limit

Fractals and turbulence

12:00 **GRAPPIN, R.**; LEORAT, J.
Role of coronal conditions in the development of streams, instabilities and turbulence in the solar wind

12:15 **SORRISO-VALVO, L.**; BRUNO, R.; CARBONE, V.; VELTRI, P.
Probability distribution functions of turbulent fluctuations in the solar wind

12:30 MILOVANOV, A.V.; ZELENYI, L.M.
Multiscale structure of the interplanetary magnetic field: fracton excitations and the power-law spectra

12:45 **PRIMAVERA, L.**; MALARA, F.; VELTRI, P.
A numerical study of the correlation between density and temperature fluctuations observed in solar wind

13:00 LUNCH

Chairperson: Scholer, M.

14:00 MARSCH, E.
Structure functions and scalings analysis of solar wind fluctuations (Solicited Paper)

14:30 **POLITANO, H.**; POUQUET, A.
Exact scaling laws for turbulent MHD flows

14:45 **VELTRI, P.**; MANGENEY, A.
On the nature of intermittency in the solar wind MHD turbulence

15:00 **VÖRÖS, Z.**; KOVACS, P.; KÖRMENDI, A.; GREEN, A.W.; PLYASOVA BAKOUNINA, T.A.; JUHASZ, A.
Self-similarity concepts for geomagnetic pulsations (Solicited Paper)

15:30 WERNIK, A.W.
Properties of the solar wind turbulence as revealed by the wavelet transform

15:45 MACEK, W.M.
Testing for fractal structure in the low-speed solar wind in the inner heliosphere

16:00 **REDAELLI, S.**; MACEK, W.M.
Entropy of the solar wind flow in the inner heliosphere

16:15 **CHIGIRINSKAYA, Y.**; SCHERTZER, D.; LOVEJOY, S.
Scaling gyroscope cascade models and the multifractal MHD intermittency

16:30 END OF SESSION

ST6 Nonlinear dynamics in the heliosphere (co-sponsored by NP) - Poster Session

Convener: Macek, W.M.
Co-Convener(s): Carbone, V.; Grappin, R.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 3 - ST

ST207 **OBOJSKA, L.**; MACEK, W.M.
Singular system analysis of the solar wind

ST208 **SALEM, C.**; MANGENEY, A.; LACOMBE, C.; KELLOGG, P.J.
Small electrostatic potential drops in the solar wind

ST209 **KOVACS, P.**; VÖRÖS, Z.; KÖRMENDI, A.; GREEN, A.W.; HEGYMEGI, L.
Wavelet analysis of geomagnetic time series

ST7 Nonlinear processes in the ionosphere and magnetosphere (co-sponsored by NP)

Convener: Rycroft, M.J.
Co-Convener(s): Fontaine, D.
Wednesday, 22 April 1998
Lecture Room: M8
Chairperson: Rycroft, M.J.

09:00 **SUKHORUKOV, A.I.**; STUBBE, P.
Sprite effects on the ionosphere

09:15 **BUCHERT, S.C.**; SAITO, S.
On the Pedersen current carried by electrons

09:30 **RYCROFT, M.J.**; DEMEKHOV, A.G.; TRAKHTENGERTS, V.Y.; MANNINEN, J.; TURUNEN, T.
Demodulation of HF radio transmitter signals by the polar electrojet

09:45 **BELYAEV, P.P.**; KANGAS, J.; BOSINGER, T.; TRAKHTENGERTS, V.YU.; ISAEV, S.V.; RIETVELD, M.
Electromagnetic remote sounding of resonance properties of polar ionosphere in the ULF frequency range 0.1 - 5 Hz with using of HF powerful heating facility

10:00 **BELYAEV, P.P.**; TRAKHTENGERTS, V.YU.; ISAEV, S.V.; KANGAS, J.; BOSINGER, T.
First evidence of spectral resonance structure (SRS) of ULF background electromagnetic noises at the polar region

10:15 DUDOK DE WIT, T.
Recent developments in the characterization of nonlinear wave phenomena in space plasmas (Solicited Paper)

10:45 **BORISOV, N.**; STUBBE, P.; GORBUNOV, L.
Parametric decay of electromagnetic pump wave in two-dimensional inhomogeneous plasma

11:00 LUNCH

12:00 Business Meetings

Chairperson: Rycroft, M.J.

14:00 **MISHIN, E.**; HAGFORS, T.
On particle acceleration bylower hybrid turbulence during ionospheric modification experiments

14:15 POPEL, S.I.
Modulational interaction of lower-hybrid waves and formation of coherent structures in the magnetosphere

14:30 **LEFEBVRE, B.**; KRASNOSEL'SKIKH, V.
A dynamical study of induced scattering

14:45 **MANNINEN, R.**; KAILA, K.; OIKARINEN, A.; MANNINEN, J.
Pulsating auroras and their connection with VLF emissions observed in northern Finland

15:00 NUNN, D.; **MANNINEN, J.**; TURUNEN, T.; TRAKHTENGERTS, V.; EROKHIN, E.
On the nonlinear triggering of VLF emissions by power line harmonic radiation

15:15 PUDOVKIN, M.I.; **BESSER, B.P.**; LEBEDEVA, V.V.; ZAITSEVA, S.A.
Magnetosheath's model in the CGL approximation

15:30 VLADIMIROV, S.V.
Collective charging processes in dusty plasmas

15:45 **VLADIMIROV, S.V.**; CRAMER, N.F.
Linear and nonlinear properties of Alfvén waves in plasmas containing highly charged impurities or dust

16:00 Concluding Remarks

16:15 END OF SESSION

Annales Geophysicae

The leading interdisciplinary, boundary-layer journal covering the physics and chemistry of the oceans, of the lower, middle and upper atmosphere of the Earth, of the Sun and of the interplanetary medium.

ST7 Nonlinear processes in the ionosphere and magnetosphere (co-sponsored by NP) - Poster Session

Convener: Rycroft, M.J.
Co-Convener(s): Fontaine, D.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: AGORA 3 - ST
Chairperson: Rycroft, M.J.

ST137 BUTS, A.V.; CHATSKAYA, V.A.; **TYRNOV, O.F.**
Influence of plasma density fluctuations on plasma-beam interaction

ST138 BUTS, V.A.; CHATSKAYA, V.A.; **TYRNOV, O.F.**
Dynamical ray focusing in inhomogeneous plasma

ST139 **BELYAEV, P.P.**; POLYAKOV, S.V.; ERMAKOVA, E.N.; ISAEV, S.V.
Experimental investigations of the ionospheric Alfvén resonator from electromagnetic noise background over the solar cycle 1985-1995

ST140 **BELYAEV, P.P.**; SOBCHAKOV, L.A.; VASILYEV, A.V.; ASTAKHOVA, N.L.; POLYAKOV, S.V.; ISAEV, S.V.
First test measurements of artificial ULF signals at the long distance 1500 km

ST141 **SITNOV, M.I.**; MALOVA, H.V.
The role of the electron-to-ion temperature ratio and transient electrons in the linear stability of the quasi-neutral sheet tearing mode

ST142 ZOTOV, O.D.
Self-affine fractal dynamics of the activities of the Sun and magnetosphere of the Earth

ST142A **VOLOKITIN, A.S.**; KRAFFT, C.
Nonlinear interaction of whistler waves with a modulated thin electron beam

ST8 The high-latitude ionosphere and magnetosphere: coupling and solar wind forcing

Convener: Woch, J.
Co-Convener(s): Villain, J.-P.
Tuesday, 21 April 1998
Lecture Room: M6
Chairperson: Cowley, S.W.

08:45 **POPIELAWSKA, B.**; GUSTAFSSON, G.; STASIEWICZ, K.; MOZER, F.Z.; RUSSELL, C.T.
Electric field characteristics of the high latitude magnetopause

09:00 **STASIEWICZ, K.**; GUSTAFSSON, G.; POPIELAWSKA, B.
Alfvénic structures in the outer cusp

09:15 PERRY, C.H.; GRANDE, M.; KELLETT, B.J.; REES, A.; FENNELL, J.F.; LIVI, S.; FRITZ, T.
Statistics of cusp and magnetosheath ion populations observed with Polar

09:30 VENNERSTROEM, S.
Dayside high-altitude irregular magnetic pulsations of 2-10 minutes period, and their relationship to the solar wind

09:45 **NEUDEGG, D.A.**; FRASER, B.J.; MENK, F.W.; BURNS, G.B.; MORRIS, R.J.; UNDERWOOD, M.J.
Local polar magnetosphere-ionosphere topology determined by ULF wave signatures using an Antarctic magnetometer array

10:00 **PROVAN, G.**; YEOMAN, T.K.; MILAN, S.E.
CUTLASS Finland radar observations of the ionospheric signatures of flux transfer events and the resulting plasma flows

10:15 JACOBSEN, B.; LYATSKY, W.
Optical signatures of travelling convection vortex events

10:30 **MÄLKKI, A.M.**; KOSKINEN, H.E.J.; PULKKINEN, T.I.; SANDAHL, I.; PETERSON, W.K.; BUDNICK, E.YU.; FEDEROV, A.
Dispersive proton injections at high latitutde, observed by INTERBALL auroral proble on January 11, 1997

10:45 BREAK

Chairperson: Villain, J.-P.

11:00 SANDHOLT, P.E.; FARRUGIA, C.J.; COWLEY, S.W.H.
Pulsating cusp aurora for northward IMF

11:15 TAYLOR, J.R.; COWLEY, S.W.H.; YEOMAN, T.K.; LESTER, M.; JONES, T.B.; GREENWALD, R.A.; SOFKO, G.; VILLAIN, J.-P.; LEPPING, R.P.; HAIRSTON, M.R.
Superdarn studies of the ionospheric convection response to a northward turning of the interplanetary magnetic field (Solicited Paper)

11:45 **GREBOWSKY, J.M.**; ERLANDSON, R.E.
Observed polar cap ionosphere dependence on IMF

12:00 MAKELA, J.S.; MALKKI, A.; KOSKINEN, H.E.J.; BOEHM, M.H.; ELIASSON, L.; HOLBACK, B.
Particle signatures within mesoscale auroral cavities

12:15 **KHAN, H.**; COWLEY, S.W.H.
Investigation of dayside and nightside ionospheric response delays to changes in the IMF conditions using simultaneous satellite and EISCAT data

12:30 LUNCH

Chairperson: Woch, J.

14:00 **ISRAELEVICH, P.L.**; ERSHKOVICH, A.I.
New method for reconstruction of the polar convection pattern

14:15 **ANDRE, R.**; VILLAIN, J.P.; KRASNOSEL'SKIKH, V.; HANUISE, C.
Superdarn observations of small-scale expanding structures

14:30 **VILLAIN, J.P.**; ANDRE, R.; HANUISE, C.; GRESILLON, D.
Application of collective wave scattering to superdarn radars: spatio-temporal evolution of turbulence parameters for specific geophysical events

14:45 WALKER, A.D.M.; **PINNOCK, M.**; BAKER, K.B.; DUDENEY, J.R.; RASH, J.P.S.
Strong flow bursts in the nightside ionosphere during extremely quiet conditions

15:00 **KETTMANN, G.**; WOCH, J.; MALL, U.; LIVI, S.; WILKEN, B.; FRITZ, T.A.; FENNELL, J.F.; GRANDE, M.
Ion composition in the high-latitude nightside magnetosphere: a statistical study

15:15 SCHLEGEL, K.; SCHWENN, R.; WOCH, J.
The January 1997 CME and its terrestrial impact - an example of multi-instrument studies (Solicited Paper)

15:45 OPGENOORTH, H.J.
Solar wind influence on plasma sheet processes: substorm onset and cessation (Solicited Paper) *

16:15 SAVIN, S.; ZELENYI, L.; BUDNIK, L.; BORODKOVA, N.; FEDOROV, A.; NIKOLAEVA, N.; NOZDRACHEV, M.; ROMANOV, S.; PETRUKOVICH, A.; YERMOLAEV, YU.; MUKAI, T.; KAWANO, H.; KOKUBUN, S.; LUNDIN, R.; SANDAHL, I.; RUSSELL, C.T.; MAYNARD, N.; PARKS, G.; AMATA, E.; SAFRANKOVA, J.; NEMECEK, Z.; BLECKI, J.
Boundary layer dynamics and substorms view from ISTP spacecraft

16:30 **LEWIS, R.V.**; FREEMAN, M.P.; REEVES, G.D.
The relationship of HF radar backscatter to the accumulation of open magnetic flux prior to substorm onset

16:45 **STOREY, J.**; LESTER, M.; COWLEY, S.W.H.; GRANDE, M.; FRITZ, T.A.
Investigation of substorm-associated features in the plasma sheet observed by the Polar satellite

17:00 **ZONG, Q.-G.**; WILKEN, B.; WOCH, J.; REEVES, G.D.; DOKE, T.; YAMAMOTO, T.; KOKUBUN, S.; ULLALAND, S.
Energetic oxygen beams in the plasmoids with both By and Bz bipolar magnetic field signatures

17:15 DE KEYSER, J.; ROTH, M.; **LEMAIRE, J.**
Formation and evolution of SAID in the course of a substorm

17:30 END OF SESSION

ST8 The high-latitude ionosphere and magnetosphere: coupling and solar wind forcing - Poster Session

Convener: Woch, J.
Co-Convener(s): Villain, J.-P.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:30 - 19:00
Poster Area: AGORA 3 - ST

ST143 **LILENSTEN, J.**; GALAND, M.; KOFMAN, W.; CATTELL, C.; SIGSBEE, K.; CARLSON, C.; MCFADDEN, J; ERGUN, R.; STRANGEWAY, R.; PFAFF, R.; BLELLY, P.L.
Electron-proton precipitation effects on the ionosphere during FAST/EISCAT/ESR coordinated experiments

ST144 BELENKAYA, E.S.
High-latitude ionosphere and magnetosphere dependent on the solar wind magnetic field

ST145 **FU, S.Y.**; WILKEN, B.; ZONG, Q.-G.
Inner magnetosphere response to the passage of heliosphere current sheet

Attend the Poster Session

ST

ST9 Effects of geomagnetic storms and high-energy particle events on the ionosphere, thermosphere, and middle atmosphere

Convener: Lastovicka, J.
Co-Convener(s): Förster, M.
Monday, 20 April 1998
Lecture Room: M6
Chairperson: Lastovicka, J.

09:00 LASTOVICKA, J.
Introduction
09:15 **FÖRSTER, M.**; JAKOWSKI, N.
Geomagnetic storm effects on the topside ionosphere and plasmasphere (Solicited Paper)
09:45 **MARTINEZ-GARCIA, M.**; HERNANDEZ-PAJARES, M.; JUAN, J.M.; SANZ, J.
Obtaining the ionospheric total electron content at real-time under high geomagnetic activity conditions
10:00 HERNANDEZ-PAJARES, M.; JUAN, J.M.; **SANZ, J.**
Global tomography during ionospheric storms using GPS data
10:15 TRAKHTENGERTS, V.Y.
Contribution of energetic particle precipitation to the subauroral 3D current system and polarisation jet
10:30 BREAK

Chairperson: Lastovicka, J.

11:00 JIRICEK, F.; **KUDELA, K.**; SMILAUER, J.; STETIAROVA, J.; TITOVA, E.
Energetic electron precipitation as a signature of cold plasma structure near plasmapause
11:15 **DACHEV, TS.P.**; TOMOV, B.T.; MATVIICHUK, YU.N.; KOLEVA, R.T.; SEMKOVA, J.V.; PETROV, V.M.; SHURSHAKOV, V.A.; LEMAIRE, J.F.
Study of the trapped radiation dependence by the neutral atmosphere variations at the altitude of the MIR space station
11:30 **KERR, R.B.**; NOTO, J.; SCHNELLER, W.J.
Low latitude enhancements of exospheric atomic hydrogen column abundances following geomagnetic storm onset
11:45 PRÖLSS, G.W.
Ionospheric storms: outstanding problems (Solicited Paper)
12:15 PAVLOV, A.V.
The role of vibrationally excited oxygen and nitrogen on the ionosphere during the undisturbed and geomagnetic storm period of 6-12 April 1990
12:30 **MIKHAILOV, A.**; SCHLEGEL, K.
Different physical mechanisms of strong negative F2-layer storm effects observed with EISCAT
12:45 DEL POZO, C.F.; WILLIAMS, P.J.S.; FREEMAN, K.S.; SMITH, P.N.; KOSCH, M.; HONARY, F.
Electrodynamics of auroral arcs during various phases of a substorm
13:00 LUNCH

Chairperson: Förster, M.

14:00 **CODRESCU, M.**; FULLER-ROWELL, T.J.
Modelling the effects of geomagnetic storms on the ionosphere/thermosphere system (Solicited Paper)
14:30 ALPEROVICH, L.
On the sensivitivy of the global current systems to the high latitude perturbations
14:45 **MIKHAILOV, A.V.**; FÖRSTER, M.; FOSTER, J.C.
Some F2-layer effects during Jan 06-11, 1997 cedar storm period as observed with the Millstone Hill incoherent scatter facility
15:00 **PAVLOV, A.V.**; BUONSANTO, M.J.; SCHLESIER, A.C.; RICHARDS, P.G.
Comparison of models and data at Millstone Hill during the June 5-11, 1991, storm
15:15 MLCH, P.; **LASTOVICKA, J.**
Geomagnetic storms and total ozone (Solicited Paper)
15:45 SCHLEGEL, K.; FÜLLEKRUG, M.
Changes of Schumann-resonance parameters during high energy solar particle events
16:00 END OF SESSION
17:00 Opening
19:30 Reception

ST9 Effects of geomagnetic storms and high-energy particle events on the ionosphere, thermosphere, and middle atmosphere - Poster Session

Convener: Lastovicka, J.
Co-Convener(s): Förster, M.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 3 - ST
Chairperson: Förster, M.

ST147 **NAMGALADZE, A.A.**; YURIK, R.YU.; FÖRSTER, M.
Numerical modelling of the Earth's upper atmosphere during a geomagnetic storm
ST148 **ALMAR, I.**; ILLES-ALMAR, E.; BENCZE, P.
Effect of geomagnetic storms on thermospheric neutral density and wave activity
ST149 **BURESOVA, D.**; SAULI, P.; MOSERT DE GONZALEZ, M.
F1 region electron density profiles during geomagnetic storms as measured at Pruhonice
ST150 FEDULINA, I.; KOZIN, I.; SMUSHLYAEV, S.
Modelling the effects of Forbush decrease in galactic cosmic rays on ozone content
ST151 BOCHNICEK, J.; HEJDA, P.; BUCHA, V.; PYCHA, J.
Temperature-pressure deviations and prevailing winds in the N.H. winter troposphere in years of high and low geomagnetic activity
ST152 **LIBIN, I.YA.**; PEREZ-PERAZA, J.; JAANI, A.
Effects of geomagnetic storms and atmospheric processes
ST153 SILBERGLEIT, V.M.
The most geomagnetic disturbed 24-hours
ST154 **MIHAJLOVIC, S.J.**; OBRADOVIC, M.
Structure spectrum variations registrated in intensive magnetic storm

* not included in the Book of Abstracts

ST10 Ionospheric modelling and predictions I

Convener: Hanbaba, R.
Co-Convener(s): Zolesi, B.
Thursday, 23 April 1998
Lecture Room: M6
Co-sponsored by: FRANCE TELECOM-CNET, Istituto Nazionale di Geofisica
Chairperson: Bourdillon, A.
Editors: Hanbaba, R.; Zolesi, B.

14:00 LEITINGER, R.
ST10-001 Magnetic field aligned modelling for the upper F region and for the plasmasphere
14:15 LEITINGER, R.; COST 251 TROUGH TASK
ST10-002 FORCE
Modelling of the main trough of the F region for COST 251
14:30 PICOT, N.
ST10-003 Doris based ionospheric correction
14:45 BOURBILLON, A.; DE FRANCESCHI, G.; LE
ST10-004 ROUX, Y.
Improvements in target ranging by HF radar using the European ionospheric model prime
15:00 **REINISCH, B.W.**; HUANG, X.
ST10-005 Improving the IRI profile definition
15:15 HANBABA, R.
ST10-006 A regional model of the F-region day-to-day variability
15:30 BILITZA, D.; **HERNANDEZ-PAJARES, M.**;
ST10-007 JUAN, J.M.; SANZ, J.
Comparison between IRI and GPS-IGS derived electron content during 1991-97: first results
15:45 **ZOLESI, B.**; CANDER, LJ.R.; DE FRANCESCHI,
ST10-008 G.
A regional ionospheric model for the extended European area
16:00 KOURIS, S.S.; FOTIADIS, D.N.; **ZOLESI, B.**
ST10-009 Specifications of the F-region variations for quiet and disturbed conditions
16:15 KUTIEV, I.; MUHTAROV, P.; CANDER, L.R.;
ST10-010 LEVY, M.F.
Short-term prediction of ionospheric parameters based on the autocorrelation analysis
16:30 **PULINETS, S.A.**; RADICELLA, S.M.; DEPUEV,
ST10-011 V.KH.; ZHANG, M.-L.
Topside electron density profiles modelling on the basis of vertical topside sounding data
16:45 MIKHAILOV, A.
ST10-012 Ionospheric index MF2 for monthly median foF_2 and M(3000)F2 modelling and long-term prediction over European area
17:00 END OF PART I

Attend the Business Meeting of your Section

Wednesday, 22 April, 12.00-14.00, Lecture Room M8

ST10 Ionospheric modelling and predictions - Poster Session

Convener: Hanbaba, R.
Co-Convener(s): Zolesi, B.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 3 - ST
Co-sponsored by: FRANCE TELECOM-CNET, Istituto Nazionale di Geofisica
Chairperson: Mikhailov, A.V.
Editors: Hanbaba, R.; Zolesi, B.

ST155 TRUHLIK, V.; TRISKOVA, L.; SMILAUER, J.
ST10-021 Empirical models of electron temperature and density in the outer ionosphere for period of solar maxima
ST156 LEITINGER, R.; HOCHEGGER, G.
ST10-022 Mapping monthly quartiles of ionospheric electron content and of foF_2
ST157 **RUFFINI, G.**; CUCURULL, L.; FLORES, A.;
ST10-023 RIUS, A.; SEDO, M.J.
A PIM-aided Kalman filter for GPS tomography of the ionospheric electron content
ST158 **FLECHTNER, F.**; BEDRICH, S.; TEUBEL, A.
ST10-024 Comparisons of PRARE TEC with TOPEX measurements and with ionospheric models
ST159 SHAGIMURATOV, I.I.; YAKIMOVA, G.A.;
ST10-025 BARAN, L.W.
Regional model of TEC from GPS oservations
ST160 ZAKHAROV, I.G.; **TYRNOV, O.F.**
ST10-026 Short-term critical frequency variations and their predictions in the midlatitude ionospheric F2 region
ST161 PUSHKIN, V.F.; FEDORENKO, V.N.;
ST10-027 FEDORENKO, YU.P.; **TYRNOV, P.F.**; SHAGIMURATOV, I.I.
Space correction of global models of electron number density in the ionosphere by receiving at one site signals from low-orbit satellites
ST162 SCOTTO, C.
ST10-028 Recent results about the occurrence of F1 layer
ST163 DRAGO, A.; **SCOTTO, C.**; ZOLESI, B.;
ST10-029 ZUCCHERETTI, E.
A test of electron density profiles models based on data of the digisonde DPS-4
ST164 **VILA, P.**; FLEURY, R.
ST10-030 Mesoscale structures at equatorial F2 latitudes and new oblique HF telecommunications in the subsahelain bush areas
ST165 LITVINE, A.; **KOFMAN, W.**; CABRIT, B.
ST10-031 The ion composition measurements and modelling at altitudes from 140 to 350 km using EISCAT measurements
ST166 CIRAOLO, L.; SPALLA, P.
ST10-032 Latitudional dependence of total electron content evaluated by GPS and NNSS observations at middle latitudes
ST167 GASSE, V.; LEMUR, D.; BERTEL, L.
ST10-033 A 3D ray tracing procedure to study ionospheric tilts
ST168 STANISAWSKA, I.
ST10-034 Comparison of different instantaneous models of N(h) rofiles at single location
ST168A BILGE, A.H.; TULUNAY, Y.
ST10-035 Semi empirical single station modelling of foF_2 variations: spectral analysis *

ST

ST10 Ionospheric modelling and predictions II

Convener: Hanbaba, R.
Co-Convener(s): Zolesi, B.
Friday, 24 April 1998
Lecture Room: M6
Co-sponsored by: FRANCE TELECOM-CNET, Istituto Nazionale di Geofisica
Chairperson: Leitinger, R.
Editors: Hanbaba, R.; Zolesi, B.

08:30 BENIGUEL, Y.
ST10-013 Characterization of ionospheric inhomogeneities a comparison between different models
08:45 BROUSSEAU, C.; PARION, P.; BERTEL, L.
ST10-014 Possible use of the LOCAPI ionospheric prediction software to digital communications
09:00 BRUN, E.; **SAILLANT, S.**
ST10-015 NOSTRADAMUS skywave radar: a 360 ionospheric sounder
09:15 **WU, J.**; LI, K.; WANG, X.; SUO, Y.
ST10-016 Effects of magnetic activity on the ionospheric monthly median value f0F2
09:30 **LAMMING, X.**; CANDER, LJ.R.
ST10-017 Monthly median ionospheric frequencies prediction with neural networks
09:45 STANISAWSKA, I.; GULYAEVA, T.L.;
ST10-018 HANBABA, R.
Ionospheric despatch centre in Europe
10:00 ZERNOV, N.N.; GHEM, V.E.; RADICELLA, S.M.
ST10-019 The effect of the electron density profile variability with time on the HF channel scattering function
10:15 **HUAR, A.**; SAILLANT, S.
ST10-020 Viewing ionospheric irregularities with 360 degrees azimuthal scanning using OTH radar NOSTRADAMUS
10:30 END OF SESSION

ST11 New results on the dynamics of the Earth's magnetosphere from the Interball multi-spacecraft missions I

Convener: Sauvaud, J.-A.
Co-Convener(s): Zelenyi, L.M.
Tuesday, 21 April 1998
Lecture Room: M2
Chairperson: N.N.

14:00 **SANDAHL, I.**; EKLUND, U.; KOSKINEN, H.; MLKKI, A.; BUDNICK, E.YU.
PROMICS-3 investigations of plasma entry into the magnetosphere
14:15 **EIGES, P.**; ZASTENKER, G.; NOZDRACHEV, M.; YERMOLAEV, YU.; SAFRANKOVA, J.; NEMECEK, Z.
Fast variations of ion flux and IMF in the Earth's foreshock region: INTERBALL-1 and MAGION-4 measurements
14:30 **BORODKOVA, N.**; KOKUBUN, S.; LEPPING, R.P., LIN, R.; MUKAI, T.; NEMECEK, Z.; OWEN, C.; PARKS, G.; PHAN, T.; ROMANOV, S.; SAFRANKOVA, J.; SAUVAUD, J.-A.; SIBECK, D.G.; SCHWARTZ, S.; SINGER, H.; SZABO, A.; TAKAHASHI, K.; ZASTENKER, G.
The large amplitude wave on the dayside MP
14:45 **BUDNICK, E.**; SHEVELEVA, E.; FEDOROV, A.; BORODKOVA, N.; SCALSKY, A.
Structure and properties of entry layer under different orientation of interplanetary magnetic field
15:00 **FEDOROV, A.**; DUBININ, E.; SONG, P.; BUDNICK, E.; SCALSKY, A.
Structure of the flank magnetopause for horizontal IMF: INTERBALL observations
15:15 **SKALSKY, A.**; FEDOROV, A.; NOZDRACHEV, M.; ZELENYI, L.; NEMECEK, Z.; SAFRANKOVA, J.
Rotational waves at the flank magnetopause
15:30 **SAVIN, S.**; ZELENYI, L.; BUDNIK, E.; BORODKOVA, N.; FEDOROV, A.; KLIMOV, S.; NIKOLAEVA, N.; ROMANOV, S.; SKALSKY, A.; YERMOLAEV, Y.; ROMANOV, V.; SANDAHL, I.; SAUVAUD, J.A.; SAFRANKOVA, J.; NEMECEK, Z.; TRISKA, P.; RUSSELL, C.T.; ZHOU, X.; AMATA, E.; FEDDER, A.; URQUHART, A.; FUSELIER, S.; RAUCH, J.L.; BLECKI, J.; JOCHNIEWICZ, J.
The cusp/magnetosheath connection: magnetopause identation and turbulent boundary effects
15:45 DUBOULOZ, N.; MALINGRE, M.; BERTHELIER, J.-J.; DELCOURT, D.; GALPERIN, Y.; CHUGUNIN, D.; MULARCHIK, T.; ZININ, L.
Analysis of 3D ion distributions observed by Interball AP in the cleft ion fountain
16:00 **SAUVAUD, J.A.**; POPESCU, D.; PARKS, G.K., BRITTNACHER, M.; DELCOURT, D.; PERRAUT, S.; KOVRAZHKIN, R.A.
INTERBALL and POLAR correlated measurements of velocity dispersed ions inside auroral surges
16:15 YAHNIN, A.G.
Substorms and pseudo-breakups as seen from coordinated Interball, Geotail, LANL, and ground-based observations
16:30 END OF PART I

ST11 New results on the dynamics of the Earth's magnetosphere from the Interball multi-spacecraft missions II

Convener: Sauvaud, J.-A.
Co-Convener(s): Zelenyi, L.M.
Wednesday, 22 April 1998
Lecture Room: M7
Chairperson: N.N.

09:00 **BÖSINGER, T.**; SERGEEV, V.A.; YAHNIN, A.G.; KORNILOV, I.A.; PELLINEN, R.J.; PULKINEN, T.I.; BORODKOVA, N.L.; IUTSENKO, V.N.; NOZDRACHEV, M.M.; PROKHORENKO, V.I.; SKALSKY, A.A.; SAUVAUD, J.-A.; KUDELAV, K.; SLIVKA, M.; SARRIS, E.T.; MILLING, D.
Plasmasheet response to multiple substorm acitvations
09:15 **JACQUEY, C.**; ROUQUETTE, S; SAUVAUD, J.A.; POPESCU, D.; REME, H.; KLIMOV, S.I.; ROMANOV, S.A.; LEPPING, R.P.; SIBECK, D.G.; WILLIAMS, D.J.; MCENTIRE, R.W.; KOKUBUN, S.
Large scale dynamics of the magnetotail during substorm expansion: Interball, Geotail, IMP-8 observations

09:30 **YERMOLAEV, YU.I.**; BORODKOVA, N.L.; BUDNIK, E.YU.; CHUGUNIN, D.V.; FEDOROV, A.O.; GALPERIN, YU.I.; KOVRAZHKIN, R.A.; LUTSENKO, V.N.; MOGILEVSKY, M.M.; NOZDRACHEV, M.N.; PETRUKOVICH, A.A.; PISSARENKO, N.F.; ROMANOV, S.A.; SAVIN, S.P.; SAUVAUD, J.-A.; SKALSKY, A.A.; SMIRNOV, V.N.; STEPANOV, V.A.; ZELENYI, L.M.
INTERBALL dual-spacecraft observations of serie of substorms on December 22-23, 1997

09:45 **SMETS, R.**; DELCOURT, D.C.; SAUVAUD, J.A.
Evolution of the electron pitch angle distributions during dipolarization phase of substorms observed by INTERBALL-TAIL

10:00 **HANASZ, J.**; SCHREIBER, R.; DE FERAUDY, H.; PERRAUT, S.; LEFEUVRE, F.; SAUVAUD, J.A.; DUBOULOZ, N.; MOGILEVSKY, M.M.; ROMANTSOVA, T.V.
Observations of the AKR at the entries into the nightside auroral region from Interball-2

10:15 **PERRAUT, S.**; ROUX, A.; DUBOULOZ, N.; SAUVAUD, J.A.; POPESCU, D.; MOGILEVSKY, M.
ULF waves observed in the auroral region by the Interball auroral probe

10:30 **LEFEUVRE, F.**; PARROT, M.; RAUCH, J.L. HANASZ, J.; SCHREIBER, R.; MOGILEVSKY, M.; DE FERAUDY, H.; SAUVAUD, J.A.; DUBOULOZ, N.
AKR and associated events: first Interball 2 results on propagation characteristics

10:45 **CHUGUNIN, D.V.**; GALPERIN, YU.I.; MULIARCHIK, T.M.; ZININ, L.V.; DUBOULOZ, N.; BERTHELIER, J.-J.; MALINGRE, M.
Distribtuion functions of the thermal H^+, He^+ and O^+ ions in different zones of the magnetospehre

11:00 EKLUND, U.
Plasma composition in the outer high latitude magnetosphere

11:15 **MOGILEVSKY, M.**; PARROT, M.; RAUCH, J.L.; PERRAUT, S.; SAUVAUD, J.A.; KOVRAZHKIN, R.; JIRICEK, F.; TRISKA, P.; PETROV, V.; BOSINGER, T.; RIETVELD, M.; ROMANTSOVA, T.; RUSANOV, A.
Observation of electromagnetic field and plasma in the magnetosphere above Tromsø HF heating facility

11:30 LUTSENKO, V.N.; KUDELA, K.
Almost monoenergetic ions near the Earth's magnetosphere boundaries (Poster)

11:35 PISSARENKO, N.; LUTSENKO, V.; BORODKOVA, N.; BUDNICK, E.; MOROZOVA, E.; MOSZHUKHINA, A.; PETRUKOVITCH, A.; ROMANOV, S.; SANDAHL, I.; SAVIN, S.; YERMOLAEV, YU.
Observations of energetic particles injection at Interball-Tail probe during substorms in October 22-23, November 14-15 and December 22, 1996

11:50 END OF SESSION

12:00 Business Meetings

Attend the Poster Session

ST11 New results on the dynamics of the Earth's magnetosphere from the Interball multi-spacecraft missions - Poster Session

Convener: Sauvaud, J.-A.
Co-Convener(s): Zelenyi, L.M.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: AGORA 3 - ST

ST181 LUTSENKO, V.N.; KUDELA, K.
Almost monoenergetic ions near the Earth's magnetosphere boundaries

ST182 **YERMOLAEV, YU.I.**; ZASTENKER, G.N.; BORODKOVA, N.L.; KOVRAZHKIN, R.A.; NIKOLAEVA, N.S.; NEMECEK, Z.; NOZDRACHEV, M.N.; SAFRANKOVA, J.; SAUVAUD, J.-A.; SKALSKY, A.A.; ZELENYI, L.M.
Magnetosphere response to magnetic clouds: INTERBALL multi-satellite observations

ST183 **NEMECEK, Z.**; SAFRANKOVA, J.; PRECH, L.; ZASTENKER, G.N.; NOZDRACHEV, M.N.; PAULARENA, K.I.; KUDELA, K.
Variations of the magnetosheath flow

ST184 **SAFRANKOVA, J.**; NEMECEK, Z.; PRECH, L.; ZASTENKER, G.; NIKOLAEVA, N.; SKALSKY, A.; SIBECK, D.
Flank magnetopause position and its variations

ST185 **FEDOROV, A.**; FEDDER, J.A.; BUDNICK, E.; RUSSELL, C.T.; SCALSKY, A.; SAVIN, S.
High latitude magnetopause in the vicinity of cusp during strong northward IMF. Evidence for reconnection

ST186 **MERKA, J.**; SAFRANKOVA, J.; NEMECEK, Z.; SANTOLIK, O.; FEDOROV, A.; BORODKOVA, N.; SAVIN, S.; SKALSKY, A.; ROMANOV, S.
The strcuture of the cusp-magnetospheath interface under different solar wind conditions

ST187 **NIKUTOWSKI, B.**; BÜCHNER, J.; KUSKA, J.-P.; KLIMOV, S.; ROMANOV, S.; SAVIN, S.
Investigation of a possible longitudinal variation of reconnection signatures using Interball-1 data

ST188 AMATA, E.; KLIMOV, S.; NOZDRACHEV, M.; ROMANOV, S.; SAVIN, S.; SKALSKY, A.; PETRUKOVICH, A.; ROMANOV, V.; BLECKI, J.; JUCHNIEWICZ, J.; BUECHNER, J.; NIKUTOWSKI, B.; IVCHENKO, V.; KOREPANOV, V.; RAUCH, J.L.; TROTIGNON, J.G.; PARROT, M.; GRARD, R.; RUSTENBACH, J.; TRISKA, P.; VOiTA, J.
Waves and fields as tracers of solar wind energy input to the magnetosphere: Interball-1 results

ST189 **BUDNICK, E.**; BORODKOVA, N.; CHUGUNIN, D.; FEDOROV, A.; GALPERIN, YU.; KOSKINNEN, H.; KOVRASHKIN, R.; LUTSENKO, V.; MOGILEVSKY, M.; PETRUKOVITCH, A.; PISSARENKO, N.; ROMANTSOVA, T.; SANDAHL, I.; SAUVAUD, J.-A.; SERGEEV, V.; SKALSKY, A.; STEPANOV, V.; YERMOLAEV, YU.; ZASTENKER, G.; ZELENYI, L.
Strong storm on October 22, 1996: multispacecraft study

ST190 **YERMOLAEV, YU.I.**; MIFTAHOVA, E.G.; PROKHORENKO, V.I.; ZELENYI, L.M.
The plasma sheet asymmetry as function of IMF B_Z and B_Y: tail probe observations

ST191 **BORODKOVA, N.L.**; BUDNICK, E.YU.; GALPERIN, YU.I.; KOVRAZHKIN, R.A.; NOZDRACHEV, M.N.; PISSARENKO, N.F.; ROMANOV, S.A.; SAUVAUD, J.-A.; SERGEEV, V.; SKALSKY, A.A.; SMIRNOV, V.N.; VLADIMIROVA, G.A.; ZASTENKER, G.N.; ZELENYI, L.M.
Multi-satellite observations of the substorm dynamics during the event on November 14, 1996

ST192 **KOPERSKI, P.**; SAUVAUD, J.-A.; SMETS, R.; DELCOURT, D.; ROMANOV, S.; BORODKOVA, N.
Observations of electron pitch angle distributions in the nightside magnetosphere for different phases of a substorm

ST192A BLECKI, J.; KOSSACKI, K.; WRONOWSKI, R.; NEMECEK, Z.; SAFRANKOWA, J.; SAVIN, S.; SAUVAUD, J.A.; ROMANOV, S.; JUCHNIEWICZ, J.; KLIMOV, S.; TRISKA, P.; SMILAUER, J.; SIMUNEK, J.
VLF plasma wave observations in the polar cusp onboard MAGION-4 Interball-1 subsatellite

ST192B MALINGRE, M.; DUBOULOZ, N.; BERTHELIER, J.J.; GALPERIN, Y.; CHUGUNIN, D.; MULARCHIK, T.; ZININ, L.; SAUVAUD, J.A.
Signatures of the soft electron precipitation region at the poleward boundary of the nightside auroral oval: INTERBALL AP observations

ST192C **SANTOLIK, O.**; SAFRANKOVA, J.; NEMECEK, Z.; PRECH, L.
Statistical study of particle fluxes in the magnetosphere

ST192D **KOVRAZHKIN, R.A.**; SAUVAUD, J.-A.; DELCOURT, D.C.
Gaps in the ion spectra in the inner magnetosphere

ST192E **VESELOV, M.V.**; GALPERIN, YU.L.; AFONIN, V.V.; TORKAR, K.; RIEDLER, W.; PEDERSEN, A.; PERRAUT, S.
On the Interball-2 electric potential

ST12 Theory and simulations of solar system plasmas I

Convener: Büchner, J.
Co-Convener(s): Belmont, G.
Thursday, 23 April 1998
Lecture Room: M8
Chairperson: Belmont, G.

09:00 SCHINDLER, K.
Nonlinear dynamics aspects of magnetospheric activity (Solicited Paper)

09:30 WIECHEN, H.
New aspects of plasma sheet dynamic: MHD and kinetic theory (Solicited Paper)

10:00 **BÜCHNER, J.**; KUSKA, J.-P.
Substorm onset as a transition to globally coherent reconnection

10:15 **KUSKA, J.-P.**; BÜCHNER, J.
PIC-code studies of reconnection in two and three dimensions

10:30 **LAPENTA, G.**; BRACKBILL, J.U.
Three dimensional study of reconnection in the Earth's magnetotail

10:45 BREAK

Chairperson: Schindler, K.

11:15 CHANTEUR, G.
The stability of thin current layers form bidimensional hybrid simulations (Solicited Paper)

11:45 **SCHOLER, M.**; KUCHAREK, H.; TERASAWA, T.
Injection and acceleration of pickup ions at interplanetary shocks (Solicited Paper)

12:15 MANN, G.
Electron acceleration at shock waves in the heliosphere (Solicited Paper)

12:45 SALEM, C.; **MANGENEY, A.**
Vlasov simulations of very weak double layers; application to the solar wind

13:00 LUNCH

Chairperson: Bingham, R.

14:00 DELCOURT, D.C.
Nongyrotropic ion distributions in the near-Earth magnetotail (Solicited Paper)

14:30 CHAPMAN, S.C.; ROWLANDS, G.; YNNERMAN, A.; TSALAS, M.
Stochasticity and trapping in single particle dynamics in slow and fast varying reversals (Solicited Paper)

15:00 **BÜCHNER, J.**; KUSKA, J.-P.; WILKEN, B.; ZONG, Q.
Remote determination of reconnection parameters by the energetic H^+, He^{++} and O^+ ion spectra

15:15 IP, W.-H.
Saturn's thermal plasma and neutral cloud-ring complex (Solicited Paper)

15:45 **MONCUQUET, M.**; MEYER-VERNET, N.; HOANG, S.
Modelling collisionless plasma near a potential well: the examples of the Io plasma torus

16:00 **MAZELLE, C.**; BELMONT, G.; CAO, J.B.
Stationary nongyrotropy near comets (Solicited Paper)

16:30 END OF PART I

ST12 Theory and simulations of solar system plasmas - Poster Session

Convener: Büchner, J.
Co-Convener(s): Belmont, G.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 3 - ST

ST211 **HEINEMANN, M.**; ERICKSON, G.M.
Field-aligned currents and parallel electric fields in the plasma sheet boundary layer

ST212 **BUCKLEY, A.M.**; GOUGH, M.P.; MOUIKIS, C.G.; CHAPMAN, S.C.; ALLEYNE, H.; YEARBY, K.H.; WATKINS, N.W.
Wave-particle interactions to be measured by Cluster: modelling the DWP particle correlator

ST213 **SAUER, K.**; DUBININ, E.; BAUMGÄRTEL, K.; TARASOV, V.
Low-frequency electromagnetic waves caused by small-scale bio-ion interaction

ST214 **ROTH, I.**; TEMERIN, M.; HUDSON, M.; REEVES, G.
Resonant enhancement of relativistic electron fluxes in geomagnetic storms

ST215 WODNICKA, E.B.
Solar wind - Earth magnetospheric coupling

ST216 WIIK, J.E.; **SCHMIEDER, B.**; SIMNETT, G.
Relationship between CME and prominence

ST217 **CHUST, T.**; LE QUEAU, D.
Kinetic model of Alfvén wave light-ion gyroresonance heating

ST12 Theory and simulations of solar system plasmas II

Convener: Büchner, J.
Co-Convener(s): Belmont, G.
Friday, 24 April 1998
Lecture Room: M8
Chairperson: Delcourt, D.

09:00 MOTSCHMANN, U.; GLASSMEIER, K.-H.
Concerning nongyrotropic particle distributions in space plasmas (Solicited Paper)

09:30 BRINCA, A.
Stability of stationary and time-varying nongyrotropic particle distributions (Solicited Paper) *

10:00 **BINGHAM, R.**; SHAPIRO, V.; DAWSON, J.M.; KELLETT, B.J.
Solar wind interaction with cometary plasmas: consequences for the problem of the cometary X-ray emission (Solicited Paper)

10:30 BREAK

Chairperson: Delcourt, D.

11:00 FARIA JR.; R.T.; **SHUKLA, P.K.**; MIRZA, A.M.
Nonlinear Alfvén waves in multi-ion plasmas (Solicited Paper)

11:30 STASIEWICZ, K.
Kinetic/inertial Alfvén waves in the Earth's magnetosphere (Solicited Paper)

12:00 **GENOT, V.**; LOUARN, P.; LEQUEAU, D.
Small scale density gradients as preferential sites for the dissipation of Alfvén wave poynting flux

12:15 **VOM ENDT, A.**; SCHLEGEL, K.
Implicit PIC simulations of the Farley-Buneman instability

12:30 **REZEAU, L.**; BELMONT, G.; REBERAC, F.
Resonant amplification of magnetosheath waves at magnetopause: magnetic field effects

12:45 LUNCH

Chairperson: Büchner, J.

14:00 AXFORD, W.I.; MCKENZIE, J.
Heating of the solar corona (Solicited Paper) *

14:30 PRIEST, E.R.; GALSGAARD, K.
Heating the solar corona by magnetic reconnection (Solicited Paper) *

15:00 **BREUS, T.K.**; KRYMSKII, A.M.; BOJSKOV, D.I.; AXFORD, W.I.
Two-dimensional models of the coronal magnetic field

15:15 INNES, D.
Simulation of small-scale explosive events on the Sun *

15:30 BREAK

Chairperson: Büchner, J.

16:00 TRAKHTENGERTS, V.Y.
A new mechanism of a solar flare (Solicited Paper)

16:30 LEMAIRE, J.F.
Convective instability in the outer plasmasphere (Solicited Paper)

17:00 **KRASNOSELSKIKH, V.**; LEFEBVRE, B.
Statistical properties of amplitudes and phases in the ensemble of interacting waves (Solicited Paper)

17:30 **BERTHOMIER, M.**; POTTELETTE, R.; TREUMANN, R.
Parametric study of kinetic Alfven solitons in a two electron temperature plasma

17:45 **TUR, A.V.**; MAURICE, S.; BLANC, M.; YANOVSKY, V.V.
Exact and approximative solutions of the plasma equilibrium within the magnetic field of a punctual dipole

18:00 SOMOV, B.V.
Theory and simulation of 3D reconnection in solar flares

18:15 END OF SESSION

ST13 The Sun: SOHO and related results .1 Plasma diagnosis of the solar atmosphere by photon spectroscopy and remote particle measurements I

Convener: Hilchenbach, M.
Co-Convener(s): Hansteen, V.
Tuesday, 21 April 1998
Lecture Room: M5
Chairperson: Hansteen, V.

14:00 AXFORD, W.I.
Coronal heating and the origin of the fast solar wind (Solicited Paper)

14:30 LEER, E.
Solar wind theory - in light of recent observations (Solicited Paper)

15:00 **MANN, G.**; CLASSEN, H.-T.; AURASS, H.; KLASSEN, A.; KUNOW, H.; DRÖGE, W.
Highly energetic electrons accelerated by coronal shock waves

15:15 KLECKER, B.; MÖBIUS, E.; BOGDANOV, A.T.; HOVESTADT, D.; KISTLER, L.M.; POPECKI, M.A.; LUND, E.J.; HEIRTZLER, D.
Temperature of the source region as derived from high resolution ionic charge measurements with SEPICA/ACE

15:30 BOTHMER, V.; ST. CYR, C.; CLASSEN, H.-T.; POSNER, A.; HOWARD, R.A.; KUNOW, H.; MANN, G.; MÜLLER-MELLIN, R.; WIBBERENZ, G.
Electron acceleration in the onset phase of coronal mass ejections: implications for the structure of the solar corona from observations of the SOHO spacecraft and ground based radiowave measurements

15:45 SPADARO, D.
SOHO observations of the outer solar atmosphere: status and prospects (Solicited Paper)

16:15 WILHELM, K.; **MARSCH, E.**; DWIVEDI, B.N.; HASSLER, D.M.; LEMAIRE, P.; GABRIEL, A.; HUBER, M.C.E.
The solar corona above polar coronal holes seen by SUMER on SOHO

16:30 **MARSCH, E.**; TU, C.-Y.; WILHELM, K.; CURDT, W.
Ion temperatures in a solar polar coronal hole observed by SUMER on SOHO

16:45 **POLETTO, G.**; UVCS TEAM
UVCS observations of polar regions

17:00 **ORLANDO, S.**; PERES, G.
Effects of plasms flows confined in coronal loops on SOHO observations

17:15 END OF PART I

ST13 The Sun: SOHO and related results .1 Plasma diagnosis of the solar atmosphere by photon spectroscopy and remote particle measurements II

Convener: Hilchenbach, M.
Co-Convener(s): Hansteen, V.
Wednesday, 22 April 1998
Lecture Room: M5
Chairperson: Spadaro, D.

09:00 HIBBERT, A.
The provision of atomic data and estimations of accuracy (Solicited Paper)

09:30 BODMER, R.
The electron temperature in the solar corona and charge states in the solar wind (Solicited Paper)

10:00 **AELLIG, M.R.**; BOCHSLER, P.; GRÜNWALDT, H.; HEFTI, S.; WURZ, P.; HILCHENBACH, M.; HOVESTADT, D.; IPAVICH, F.M.; GLIEM, F.
The influence of suprathermal electrons on the derivation of coronal electron temperatures from solar wind minor ion charge state spectra obtained from SOHO/CELIAS/CTOF

10:15 **BOCHSLER, P.**; BODMER, R.
Isotope fractionation processes in the solar wind

10:30 **KALLENBACH, R.**; IPAVICH, F.M.; KUCHAREK, H.; BOCHSLER, P.; GEISS, J.; GLIEM, F.; GLOECKLER, G.; GALVIN, A.B.; GRÜNWALDT, H.; HILCHENBACH, M.; HOVESTADT, D.
Solar wind isotopic abundance ratios of Ne, Mg, and Si measured by SOHO/CELIAS/MTOF as diagnostic tool for the inner solar corona

10:45 **GRÜNWALDT, H.**; HILCHENBACH, M.; MARSCH, E.; BOCHSLER, P.
The search with CELIAS/CTOF for O^{5+} as a solar wind constituent

11:00 **WURZ, P.**; IPAVICH, F.M.; BOCHSLER, P.; AELLIG, M.R.; HEFTI, S.; KALLENBACH, R.; GALVIN, A.B.; GRÜNWALDT, H.; HILCHENBACH, M.
The silicon, oxygen, and iron abundance in the solar wind

11:15 HEFI, S.; **BOCHSLER, P.**; GRÜNWALDT, H.; AELLIG, M.R.; IPAVICH, F.M.; HILCHENBACH, M.; WURZ, P.; HOVENSTADT, D.
Kinetic properties of oxygen, silicon, and iron ions measured with SOHO/CELIAS

11:30 END OF SUB-SESSION

12:00 Business Meetings

ST13 The Sun: SOHO and related results .2 Multi-wavelength observations of solar atmospheric structure, evolution and eruptions I

Convener: Harrison, R.A.
Co-Convener(s): Delaboudiniere, J.-P.
Wednesday, 22 April 1998
Lecture Room: M5
Chairperson: Harrison, R.A.

14:00 **MACPHERSON K.P.**; JORDAN, C.
Studies of helium line formation in the solar transition region based on SOHO JOP 62

14:15 **JORDAN, S.**; ANDRETTA, V.; GARCIA, A.
A lower limit on nonthermal velocities of quiet-Sun He II ions

14:30 **WIKSTOL, O.**; HANSTEEN, V.H.; MALTBY, P.; KJELDSETH-MOE, O.; JUDGE, P.G.; WILHELM, K.; TARBELL, T.D.
Time variations and dynamics of the quiet Sun transition region

14:45 **IP, W.-H.**; DAMMASCH, I.E.; WILHELM, K.; TARBELL, T.D.
Correlative study of coronal and transition region emission patterns with the magnetic field structure using SOHO observations (Solicited Paper)

15:15 HARRISON, R.A.
Quiet Sun transient activity: blinkers, explosive events and the magnetic carpet

15:30 BRYNILDSEN, N.; **BREKKE, P.**; HAUGAN, S.V.H.; KJELDSETH-MOE, O.; MALTBY, P.; WIKSTOL, O.
Bright EUV sunspot plumes exist

15:45 **ALETTI, V.**; BOCCHIALINI, K.; VIAL, J.C.
Multi-wavelength analysis of intensity distribution in bright points

16:00 **PÄTZOLD, M.**; BIRD, M.K.
Polar plumes and fine-scale coronall structures - on the interpreation of coronal radio sounding data

16:15 ARTZNER, G.
Four wavelengths 3D geometry of solar structures

16:30 END OF PART I

ST13 The Sun: SOHO and related results .2 Multi-wavelength observations of solar atmospheric structure, evolution and eruptions - Poster Session

Convener: Harrison, R.A.
Co-Convener(s): Delaboudiniere, J.-P.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: AGORA 3 - ST

ST219 **GARCIA, A.**; JORDAN, S.; BROSIUS, J.; ANDRETTA, V.
Observational support for "velocity redistribution" of the He II ions

ST220 **BREKKE, P.**; THOMPSON, W.T.; WOODS, T.; EPARVIER, F.
The EUV solar irradiance spectrum observed with CDS on SOHO

ST222 VERNETA, A.I.
Three dimensional magnetic reconnection in a light of XUV lines analysis

ST13 The Sun: SOHO and related results .2 Multi-wavelength observations of solar atmospheric structure, evolution and eruptions II

Convener: Harrison, R.A.
Co-Convener(s): Delaboudiniere, J.-P.
Thursday, 23 April 1998
Lecture Room: M5
Chairperson: Harrison, R.A.

09:00 **LANG, K.R.**; WILLSON, R.F.
VLA and SOHO observations of solar activity (Solicited Paper)
09:30 **KJELDSETH-MOE, O.**; BREKKE, P.; HAUGAN, S.V.H.; WIKSTOL, O.
Rapid time variation and strong dynamics of loops in active regions
09:45 **BREKKE, P.**; BRYNILDSEN, N.; KJELDSETH-MOE, O.; MALTBY, P.; WILHELM, K.
Multiple flows in the active region NOAA 7995
10:00 BREAK

Chairperson: Harrison, R.A.

10:45 **VAN DRIEL-GESZTELYI, L.**; SCHMIEDER, B.; MARTENS, P.C.H.; ZARRO, D.; DEFOREST, C.; THOMPSON, B.; AULANIER, G.; DEMOULIN, P.; STCYR, C.; KUCERA, T.; BURKEPILE, J.T.; WHITE, O.R.; HANAOKA, Y.; NITTA, N.; MEIN, P.; MALHERBE, J.M.
Ground-based and space-based multi-instrument observations of the disparition brusque and CME activity of 25/26 September 1996 (Solicited Paper)
11:15 **ANDREWS, M.D.**; STRACHAN, L.; RAYMOND, J.C.; FINESCHI, S.; O'NEAL, R.; KOHL, J.L.; MORRIL, J.S.; HOWARD, R.A.; MODIGLIANI, A.; NOCI, G.; BIESECKER, D.A.; SCHWENN, R.; LAMY, P.L.
LASCO and UVCS observations and characterization of streamer CME on 13-14 August 97
11:30 **STRACHAN, L.**; RAYMOND, J.C.; FINESCHI, S.; O'NEAL, R.; KOHL, J.L.; MODIGLIANI, A.; NOCI, G.; ANDREWS, M.D.; MORRIL, J.S.; HOWARD, R.A.
Comparison of outflow velocity determinations with UVCS and LASCO for the coronal mass ejection jof 13-14 August 1997
11:45 **INNES, D.E.**; INHESTER, B.; HARRISON, R.; MATTHEWS, S.; NOENS, J.C.; SCHMIEDER, B.
Observations of an erupting prominence
12:00 **DELANNEE, C.**; DELABOUDINIERE, J.P.
Classification of coronal mass ejections in regards to the SOHO new view
12:15 HASSLER, D.M.; DAMMASCH, I.; LEMAIRE, P.; WILHELM, K.
Solar coronal hole outflow velocities and the chromospheric network *
12:30 **PICK, M.**; MAIA, D.; HOWARD, R.; LAMY, P.; SCHWENN, R.
Coronal mass ejections and large scale structure of the corona *
12:45 KUZHEVSKIJ, B.M.; **TROITSKAIA, E.V.**
Absorption of gamma-rays and diagnosis of solar plasma density altitude profile from the time dependence of solar flare gamma-line
13:00 END OF SESSION

ST14 Solar imprints in terrestrial archives (co-sponsored by OA)

Convener: Cini-Castagnoli, G.
Friday, 24 April 1998
Lecture Room: M4
Chairperson: N.N.

14:00 SVENSMARK, H.
Earth's cloud cover and cosmic ray flux variations
14:15 **BEER, J.**; MASARIK, J.
Reconstruction of the solar activity based on the analysis of cosmogenic radionuclides in ice cores
14:30 CHARVATOVA, I.
The basic 180-yr and 2200-yr cycles in the solar motion
14:45 CECCHINI, S.; **GALLI, M.**; NANNI, T.; PAGLIARIN, A.
Results of cyclogram analysis of El Nino occurrences to search for possible phase relationship with solar activity
15:00 **CINI-CASTAGNOLI, G.**; BERNASCONI, S.; BONINO, G.; DELLA MONICA, P.; TARICCO, C.
Solar variability imprinted in the $\delta^{18}O$ time series of a shallow water Mediterranean core
15:15 MÖRNER, N.-A.
Solar wind variations and terrestrial responses
15:30 END OF SESSION

ST15 Atmospheric ozone (co-sponsored by OA) .1 Modelling and validation with satellite data I

Convener: Vardavas, I.M.
Co-Convener(s): Taylor, F.W.
Wednesday, 22 April 1998
Lecture Room: M7
Chairperson: Taylor, F.W.
Editors: Taylor, F.W.; Vardavas, I.M.

14:00 KANAKIDOU, M.; DENTENER, F.J.; BERNSTEN,
ST15.1-001 T.K.; COLLINS, W.J.; HAUGLUSTAINE, D.A.; HOUWELING, S.; ISAKSEN, I.; KROL, M.; LAWRENCE, J.G.; MULLER, J.F.; POISSON, N.; ROELOFS, G.J.; WANG, Y.; WAUBEN, W.M.F.; LEVY, C.
3-D global simulations of tropospheric O_3 budget - results of the GIM/IGAC intercomparison 1997 exercise (Solicited Paper)
14:30 **CLERBAUX, C.**; HAUGLUSTAINE, D.; MILLER,
ST15.1-002 J.F.; GRANIER, C.
Tropospheric ozone and its precursors: IMG measurements and atmospheric models
14:45 **KNIGHT, J.R.**; AUSTIN, J.; BUTCHART, N.
ST15.1-003 Simulation of stratospheric constituents in a unified climate/forecast model
15:00 **LEVELT, P.F.**; KHATTATOV, B.V.; TIE, X.X.;
ST15.1-004 BRASSEUR, G.P.; GILLE, J.C.; KELDER, H.
Assimilation of the UARS/MLS ozone measurements in a 3-D stratospheric chemistry transport model
15:15 **BLAISON, D.**; KARCHER, F.
ST15.1-005 Inversion of ozone profiles from high resolution IASI spectra
15:30 **NOEL, S.**; BOVENSMANN, H.; BURROWS, J.P.;
ST15.1-006 FRERICK, J.; CHANCE, K.V.; GOEDE, A.H.P.
Global atmospheric monitoring with SCIAMACHY (Solicited Paper)

ST

16:00 VARDAVAS, I.M.; VLASTOU, G.
ST15.1-007 The role of water vapour photodissociation on mesopause ozone
16:15 **BRÜHL, CH.**; INGHAM, T.
ST15.1-008 Effect of HOBr on catalytic destruction of ozone in the lower stratosphere of midlatitudes, model studies initialized with UARS/HALOE data
16:30 **BARON, PH.**; RICAUD, PH.; DE LA NOE, J.
ST15.1-009 Measurement of middle atmospheric trace gases from the sub-millimeter radiometer instrument aboard the Odin satellite
16:45 PUTZ, E.; **PFISTER, G.**
ST15.1-010 Sensitivity of photolysis rates $J(O_1D)$ and $J(NO_2)$ to different atmospheric conditions
17:00 END OF PART I

ST15 Atmospheric ozone (co-sponsored by OA)
.1 Modelling and validation with satellite data II

Convener: Vardavas, I.M.
Co-Convener(s): Taylor, F.W.
Thursday, 23 April 1998
Lecture Room: M7
Chairperson: Vardavas, I.M.
Editors: Taylor, F.W.; Vardavas, I.M.

08:30 **GUIRLET, M.**; KECKHUT, P.; GODIN, S.; MEGIE, G.
ST15.1-011 Long-term monitoring of stratospheric ozone at the Observatoire de Haute-Provence using ground-based and satellite instruments (Solicited Paper)
09:00 **ESKES, H.J.**; PITERS, A.J.M.; LEVELT, P.F.; ALLAART, M.A.F.
ST15.1-012 Variational assimilation of ozone total column satellite data in a 2D lat-lon tracer-transport model
09:15 **TEYSSEDRE, H.**; DE RUDDER, A.; LEFEVRE, F.; SIMON, P.
ST15.1-013 Climatology of the REPROBUS Chemistry-Transport Model coupled to the ARPEGE General Circulation Model
09:30 JAMES, P.M.
ST15.1-014 The wind field structure around ozone mini-holes: a Lagrangian perspective
09:45 **DAMERIS, M.**; GREWE, V.; HEIN, R.; SCHNADT, C.; BRÜHL, C.; STEIL, B.
ST15.1-015 Calculating the future development of the ozone layer with a dynamic-chemical GCM
10:00 **ENTZIAN, G.**; PETERS, D.
ST15.1-016 Annual variation of the statistical link between zonally asymmetric total ozone trend and decadal change in dynamics
10:15 **BERTAUX, J.L.**; HAUCHECORNE, A.; MANGIN, A.; COT, C.; TALAGRAND, O.; SIMON, P.; KYRÖLÄ, E.; ROSCOE, H.; HEMBISE, O.; BRASSEUR, G.P.
ST15.1-017 The MSDOL project: assimilation of GOMOS ozone data in a 3-D chemistry-transport model

10:30 Poster Summaries

ST15.1-018 ELANSKY, N.F.; **POSTYLYAKOV, O.V.**; MITIN, I.V.
Application of Monte Carlo simulation of multi scattering radiation transferee to error analysis of extended Brewer Umkehr method for ozone profile determination

ST15.1-019 PAPAYANNIS, A.; PORTENEUVE, J.; BALIS, D.; ZEREFOS, C.; GALANI, E.
Design of a new dial system for tropospheric and lower straospheric ozone monitoring in northern Greece
ST15.1-020 **LEZEAUX, O.**; DE LA NOE, J.; RICAUD, PH.; PETER, R.; CALISESI, Y.; GODIN, S.; WATERS, J.W.; FROIDEVAUX, L.; CHIPPERFIELD, M.
Validation of ground-based microwave measurements at the Bordeaux Observatory, France
ST15.1-021 BONASONI, P.; EVANGELISTI, F.; BONAFE, U.; FELDMANN, H.; MEMMESHEIMER, M.; STHOL, A.; TOSITTI, L.; KROMP-KOLB, L.H.
Stratosphere-troposphere exchange: case studies recorded at Mt. Cimone during VOTALP project
ST15.1-022 BRAMSTEDT, K.; WEBER, M.; ROZANOV, V.; HOOGEN, R.; DE BEEK, R.; BURROWS, J.P.; **EICHMANN, K.-U.**
Ozone vertical distributions from GOME/ERS-2 satellite data - II: observations in the arctic winters 1996/97 and 97/98
ST15.1-023 ROZANOV, V.; BRAMSTEDT, K.; EICHMANN, K.-U.; WEBER, M.; DE BEEK, R.; BURROWS, J.P.; **HOOGEN, R.**
Ozone vertical distributions with GOME/ERS-2 satellite data - I: comparison with independent measurements
ST15.1-024 **ROZANOV, E.**; ZUBOV, V.; SCHLESINGER, M.; YANG, F.; ANDRONOVA, N.
Three-dimensional simulations of ozone in the stratosphere and comparison with UARS data
ST15.1-025 **EGOROVA, T.**; ZUBOV, V.; YAGOVKINA, S.; ROZAVOV, E.
Simulation of the atmospheric ozone distributions with the 2-D model and validations with HALOE and TOMS data
ST15.1-026 **EGOROVA, T.**; ZUBOV, V.; YAGOVKINA, S.; ROZAVOV, E.
Lightning production of NO_x and atmospheric ozone
ST15.1-027 ORSOLINI, Y.J.; **STEPHENSON, D.B.**; DOBLAS-REYES, F.J.
Storm track signature in total ozone during the northern hemisphere winter
ST15.1-030 ILYUSHIN, Y.A.; TEREKHOVA, O.A.
Approximate limb sounding data inversion

Stand-by papers
LANGEN, J.
ST15.1-028 Stratospheric chemistry and climate research using a limb sounding infrared spectrometer - the MIPAS instrument onboard ENVISAT *
LANGEN, J.
ST15.-1029 Ozone monitoring from space using the star occultation technique - the GOMOS instrument onboard ENVISAT *

11:00 END OF SESSION

Physics and Chemistry of the Earth

If you intend to organize an event at a larger meeting, a workshop or topical conference within geology, geochemistry, geophysics, hydrology, oceanography or atmospheric and planetary and space sciences, please consider *PCE* for the publication of your proceedings.

ST15 Atmospheric ozone (co-sponsored by OA)
.1 Modelling and validation with satellite data - Poster Session

Convener: Vardavas, I.M.
Co-Convener(s): Taylor, F.W.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 3 - ST
Chairperson: N.N.
Editors: Taylor, F.W.; Vardavas, I.M.

ST019 ST15.1-018 ELANSKY, N.F.; **POSTYLYAKOV, O.V.**; MITIN, I.V.
Application of Monte Carlo simulation of multi scattering radiation transferee to error analysis of extended Brewer Umkehr method for ozone profile determination

ST020 ST15.1-019 PAPAYANNIS, A.; PORTENEUVE, J.; BALIS, D.; ZEREFOS, C.; GALANI, E.
Design of a new dial system for tropospheric and lower straospheric ozone monitoring in northern Greece

ST021 ST15.1-020 **LEZEAUX, O.**; DE LA NOE, J.; RICAUD, PH.; PETER, R.; CALISESI, Y.; GODIN, S.; WATERS, J.W.; FROIDEVAUX, L.; CHIPPERFIELD, M.
Validation of ground-based microwave measurements at the Bordeaux Observatory, France

ST022 ST15.1-021 BONASONI, P.; EVANGELISTI, F.; BONAFE, U.; FELDMANN, H.; MEMMESHEIMER, M.; STHOL, A.; TOSITTI, L.; KROMP-KOLB, L.H.
Stratosphere-troposphere exchange: case studies recorded at Mt. Cimone during VOTALP project

ST023 ST15.1-022 BRAMSTEDT, K.; WEBER, M.; ROZANOV, V.; HOOGEN, R.; DE BEEK, R.; BURROWS, J.P.; **EICHMANN, K.-U.**
Ozone vertical distributions from GOME/ERS-2 satellite data - II: observations in the arctic winters 1996/97 and 97/98

ST024 ST15.1-023 ROZANOV, V.; BRAMSTEDT, K.; EICHMANN, K.-U.; WEBER, M.; DE BEEK, R.; BURROWS, J.P.; **HOOGEN, R.**
Ozone vertical distributions with GOME/ERS-2 satellite data - I: comparison with independent measurements

ST025 ST15.1-024 **ROZANOV, E.**; ZUBOV, V.; SCHLESINGER, M.; YANG, F.; ANDRONOVA, N.
Three-dimensional simulations of ozone in the stratosphere and comparison with UARS data

ST026 ST15.1-025 **EGOROVA, T.**; ZUBOV, V.; YAGOVKINA, S.; ROZAVOV, E.
Simulation of the atmospheric ozone distributions with the 2-D model and validations with HALOE and TOMS data

ST027 ST15.1-026 **EGOROVA, T.**; ZUBOV, V.; YAGOVKINA, S.; ROZAVOV, E.
Lightning production of NO_x and atmospheric ozone

ST028 ST15.1-027 ORSOLINI, Y.J.; **STEPHENSON, D.B.**; DOBLAS-REYES, F.J.
Storm track signature in total ozone during the northern hemisphere winter

ST028A ST15.1-30 ILYUSHIN, Y.A.; TEREKHOVA, O.A.
Approximate limb sounding data inversion

ST15 Atmospheric ozone (co-sponsored by OA)
.2 Polar ozone

Convener: Krivolutsky, A.A.
Thursday, 23 April 1998
Lecture Room: M7
Chairperson: Krivolutsky, A.A.

11:30 **STOWASSER, M.**; OELHAF, H.; WETZEL, G.; FISCHER, H.; FRIEDL-VALLON, F.; MAUCHER, G.; SEEFELDNER, M.; TRIESCHMANN, O.; V. CLARMANN, T.
Stratospheric arctic winter profiles of N_2O, CH_4, H_2O and HDO, measured by MIPAS-B

11:45 **MÜLLER, K.P.**; BAUMGARTEN, G.; SIEBERT, J.; FRICKE, K.H.
Lidar observations of leewave induced PSCS above esrange in northern Sweden

12:00 **FIERLI, F.**; HACUHEÇORNE, A.; MEHRTENS, H.
PSC lidar measurements interpretation by a Mie model

12:15 **RENARD, J.B.**; PAYAN, S.; CAMY-PEYRET, C.; HAWAT, T.; HUGUENIN, D.; JESECK, P.; KANZAWA, H.; LEFEVRE, F.; PIRRE, M.; ROBERT, C.; SASANO, Y.
NO_2 balloon-borne measurements during the ILAS validation campaign

12:30 FRANKE, B.; **KLEIN, U.**; KÜNZI, K.F.; LANGER, J.; SINNHUBER, B.-M.; WOHLTMANN, I.
Measurements of stratospheric ozone and chlorine monoxide over Ny-Ålesund, Spitsbergen, in 1997 and 1998

12:45 AIKIN, A.C.; MORRIS, G.A.
Polar ozone as observed by ADEOS ILAS and TOMS instruments

13:00 LUNCH

Chairperson: Baier, F.

14:00 **KRIVOLUTSKY, A.**; VARGIN, P.
QBO variability of total ozone for Antarctic springs and its relation to planetary waves intensity

14:15 **GÜNTHER, G.**; BAIER, F.
Simulation of the dynamics and chemistry of the Arctic stratosphere during the winters 1995/96 and 1996/97

14:30 **ENELL, C.F.**; MEIER, A.; STEEN, A.; COORAY, V.; WAGNER, T.; PFEILSTICKER, K.; PLATT, U.; JOHNSTON, P.
A discussion on the variability of atmospheric trace gas concentrations and other high latitude phenomena

14:45 **LEFEVRE, F.**; CARSLAW, K.S.; PETER, T.
The 1998 Arctic ozone depletion quantified from three-dimensional model simulations

15:00 **ROZANOV, E.**; ZUBOV, V.; SCHLESINGER, M.; YANG, F.; ANDRONOVA, N.
Simulation of the annual cycle of total ozone over northern high latitudes and comparison with TOMS data

15:15 **BECKER, G.**; MÜLLER, R.; MCKENNA, D.S.; REX, M.
Modeled ozone loss in the Arctic stratosphere in comparison to results of the Match experiments

15:30 **VAN DEN BROEK, M.M.P.**; GOEDE, A.; BREGMAN, A.; LELIEVELD, J.
Stratospheric chemistry modelling: results of a box model and a three-dimensional chemistry transport model

15:45 KNUDSEN, B.M.; LAHOZ, W.A.; O'NEILL, A.; MORCRETTE, J.-J.
Evidence for a substantial role for dilution in northern mid-latitude ozone depletion

16:00 **FLENTJE, H.**; RENGER, W.; WIRTH, M.; O'NEILL, A.; LAHOZ, W.A.; HEAPS, A.
Comparison of airborne lidar measurements with high resolution tracer transport models

16:15 KRIVOLUTSKY, A.
Concluding remarks

16:30 END OF SESSION

ST15 Atmospheric ozone (co-sponsored by OA)
.2 Polar ozone - Poster Session

Convener: Krivolutsky, A.A.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 3 - ST
Chairperson: Krivolutsky, A.A.

ST029 SHUMILOV, O.I.; KASATKINA, E.A.; **RASPOPOV, O.M.**
Tropospheric ozone recording in high latitudes

ST030 **BOJKOV, B.R.**; BEINE, H.J.
Ozone measurements in the lower troposphere over Ny-Ålesund, Svalbard (78°55'N, 11°53'E)

ST031 **SPICHTINGER-RAKOWSKY, N.**; FABIAN, P.
The thermal structure of the Antarctic lower stratosphere before and after the detecting of the ozone hole

ST032 **REDAELLI, G.**; MACKENZIE, A.R.; RIZI, V.; VISCONTI, G.; CHIPPERFIELD, M.P.; RUDAKOV, V.V.; STEFANUTTI, L.
Transport related O_3 variations during the airborne polar experiment

ST033 JADIN, E.A.; **KADYGROV, V.E.**; DIANSKY, N.A.
Analysis of interannual variations in total ozone and stratospheric circulation

ST034 BELOGOLOV, V.S.
Total ozone content over Murmansk

ST035 **KIVI, R.**; KYRÖ, E.; RONTU, L.; WEDEKIND, C.; STEIN, B.; WILLE, H.; DÖRNBRACK, A.; MITEV, V.; MATTHEY, R.; ROSEN, J.; RIZI, V.; LAZZAROTTO, B.; CALPINI, B.; STEFANUTTI, L.; DEL GUASTA, M.
Polar stratospheric cloud measurements by lidar and balloon borne sondes at Sodankylä in 1996/1997

ST036 **ZAHARIEV, V.**; KOLEV, S.I.; GERNANDT, H.
About the changes of the ozone content over the east Antarctica

ST15 Atmospheric ozone (co-sponsored by OA)
.3 Changes in UV-B radiation - Poster Session

Convener: Krüger, B.C.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 3 - ST
Chairperson: N.N.

ST037 **PEETERS, P.**; MÜLLER, J.-F.; SIMON, P.C.; CELARIER, E.A.; HERMAN, J.R.
Using satellite measurements from GOME for the estimation of the UV irradiance at the Earth's surface

ST038 TOURPALI, K.; TSELIOUDIS, G.; VASSARAS, A.; BAIS, A.F.; ZEREFOS, C.S.
Relationships between the attenuation of surface UV irradiance and the radiative properties of the satellite-derived cloud field

ST039 **RENAUD, A.**; STAEHELIN, J.; PHILIPONA, R.; HEIMO, A.
Snow and clouds effects on the erythemal UV radiation. Analysis of Swiss measurements and modelization

ST040 **KUZNETSOV, G.I.**; MANOILO, A.V.
Volcanic eruptions impact on ultra violet radiation regime

ST041 DUBROVSKY, M.
The dependence of the solar UV-B radiation on total ozone and solar zenith angle

ST042 **BRÖNNIMANN, S.**; NEU, U.
Can increased UV radiation cause surfacce ozone episodes?

ST043 **KRÜGER, B.C.**; KIRCHNER, F.; PEREGO, S.
The influence of radiation on tropospheric chemistry

ST044 **BEINE, H.J.**; DAHLBACK, A.
$J(NO_2)$ at Ny-Ålesund: measurement and model calculation

ST045 PHILIPONA, R.; SHILLING, A.; FROHLICH, C.; HEIMO, A.; RENAUD, A.
Maximum UV-levels measured on alpine radiation stations

ST046 **KRZYSCIN, J.W.**; BORKOWSKI, J.
Long-term changes of the surface UV radiance at Belisk, Poland, 1966-1996

ST047 CASALE, G.R.; DEBUS, S.; MELONI, D.; SIANI, A.M.; PALMIERI, S.
UV-B radiation and ozone behaviour at Rome station in the recent six years

ST048 ZEREFOS, C.S.
Preliminary results from PAUR 1

ST048A **RAJEWSKA-WIECH, B.**; KRZYSCIN, J.W.; DEGORSKA, M.
Impact of ozone profile on the surface UV radiation: analyses of the Umkehr and UV data taken at Belsk, Poland, 1976-1997

ST15 Atmospheric ozone (co-sponsored by OA)
.4 Tropospheric ozone with emphasis on the Mediterranean region - Poster Session

Convener: Varotsos, C.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 3 - ST
Chairperson: Beekmann, M.
Editors: Varotsos, C.; Kondratyev, K.Ya.

ST049 ST15.4-016 **MÖLLER, D.**; KALASS, D.; ACKER, K.; WIEPRECHT, W.
Five-year record of ozone at Mt. Brocken (Germany) - implications for changing heterogeneous chemistry

ST050 ST15.4-017 **GIMENO, L.**; RUA, A.; MARTIN, I.; GARCIA, R.; HERNANDEZ, E.
Diurnal variations of the surface ozone in Spain

ST051 ST15.4-018 **GIMENO, L.**; RUA, A.; MARTIN, I.; GARCIA, R.; HERNANDEZ, E.
Monthly variation of the surface ozone in Spain

ST052 ST15.4-019 **GIMENO, L.**; RUA, A.; MARTIN, I.; GARCIA, R.; HERNANDEZ, E.
Geographical sources of surface ozone in Spain

ST053 ST15.4-020 **GIMENO, L.**; RUA, A.; MARTIN, I.; GARCIA, R.; HERNANDEZ, E.
On the origin of the elevated surface ozone concentration in Spain

ST054 ST15.4-021 BRÖNNIMANN, S.
Early spring ozone episodes: occurrence and case study

ST055 ST15.4-022 VAROTSOS, C.; CHRONOPOULOS, G.
Vertical ozone distribution in the troposphere at Athens, Greece

ST056 ST15.4-023 CHRONOPOULOS, G.; ALEXANDRIS, D.; VAROTSOS, C.
A statistical model for the relationship of ozone and its precursors at Athens basin

ST057 ST15.4-024 COEUR, C.; **JACOB, V.**; FOSTER, P.
Gas phase reaction of hydroxyl radical with the natural hydrocarbon bornyl acetate

ST058 ST15.4-025 VAROTSOS, C.; IATROU, T.
Surface ozone measurements over Athens based on the historical data for the period 1901-1940

ST059 ST15.4-026 VAROTSOS, C.; ALEXANDRIS, D.
The role of water vapour on the tropospheric ozone depletion

ST060 ST15.4-027 VAROTSOS, C.
On the role of sea salt particles in polluted marine areas

ST061 ST15.4-028 CATSAMBAS, A.; FERETIS, E.; SAKELARIOU, N.; KONDRATYEV, K.YA.; ANTONIOU, C.
Tropospheric ozone related changes in biologically active ultraviolet radiation

ST062 ST15.4-029 CATSAMBAS, A.; FERETIS, E.; SAKELARIOU, N.; KONDRATYEV, K.YA.; ANTONIOU, C.
On the role of air pollution on the solar radiation reaching the ground

ST063 ST15.4-030 SHAROBIEM, W.M.; ZAKEY, A.S.
Tropospheric ozone and supher dioxide in Cairo atmosphere

ST064 ST15.4-031 KOLOUTSOU-VAKAKIS, S.; CARRICO, C.M.; LI, Z.; ROOD, M.J.; OGREN, J.
Characterization of aerosol properties and direct radiative forcing at an anthropogenically perturbed continental site

ST065 ST15.4-032 KONDRATYEV, K.YA.; MELNIKOVA, I.; VAROTSOS, C.; BORISENKOV, E.; GUSCHIN, G.; VOEYKOV, A.I.
Surface ultraviolet radiation and ozone content as indicators of environmental quality

ST066 ST15.4-033 **VAROTSOS, C.**; KONDRATYEV, K.YA.; MELNIKOVA, I.N.; GUSCHIN, G.P.
Cloud impact on surface ultraviolet radiation

ST066A ST15.4-034 **JAROSLAWSKI, J.**; PRZYBYLSKA, G.
Surface ozone concentrations at rural locations in Poland in 1996

ST15 Atmospheric ozone (co-sponsored by OA)
.4 Tropospheric ozone with emphasis on the Mediterranean region

Convener: Varotsos, C.
Friday, 24 April 1998
Lecture Room: M7
Chairperson: Varotsos, C.
Editors: Varotsos, C.; Kondratyev, K.Ya.

08:45 ST15.4-001 **ANCELLET, G.**; BEEKMANN, G.
Short and long term variability of the vertical ozone profile in the Mediterranean region

09:00 ST15.4-002 VAROTSOS, C.; ALEXANDRIS, D.; CHRONOPOULOS, G.
On the role of the lower-stratospheric circulation to the vertical ozone structure

09:15 ST15.4-003 ALEXANDRIS, D.
Free tropospheric ozone variations at Athens, Greece

09:30 ST15.4-004 **MÜNZENBERG-ST. DENIS, A.**; RENNER, E.; WOLKE, R.
Numerical investigation of the influence of biogenic emissions on ozone in Saxony (Germany)

09:45 ST15.4-005 CHRONOPOULOS, G.; VAROTSOS, C.
On the seasonal variation of photo-oxidants at the greater Athens area

10:00 ST15.4-006 SANZ, M.J.; CARRATALA, A.; MANTILLA, E.; MILLAN, M.
Daily ozone patterns and AOT40 index in east coast of the Iberian peninsula

10:15 ST15.4-007 BASTRUP-BIRK, A.; BRANDT, J.; ZLATEV, Z.
Studying periods of high ozone concentrations in the Mediterranean region during a 7-year period

10:30 BREAK

Chairperson: Ancellet, G.M.
Editors: Varotsos, C.; Kondratyev, K.Ya.

11:00 ST15.4-008 **SANZ, M.J.**; CALTAYUD, A.; CALVO, E.
Ozone injury spatial pattern in Aleppo pine and air pollution dynamics in the Mediterranean

11:15 ST15.4-009 IATROU, T.
On the ozone content of the free troposphere over Athens, Greece, as derived by using in situ techniques

11:30 ST15.4-010 EFSTATHIOU, M.
On the statistical analysis of tropospheric and stratospheric ozone content over Athens, Greece

ST

11:45 ALEXANDRIS, D.
ST15.4-011 Tropospheric ozone contribution to surface warming at Athens, Greece
12:00 **RAPPENGLÜCK, B.**; OYOLA, P.; OLAETA, I.; FABIAN, P.
ST15.4-012 Photochemical smog in Santiago de Chile - relationships between precursors NO_x, CO, NMHC and secondary compounds ozone and PAN
12:15 **VARINOU, M.**; KALLOS, G.; SISTLA, G.
ST15.4-013 The role of anthropogenic and biogenic emissions on tropospheric ozone formation over Greece
12:30 **KREUZWIESER, J.**; RENNENBERG, H.
ST15.4-014 Production and eimission of acetaldehyde in trees
12:45 VAROTSOS, C.; ALEXANDRIS, D.; CHRONOPOULOS, G.
ST15.4-015 Solar effective UV irradiance at height levels form the surface to the tropopause
13:00 END OF SESSION

ST15 Atmospheric ozone (co-sponsored by OA) .5 Ozone as a climate gas

Convener: Shine, K.P.
Co-Convener(s): Hauglustaine, D.A.
Friday, 24 April 1998
Lecture Room: M7
Chairperson: Shine, K.P.

14:00 **ROELOFS, G.J.**; LELIEVELD, J.
Changing distribution of tropospheric O_3 and its radiative forcing of climate: past, present, and future (Solicited Paper)
14:30 **STEVENSON, D.S.**; JOHNSON, C.E.; COLLINS, W.J.; DERWENT, R.G.; EDWARDS, J.M.; SHINE, K.P.
The time evolution of tropospheric ozone radiative forcing
14:45 **HAUGLUSTAINE, D.A.**; BRASSEUR, G.P.
Impact of anthropogenic activities on tropospheric ozone
15:00 **PFEILSTICKER, K.**; FUNK, O.; KURZ, C.; VEITEL, H.J.; PLATT, U.
Lévy flights by photons in cloudy skies? Implications for the SW-heating of tropospheric ozone
15:15 KAROL, I.L.; KISELEV, A.A.
The tropospheric carbon monoxide distribution in the northern temperate belt as the 2-D model calculation result
15:30 **DEGORSKA, M.**; KRZYSCIN, J.W.; RAJEWSKA-WIECH, B.
Longitudinal differences in seasonal ozone changes over northern midlatitudes
15:45 BREAK

Chairperson: Hauglustaine, D.A.

16:00 **PAWSON, S.**; LABITZKE, K.; LEDER, S.
Lower stratospheric temperatures and their relationship with ozone trends (Solicited Paper)
16:30 **KYRÖ, E.**; KIVI, R.; TURUNEN, T.
Trends in tropospheric and lower stratospheric ozone in European Arctic
16:45 TOURPALI, K.; ZEREFOS, C.S.; BOJKOV, B.R.; KOEHLER, U.; DE MUER, D.
Ozone and temperature variability over the north European and Canadian regions
17:00 CHRISTIANSEN, B.
Ozone: radiative forcing and climate sensitivity
17:15 **PONATER, M.**; SAUSEN, R.; FENEBERG, B.; ROECKNER, E.
Present-day and future impact of aircraft induced ozone changes
17:30 **ROSIER, S.M.**; FORSTER, P.M. DE F.
Experiments employing ozone changes in a general circulation model
17:45 **FORTUIN, P.**; SIEGMUND, P.; ROECKNER, E.
The effect of a more realistic ozone distribution on climate simulation with a GCM
18:00 SHINDELL, D.T.
Future trends in upper stratospheric ozone: progression from halogen to climate control *
18:15 END OF SESSION

ST16 Stratosphere-troposphere-exchange (co-sponsored by OA) I

Convener: Wirth, V.
Co-Convener(s): Haynes, P.H.
Wednesday, 22 April 1998
Lecture Room: M6
Chairperson: Haynes, P.H.

1. Large-scale transport/exchange/processes
a) General circulation questions

08:45 PLUMB, R.A.
Dynamics and transport in the lower stratosphere (Solicited Paper)
09:15 **SIEGMUND, P.**; VAN VELTHOVEN, P.; KELDER, H.
The residual mean meridional circulation in the lower stratosphere, diagnosed from 15 years of ECMWF-reanalysis data
09:30 JUCKES, M.N.
The meridional circulation in the lowermost stratosphere
09:45 **CRAIG, G.C.**; THUBURN, J.
The radiative constraint on tropopause height

2. Chemical distributions in the lowermost stratosphere/tropopause region
a) Lowermost stratosphere

10:00 BORRMANN, S.
Heterogenous chemistry in the tropopause region (Solicited Paper)
10:30 **BREGMAN, A.**; LELIEVELD, J.
Mixing of tropospheric air into the mid-latitude stratosphere and its role in atmospheric chemsitry
10:45 **EICKE, N.**; BUJOK, O.; FISCHER, H.; MCKENNA, D.S.; SCHILLER, C.; SCHLAGER, H.; ZÖGER, M.
The dry lowermost stratosphere in the arctic winter: evidence for local dehydration
11:00 **ZAHN, A.**; PLATT, U.
Airborne CO_2, CH_4, O_3 and SF_6 measurements to study tracer transport around the tropopause
11:15 **BÜHLER, S.A.**; KÜNZI, K.
Microwave limb-sounding of water vapour in the tropopause region
11:30 **BUJOK, O.**; EICKE, N.; ENGEL, A.; LELIEVELD, J.; MCKENNA, D.S.; SCHILLER, C.; ZÖGER, M.
Experimental evidence for the existence of a very lowermost stratosphere

11:45 HESS, P.
Analysis of the seasonal transport of ozone and water vapor into the lower stratosphere
12:00 LUNCH
12:00 Business Meetings

Chairperson: Borrmann, S.

b) Tropics/subtropics

14:00 **WEINSTOCK, E.M.**; HINTSA, E.J.; ANDERSON, J.G.; BOERING, K.A.; DAUBER, B.C.; WOFSY, S.C.; HERMAN, R.L.; MAY, R.D.; WEBSTER, C.R.
Evaluation of the seasonal cycle of water vapor in the stratosphere derived from monthly average tropical tropopause temperatures using a CO photochemical clock (Solicited Paper)
14:30 SUHRE, K.; CAMMAS, J.-P.; NEDELEC, P.; **ROSSET, R.**; MARENCO, A.; SMIT, H.G.J.
Ozone-rich transients in the upper equatorial Atlantic troposphere
14:45 **DETHOF, A.**; O'NEILL, A.; SLINGO, J.
Water vapour transport associated with the Asian summer monsoon
15:00 **CAMMAS, J.-P.**; JACOBY-KOALY, S.; SUHRE, K.; ROSSET, R.; MARENCO, A.
Stratosphere-troposphere exchange across the potential vorticity barrier of the subtropical jet as seen with MOZAIC-ozone measurement

Chairperson: Wirth, V.

3. Synoptic- and small-scale exchange/processes
a) Folds, laminae, relevant processes

15:15 **MCKENNA, D.**; LERNER, A.
Observations of trace gases in the vicinity of a tropopause fold
15:30 **MANCIER, C.**; BEEKMANN, M.; ANCELLET, G.; MARENCO, A.
Spatial and temporal variability of tropopause folds occurrence - implications for the cross tropospheric ozone flux
15:45 **CAMMAS, J.-P.**; RAVETTA, F.; ANCELLET, G.
Life cycle of a tropopause fold
16:00 **WORTHINGTON, R.M.**; VAUGHAN, G.
Case study of stratosphere troposphere exchange using VHF wind profiler, ozonesonde, radiosonde and E.C.M.W.F. data
16:15 **FORSTER, C.**; WIRTH, V.
Radiative decay of stratospheric laminae in the troposphere

b) VOTALP

16:30 **FELDMANN, H.**; MEMMESHEIMER, M.; STOHL, A.; TRICKL, T.; BONASONI, P.; GAEGGELER, H.; GRABER, W.; KROMP-KOLB, H.
VOTALP: observation and simulation of a stratospheric intrusion event over the Alps
16:45 **ZANIS, P.**; SCHUEPBACH, E.; GGGELER, H.W.; HBENER, S.; STOHL, A.
A summer stratospheric intrusion event at Jungfraujoch (3,580 m ASL) in Switzerland
17:00 END OF PART I

ST16 Stratosphere-troposphere-exchange (co-sponsored by OA) II

Convener: Wirth, V.
Co-Convener(s): Haynes, P.H.
Thursday, 23 April 1998
Lecture Room: M6
Chairperson: Craig, G.C.

c) Various other case studies etc.

08:30 **KOWOL-SANTEN, J.**; RAVETTA, F.; EBEL, A.
Analysis of transport and exchange processes in the tropopause region by means of Lagrangian methods
08:45 **GOUGET, H.**; VAUGHAN, G.
Case study of a cut-off low during TOASTE-C campaign
09:00 **RAVETTA, F.**; ANCELLET, G.; KOWOL-SANTEN, J.
Stratosphere-troposphere exchange within a cut-off low: airborne measurement campaign and mesoscale modelling
09:15 **WIRTH, V.**; EGGER, J.
Diagnosing extratropical stratosphere-troposphere exchange: a case study
09:30 TAFFERNER, A.
Stratosphere-troposphere exchange in a stratospheric intrusion
09:45 **HEREIL, P.**; VAN BAELEN, J.
Nonhydrostatic numerical simulations and wind profilers observations of a cut-off low episode near the Alps
10:00 **PERSSON, K.**; NILSSON, H.; KIRKWOOD, S; CHILSON, P.
Study of stratosphere troposphere exchange at high latitudes with MST radar and ozonesondes
10:15 BREAK

Chairperson: Hess, P.

10:45 **SCHULZ-SCHÖLLHAMMER, K.**; MARQUARDT, C.; SINGER, W.; HOFFMANN, P.
A case study to identify layers with laminor or turbulent flows using ST radar and radiosonde observations and trajectory calculations
11:00 **SINGER, W.**; HOFFMANN, P.; KEUER, D.; CZECHOWSKY, P.
Observations of the tropopause region above Andenes during the break up of the polar vortex in March 1995 with the ALOMAR SOUSY radar

1.b) GCMs

11:15 **BOURQUI, M.**; WERNLI, H.; BRUNNER, D.
A climatology of stratosphere-troposphere ozone exchange for the Atlantic-European sector
11:30 **MANZINI, E.**; FEICHTER, J.
Transport in the middle atmosphere (MA) ECHAM general circulation model
11:45 **LAND, C.**; FEICHTER, J.; SAUSEN, R.
Transport simulations of natural tracers with the ECHAM GCM: sensitivity of stratosphere-troposphere exchange to the vertical resolution
12:00 TIMMRECK, C.
Stratospheric-tropospheric-exchange: a Pinatubo case study

12:15 **JACKSON, D.R.**; PAMMENT, J.A.; METHVEN, J.; POPE, V.D.
Transport in the low latitude tropopause region as simulated by the UK Meteorological Office Unified Model

12:30 **PLANTEVIN, P.H.**; SHALLCROSS, D.E.; LAW, K.S.; PYLE, J.A.
Chemical impact on the troposphere of tropopause fold events during TOASTE campaigns

12:45 **KENTARCHOS, A.**; ROELOFS, G.J.; LELIEVELD, J.
Simulation of a stratospheric intrusion event at subtropical latitudes using a coupled chemistry-general circulation model

13:00 LUNCH
Joint Session ST16/NP3.5 to continue in Lecture Room M3 at 14.00

Lecture Room: M3
Chairperson: Waugh, D.W.

4. Joint session ST16/NP3.5
a) Techniques such as RDF

14:00 **MCKENNA, D.**; BUJOK, O.; THOMAS, N.
Comparison of RDF with in-situ data (Solicited Paper)

14:30 **AMBAUM, M.**; BUJOK, O.
Correction for phase errors in lagrangian modelling of tracer filameters

14:45 **BITHELL, M.**; GRAY, L.J.
Isentropic and three dimensional trajectories near the tropopause

15:00 **METHVEN, J.**; HOSKINS, B.
On the advection of high resolution tracers by low resolution winds

15:15 **MARIOTTI, A.**; LEGRAS, B.; MECHOSO, C.R.
Pseudo-contour advection with surgery

b) Studies using observed/model winds

15:30 SHUCKBURGH, E.
Investigating transport across the tropopause

15:45 **BAGLIANI, M.**; FRAEDRICH, K.; VON HARDENBERG, J.; LUNKEIT, F.
Lagrangian climatology of a simplified general circulation model

16:00 **LAPEYRE, G.**; LEGRAS, B.
A criterion for the formation of filaments around the polar vortex

16:15 BRUNET, G.; GRAVEL, S.; ROCH, M.; GAUTHIER, P.; PELLERIN, S.; EK, N.; **EDOUARD, S.**
High resolution forecasts of polar stratospheric ozone using the Canadian Global Environmental Multiscale Model

16:30 END OF PART II

Attend the Poster Session

and the

Exhibition

ST16 Stratosphere-troposphere-exchange (co-sponsored by OA) III

Convener: Wirth, V.
Co-Convener(s): Haynes, P.H.
Friday, 24 April 1998
Lecture Room: M3
Chairperson: McKenna, D.

Joint ST16/NP3.5 session continued

c) Lower stratospheric tracer studies

08:30 WAUGH, D.W.
Seasonal variation of stirring and mixing in the lower stratosphere (Solicited Paper)

09:00 **ALFIER, R.**; PAWSON, S.; KETELSEN, K.
Fine structure of water vapour transport at the polar vortex

09:15 **LEDER, S.**; BECK, A.
The relationship between the exchange across the subtropical barrier and planetary wave activity in a global model

09:30 **GODIN, S.**; BERGERET, V.; BEKKI, S.; DAVID, C.; HAUCHECORNE, A.
Lidar aerosol measurements showing the stratified structure of the Antarctic polar votex in the spring of 1992

09:45 **HAUCHECORNE, A.**; GODIN, S.; SOUPRAYEN, C.
Meridional transport of ozone in the lower stratosphere at middle latitudes: lidar observations and simulation with a high resolution advection model

10:00 **ROZANOV, E.**; ZUBOV, V.; SCHLESINGER, M.; YANG, F.; ANDRONOVA, N.
Simulation of trace-gas distributions with the UIUC 3-D atmospheric chemical-transport model and comparison of source gas distributions with observations

10:15 **CAHILL, M.**; PLANTEVIN, P.H.; LAW, K.S.; SHALLCROSS, D.E.; CHIPPERFIELD, M.; EVANS, M.; PYLE, J.A.; GERBIG, C.; RICHER, H.; BAUGUITTE, S.; BANDY, B.; MILLS, G.; PENKETT, S.
A comparison of flight measurements from summer '97 with TOMCAT

10:30 BREAK
End of Session ST16/Session NP3.5 to continue

ST17 Aviation and space flight (co-sponsored by OA)
.1 Aviation impact on the atmosphere

Convener: Kelder, H.
Co-Convener(s): Sausen, R.
Monday, 20 April 1998
Lecture Room: M8
Chairperson: Kelder, H.

08:30 **SCHLAGER, H.**; SCHUMANN, U.
The POLINAT-2 experiment: a study of large-scale air traffic effects (Solicited Paper)

08:55 **MEIJER, E.W.**; WAUBEN, W.M.F.; VAN VELTHOVEN, P.F.J.; KELDER, H.M.
The impact of air traffic in the NAFC: model results versus measurements

09:10 **DENTENER, F.J.**; ABILOVA, E.; BERNSTEN, T.; GREWE, V.; ISAKSEN, I.; MUELLER, J.F.; STEVENSON, D.; WANG, Y.; VAN WEELE, M.
The IPCC special report on aviation and the global atmosphere: the impact of future subsonic aircraft emisions

09:25 **GREWE, V.**; DAMERIS, M.; KÖHLER, I.; PONATER, M.; SAUSEN, R.
The impact of NO_x aircraft emissions on atmospheric composition and climate

09:40 **SIMON, P.**; DESSENS, O.
Simulation of the airccraft effects upon the atmospheric chemistry

09:55 **STEVENSON, D.S.**; JOHNSON, C.E.; COLLINS, W.J.; DERWENT, R.G.
Aircraft NO_x impacts on tropospheric ozone

10:10 **GROSE, W.L.**; ECKMAN, R.S.
Global impact of a future High-Speed Civil Transport (HSCT) aircraft fleet on the atmospheric ozone column: a three-dimensional model simulation

10:25 BREAK

Chairperson: Sausen, R.

10:40 **HOFMANN, D.J.**; WOOD, M.; STONE, R.;. DESHLER, T.
Analysis of 24 years of balloon-borne aerosol data to determine the effects of subsonic aircraft (Solicited Paper)

11:05 **PETRY, H.**; HENDRICKS, J.; LIPPERT, E.; MEIER, A.; EBEL, A.; SAUSEN, R.
Chemical conversion of aircraft emissions in the dispersing plume: calculation of effective emissions indices

11:20 MÜLLER, J.-F.
Upper tropospheric HOx: sources and role in the aircraft impact issue

11:35 **HENDRICKS, J.**; LIPPERT, E.; PETRY, H.; EBEL, A.
Impact of subsonic aircraft on atmospheric chemistry: mesoscale simulations on the role of heterogeneous reactions on/in sulfate aerosols

11:50 **PRASAD, S.S.**; ZIPF, E.C.
Emerging new atmospheric chemistry of nitric oxide and its implications for the aviation impact on the atmosphere

12:05 **SCHRÖDER, F.**; KÄRCHER, B.; PETZOLD, A.
In situ observations of aerosol particles in jet aircraft plumes

12:20 **SLEMR, F.**; GIEHL, H.; SLEMR, J.; BUSEN, R.; SCHULTE, P.; HASCHBERGER, P.
In-flight measurements of aircraft non-methane hydrocarbon emission indices

12:35 BOUCHER, O.
Is there any observable increase in cirrus cloud due to aviation during 1982-1991?

12:50 **WYSER, K.**; STRÖM, J.
A possible change in cloud radiative forcing due to aircraft exhaust

13:05 **PONATER, M.**; GIERENS, K.; SAUSEN, R.; BRINKOP, S.; INCLAN, G.
Parametrization of contrails in a climate model

13:20 END OF SUB-SESSION

17:00 Opening

19:30 Reception

ST17 Aviation and space flight (co-sponsored by OA)
.1 Aviation impact on the atmosphere - Poster Session

Convener: Kelder, H.
Co-Convener(s): Sausen, R.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 3 - ST

ST067 **ECKMAN, R.S.**; GROSE, W.L.
Three-dimensional modelling studies of the impact of aircraft emissions on atmospheric ozone: sensitivity to emission indices H_2O, and sulfur conversion

ST068 **GABRIEL, A.**; SCHMITZ, G.
Climate impact of aircraft emissions in the upper troposphere. Studies with a 2D-model

ST069 KAROL, I.L.; KISELEV, A.A.
Model study of atmospheric pollution by aviation engines in the northern temperate belt

ST070 LINDERMEIR, E.; HASCHBERGER, P.; TANK, V.
Remote measurements of aircraft exhaust gas using FTIR spectrometry at industrial test-rigs

ST072 **ROZANOV, E.**; ZUBOV, V.; SCHLESINGER, M.; YANG, F.; ANDRONOVA, N.
The influence of aircraft emissions on the geographical distributions of ozone and reservoir species in the upper troposphere and stratosphere

ST073 **SAUSEN, R.**; GIERENS, K.; SCHUMANN, U.
A diagnostic study of the present and future coverage by contrails

ST074 SOROKIN, A.
Ice contrail formation in jet of ATTAS aircraft *

ST075 **ZIEREIS, H.**; SCHLAGER, H.; SCHULTE, P.; KÖHLER, I.
In situ measurements of NO_x in the North Atlantic flight corridor

ST076 WUNRAM, C.; BAKAN, S.
Environmental conditions for longlived contrails as derived from Mozaic data

ST17 Aviation and space flight (co-sponsored by OA)
.2 Air traffic meteorology and weather impact on aviation I

Convener: Hauf, T.
Co-Convener(s): André, J.-C.; Carriere, J.-M.; Corjon, A.
Monday, 20 April 1998
Lecture Room: M8
Chairperson: Carriere, J.-M.

14:00 HAUF, T.; SCHRÖDER, F.
Observations of aircraft and supercooled large drops

14:15 **TAFFERNER, A.**; HAUF, T.; HAFNER, T.
Diagnosis of icing and nowcasting for aviation (Poster)

14:20 IMPERATO, I.; LEONE, G.
In-flight icing cloud measurements by an airborne droplet analyser (Poster)

14:25 JENTINK, H.W.
Supercooled large droplets in icing conditions

14:40 **PIGEONNEAU, F.**; GUFFOND, D.; FEUILLEBOIS, F.
Theoretical study of the drizzle formation by co-alescence
14:55 SANCHEZ, J.L.; VEGA, A.; MARCOS, J.L.; FRAILE, R.
Giant supercooled drops in Cb
15:10 EVANS, J.
Impact of adverse weather on major US airports (Solicited Paper)
15:40 EVANS, J.
Reducing the impact of adverse terminal weather on major US airports with the Integrated Terminal Weather System (ITWS) (Poster)
15:45 PEKELA, W.D.
Influence of wind prediction on the capacity of a time-based ATM system
16:00 BENJAMIN, S.G.; SCHWARTZ, B.E.; JARDIN, M.; GREEN, S.
Wind and aircraft trajectory errors in the Denver terminal airspace from versions of the RUC
16:15 GIMENO, L.; **RUA, A.**; VIDAL, O.; FERNANDEZ, D.
Weather impact on the air traffic in the three airports of Galicia (Spain) (Poster)
16:20 **UTNES, T.**; EIDSVIK, K.J.
Computation of wind effects in the wake of buildings close to a runway (Poster)
16:25 **PATTON, R.**; LUNNON, R.W.
Investigation into lightning strikes to helicopters operating over the North Sea (Poster)
16:30 TURNER, J.
An automated scheme for predicting mountain wave induced turbulence for civil aviation (Poster)
16:35 END OF PART I
17:00 Opening
19:30 Reception

ST17 Aviation and space flight (co-sponsored by OA)
.2 Air traffic meteorology and weather impact on aviation II

Convener: Hauf, T.
Co-Convener(s): André, J.-C.; Carriere, J.-M.; Corjon, A.
Tuesday, 21 April 1998
Lecture Room: M8
Chairperson: Hauf, T.

08:30 **SHERRETZ, L.A.**; RODGERS, D.; WILSON, A.
Developing grid interaction and product generation tools for NWS aviation forecasters
08:45 **MAHONEY, J.**; HENDERSON, J.
Developing the real time verification system to support aviation forecasting and product development
09:00 **MARROQUIN, A.**; GIRZ, C.M.I.R.; MAHONEY, J.L.
Forecasting turbulence in the upper troposphere
09:15 PRATT, G.
Enhancing the aviation digital data service
09:30 VERRET, R.; TURCOTTE, M.-F.; SOUVANLASY, V.; BALTAZAR, M.
An interactive Aviation Weather Database (AWeD) (Poster)
09:35 WIENS, B.
Investigation of a graphical area forecast in Canada (Poster)
09:40 ENGFER, D.
AMETIS1 system for windshear and inversion warnings at the Zürich airport (Poster)
09:45 HUYNH, H.T.; DESCATOIRE, F.; HAHN, K.U.; KÖNIG, R.; HAVERDINGS, H.; ROUWHORST, W.F.J.A.
Simulation investigations into airborne reactive and forward looking windshear detection systems
10:00 **LAROCHE, P.**; BLANCHET, P.; DEFER, E.; THERY, C.
Comparison of ASR weather channel echo and 3D lightning observations in Florida storms
10:15 **MONNIER, B.**; BARBARESCO, F.
Storm forecasting with radar image processing based on model-constrained and gedesic active contours
10:30 BREAK

Chairperson: André, J.-C.

11:00 RICHARD, P.
New meteorological data fusion concepts for storm nowcasting applied to ATC
11:15 SANCHEZ, J.L.; VEGA, A.; AJO, J.; SERRANO, O.
Procedure for scientific flights in Cb (Poster)
11:20 **PATTON, R.**; HALSEY, N.; LUNNON, R.W.
User sensitivity to ceiling and visibility and its influence on terminal forecast verification
11:35 **MONNIER, B.**; BARBARESCO, F.
Inquiry into the ground ATC/ATM requirements for meteorological data (Poster)
11:40 GREENE, G.C.
Effects of weather on aircraft wake turbulence experienced during cruise flight
11:55 CAISSO, P.; VALENTIN, J.C.; **CORJON, A.**
SY.A.G.E. - The French wake vortex spacing system
12:10 YARAS, M.I.
Effects of atmospheric conditions and ground proximity on the dynamics of aircraft wake vortices: a study of the 1994-95 Memphis field measurements
12:25 HALLOCK, J.; BURNHAM, D.; SIGONA, J.
Analysis of stalled vortices at DFW airport
12:40 BURNHAM, D.; RUDIS, R.
Expexted performance of crosswind based warke vortex avoidance systems at DFW airport
12:55 LUNCH

Chairperson: Corjon, A.

14:00 PROCTOR, F.H.
NASA Langley's numerical modelling effort to understand the interaction of aircraft wake vortices with their environment (Solicited Paper)
14:30 **HOLZÄPFEL, F.**; GERZ, T.
Aircraft wave vortex characteristics in the stably stratified atmosphere
14:45 DARRACQ, D.; CORJON, A.
Computational investigation of aircraft trailing-vortex evolution in atmospheric boundary layers
15:00 DELISI, D.P.; GREENE, G.C.; ROBINS, R.E.
Comparison of laboratory wake vortices with aircraft vortices
15:15 **GOODEN, J.H.M.**; WILLEMSEN, E.; MARSMAN, A.
Vortex wake measurement test run facility Schiphol

15:30 GILLOT, B.; **MARAIS, C.**
Participation of Météo-France in wake vortices studies

15:45 KEANE, M.; BUCKTON, D.; DARRACQ, D.
Wake vortex hazard detection Doppler lidar

16:00 KÖPP, F.
More insight into aircraft wake vortices by means of ground-based CW Doppler lidar

16:15 **UHLMAN, J.**; GRANT, J.; FINE, N.; REES, F.
On the sound generated by aircraft trailing vortices: a description of the porject SOCRATES theory and modelling effort

16:30 TURNER, J.
ETWIRL: a new pan-European wake vortex reporting system and database

16:45 **SPITZER, E.**; REES, F.; VONWINKLE, W.; WILLIAMS, R.
An overview of porject SOCRATES (Poster)

16:50 NADEAU, M.
A success story between NAV CANADA and Environment Canada (Poster)

Stand-by paper:
LEONARD, K.; FELLNER, W.; PACE, D.
Activities of the Federal Aviation Administration's Aviation Weather Research program*

16:55 END OF SESSION

ST17 Aviation and space flight (co-sponsored by OA)
.2 Air traffic meteorology and weather impact on aviation - Poster Session

Convener: Hauf, T.
Co-Convener(s): André, J.-C.; Carriere, J.-M.; Corjon, A.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:30 - 19:00
Poster Area: AGORA 3 - ST

ST077 **TAFFERNER, A.**; HAUF, T.; HAFNER, T.
Diagnosis of icing and nowcasting for aviation

ST078 IMPERATO, I.; LEONE, G.
In-flight icing cloud measurements by an airborne droplet analyser

ST079 EVANS, J.
Reducing the impact of adverse terminal weather on major US airports with the Integrated Terminal Weather System (ITWS)

ST080 GIMENO, L.; **RUA, A.**; VIDAL, O.; FERNANDEZ, D.
Weather impact on the air traffic in the three airports of Galicia (Spain)

ST081 **UTNES, T.**; EIDSVIK, K.J.
Computation of wind effects in the wake of buildings close to a runway

ST082 **PATTON, R.**; LUNNON, R.W.
Investigation into lightning strikes to helicopters operating over the North Sea

ST083 TURNER, J.
An automated scheme for predicting mountain wave induced turbulence for civil aviation

ST084 VERRET, R.; TURCOTTE, M.-F.; SOUVANLASY, V.; BALTAZAR, M.
An interactive Aviation Weather Database (AWeD)

ST085 WIENS, B.
Investigation of a graphical area forecast in Canada

ST086 ENGFER, D.
AMETIS1 system for windshear and inversion warnings at the Zürich airport

ST087 SANCHEZ, J.L.; VEGA, A.; AJO, J.; SERRANO, O.
Procedure for scientific flights in Cb

ST089 **MONNIER, B.**; BARBARESCO, F.
Inquiry into the ground ATC/ATM requirements for meteorological data

ST090 **SPITZER, E.**; REES, F.; VONWINKLE, W.; WILLIAMS, R.
An overview of porject SOCRATES

ST090A NADEAU, M.
A success story between NAV CANADA and Environment Canada

1999 General Assembly Den Haag, 19 - 23 April

Attend the open EGS Section/IWG Meetings on Wednesday, 22 April, 12.00-14.00, and make your suggestions, to the scientific programme. Further information on the EGS Web Site http://www.copernicus.org/EGS/EGS.html.

Planetary and Solar System Sciences

PS1 Planetary interiors I

Convener: Lognonné, P.
Co-Convener(s): Gudkova, T.V.
Wednesday, 22 April 1998
Lecture Room: M4
Chairperson: N.N.

Mars new results and future missions

14:00 ACUNA, M.H.; CONNERNEY, J.E.P.; WASILEWSKI, P.; REME, H.; MAZELLE, C.; SAUVAUD, J.; D'USTON, C.; LIN, R.; ANDERSON, K.; CARLSON, C.; MCFADDEN, J.; CURTIS, D.; MITCHELL, D.; CLOUTIER, P.; MAYHEW, M.; NESS, N.F.; BAUER, S.J.
The magnetic field of Mars: initial results from the Mars global surveyor magnetic fields investigation (Solicited Paper)

14:30 YODER, C.F.; FOLKNER, W.M.; YUAN, D.N.; STANDISH, E.M.; STANDISH, R.A.
Mars moment of inertia from Pathfinder and Viking radio tracking data (Solicited Paper)

15:00 **LEWELING, M.**; SPOHN, T.
Models of a Martian remanent magnetic field

15:15 **FORNI, O.**; BREUER, D.; SPOHN, T.
Mars' thermal evolution with phase transitions

15:30 **BREUER, D.**; SPOHN, T.; YUEN, D.
Evolution of the magnetic field of Mars

15:45 MOCQUET, A.
How many seismological stations are needed to ensure body wave detections on Mars?

16:00 **ZHARKOV, V.N.**; BABEIKO, A.YU.
Mineral composition and seismic model of the Martian crust

16:15 END OF PART I

PS1 Planetary interiors - Poster Session

Convener: Lognonné, P.
Co-Convener(s): Gudkova, T.V.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: AGORA 3 - PS

PS001 KOCHEMASOV, G.
Tectonic dichotomy of all cosmic bodies

PS002 DE MORAIS, A.
A possible internal structure of Europa

Attend the Business Meeting of your Section

on Wednesday, 22 April, 12.00-14.00 in Lecture Room M4

PS1 Planetary interiors II

Convener: Lognonné, P.
Co-Convener(s): Gudkova, T.V.
Thursday, 23 April 1998
Lecture Room: M4
Chairperson: N.N.

Other terrestrial bodies

09:00 **CHAMBAT, F.**; VALETTE, B.
Lunar structure and Clementine data: test of a tectonic inversion scheme (Solicited Paper)

09:30 **CONZELMANN, V.**; SPOHN, T.
Consequences of different viscosity laws on models of planetary mantle convection

09:45 VAN DEN BERG, A.; **YUEN, D.A.**
The role played by pressure-dependent rheology in controlling planetary cooling

Galileo results

10:00 **KIVELSON, M.G.**; KHURANA, K.K.
Magnetic signatures of the Galilean moons of Jupiter and their implications for interior structure (Solicited Paper)

10:30 BREAK

Chairperson: N.N.

11:00 **KHURANA, K.K.**; KIVELSON, M.G.
Does Io possess an internal magnetic field? (Solicited Paper)

11:30 **SPOHN, T.**; STEINBACH, V.
Io: a model to account for the discrepancy between heat flow and tidal dissipation rate

11:45 **GUILLOT, T.**; GAUTIER, D.; HUBBARD, W.B.
New constrains on the composition of Jupiter from Galileo measurements and interior models

12:00 **GUDKOVA, T.V.**; ZHARKOV, V.N.
Theoretical spectrum of new Jovian models

12:15 Concluding Remarks

12:30 END OF SESSION

PS2 Evolution and state of surfaces, crusts and lithospheres of planetary bodies I

Convener: Janle, P.
Co-Convener(s): Basilevsky, A.T.
Monday, 20 April 1998
Lecture Room: M1
Chairperson: N.N.

11:00 IVANOV, B.A.
Complex impact crater formation: large terrestrial craters

11:15 **BRUNS, P.**; DULLO, W.-C.
Geochemistry of marine sediments and their significance for studies of cosmic fluxes and effects of extraterrestrial impacts

11:30 **WARELL, J.**; LAGERKVIST, C.-I.; LIMAYE, S.S.; SCHARMER, G.; GUNNARSSON, M.; LAGERROS, J.S.V.; MUINONEN, K.
High-resolution groundbased imaging of Mercury at visual and near-infrared wavelengths

11:45 ORI, G.G.; BALIVA, A.; MARINANGELI, L.; SALVIO, L.
Sedimentary environment and climatic changes on Mars
12:00 GALIMOV, E.M.
On problem of enrichment in ^{13}C of the Martian carbon
12:15 JÖNS, H.-P.
No escers in the vicinity of the south pole cap on Mars, but solidified fossil "tsunamis"
12:30 **MANGOLD, N.**; ALLEMAND, P.; THOMAS, P.
Datation of compressive deformation on Mars: evidence for global contraction
12:45 LUNCH

Chairpersons: Ori, G.G.; Greeley, R.

14:00 **ZUBER, M.T.**; SMITH, D.E.
Implications for the lithosphere of Mars as a result of accurate topographic data from the MGS laser altimeter
14:15 CHICARRO, A.F.
Objectives of the Mars express mission
14:30 **TURCOTTE, D.L.**; ROBERTS, D.; MALAMUD, B.D.
The catastrophic evolution of Venus and the cratering record
14:45 MARINANGELI, L.; ORI, G.G.
Some clues on the origin of Audra Planitia basin, Venus
15:00 ROSENBLATT, P.; BARRIOT, J.P.; PINET, P.C.; VALES, N.
Combined regional analysis of gravity data and surface geology at Venusian hot sport periphery
15:15 **FRANCK, S.**; BOUNAMA, CH.
Comparative degassing history of Earth and Venus
15:30 MCCORD, T.B.; HANSEN, G.B.; FANALE, F.P.; GRANAHAN, J.C.; MARTIN, P.D.; HIBBITTS, C.A.; CARLSON, R.W.; SMYTHE, W.D.; MATSON, D.L.; JOHNSON, T.V.; NIMS TEAM
Nature of ice and non-ice constituents of the surfaces of the icy Galilean satellites (Solicited Paper)
16:00 **NEUKUM, G.**; WAGNER, R.; WOLF, U.; HEAD III, J.W.; PAPPALARDO, R.; BELTON, M.J.S.; GALILEO SSI TEAM
Bombardment history and ages of the Galilean satellites (Solicited Paper)
16:30 **SCHUSTER, P.**; OBERST, J.; ZEITLER, W.; NEUKUM, G.; THOMAS, P.; MCEWEN, A.; GALILEO IMAGING TEAM
Shape and topography of Io - results from the Galileo mission
16:45 END OF PART I
17:00 Opening
19:30 Reception

Planetary and Space Science

an official journal of the EGS for the publication of your results presented at the 23rd General Assembly

PS2 Evolution and state of surfaces, crusts and lithospheres of planetary bodies II

Convener: Janle, P.
Co-Convener(s): Basilevsky, A.T.
Tuesday, 21 April 1998
Lecture Room: M1
Chairperson: Rosenblatt, P.

08:30 GREELEY, R.; KLEMASZEWSKI, J.; KADEL, S.; SULLIVAN, R.; PAPPARDO, R.; HEAD III, J.; NEUKUM, G.; DENK, T.; GALILEO IMAGING SCIENCE TEAM
Europa in the prime Galileo mission (Solicited Paper)
09:00 GREELEY, R.; FAGENTS, S.; SCHWARZ, W.; KLEMASZEWSKI, J.; SULLIVAN, R.; HEAD, J.; PAPPALARDO, R.; GALILEO SSI TEAM
Cryovolcanism on Europa: Galileo results in the nominal mission
09:15 PAPPALARDO, R.T.; HEAD, J.W.; GREELEY, R.; SULLIVAN, R.J.; PILCHER, C.; SCHUBERT, G.; MOORE, W.; CARR, M.H.; MOORE, J.M.; BELTON, M.J.S.; GALILEO SSI TEAM
Diapirism and solid-state convection on Europa
09:30 **GRANAHAN, J.C.**; FANALE, F.P.; CARLSON, R.; KAMP, L.; MATSON, D.; OCAMPO, A.; SMYTHE, W.; GREELEY, R.; SULLIVAN, R.; GEISSLER, P.; MOORE, J.; BELTON, M.; GALILEO NIMS AND SSI INSTRUMENT TEAMS
Galileo's visible-infrared observations of the tyre region of Europa
09:45 HEAD, J.W.; PAPPALARDO, R.; PROCKTER, L.; COLLINS, G.; NEUKUM, G.; BELTON, M.J.S.; GALILEO IMAGING TEAM
Synthesis of Galileo imaging results for Ganymede
10:00 HEAD, J.W.; PAPPALARDO, R.; KAY, J.; COLLINS, G.; PROCKTER, L.; GALILEO IMAGING TEAM
Galileo evidence for Ganymede cryovolcanism
10:15 KLEMASZEWSKI, J.; WAGNER, R.; GREELEY, R.; NEUKUM, G.; CHAPMAN, C.; MERLINE, W.J.; GALILEO SSI TEAM
Callisto multi-ring structures and impactor populations from Galileo data
10:30 END OF SESSION

PS2 Evolution and state of surfaces, crusts and lithospheres of planetary bodies - Poster Session

Convener: Janle, P.
Co-Convener(s): Basilevsky, A.T.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 3 - PS
Chairpersons: Basilevsky, A.T.; Janle, P.

PS003 **OROFINO, V.**; BLANCO, A.; BLECKA, M.I.; FONTI, S.; JUREWICZ, A.
Search for carbonates on the surface of Mars by means of the planetary Fourier spectrometer
PS004 ERARD, S.
A spectrophotometric model for Mars

PS005 **MOSANGINI, C.**; KOMATSU, G.
Geomorphology of Kasei Valles and scale of flooding episodes

PS006 MEYERER, TH.
Detectability of sulfates in Martian soils considering duri crust properties

PS007 **MANGOLD, N.**; ALLEMAND, P.; THOMAS, P.; DUVAL, P.
Rheology of Martian frozen ground: implications for global water storage

PS008 **HELLER, D.-A.**; JANLE, P.
Lineament analysis and the estimation of the thickness of the lithosphere in the Alba Patera region, Mars

PS009 **HARLOFF, J.**; ARNOLD, G.
Preparation of massive artificial basalt samples as spectroscopic analog materials for planetary surfaces

PS010 KRONBERG, P.
Faults and fault patterns of continental rifts or rift-like structures on Venus, Mars and Earth-A comparative study

PS011 **IVANOV, A.B.**; MUHLEMAN, D.O.
Terrains near north pole of Mars from Mars Orbiter Laser Altimeter observations. Edge of the ice cap

PS012 QUINN, R.; ZENT, A.P.
Heterogeneous catalysis of hydrogen peroxide vapor by martian soil analogs: implication for regolith penetration depths of photochemically produced oxidants on Mars *

PS013 BOSTROM, R.C.
Tectonics of Earth & Venus: existence of waves M_2, S_2

PS014 ANSAN, V.; PAILLOU, PH.
Determination of surface roughness of lava flows on Venus from Magellan radar images

PS015 **DUPEYRAT, L.**; ANSAN, V.; INSERGUEIX, D.
Chemical destabilisation of a thickened Venusian lithosphere, up to melting conditions. Application to Maxwell montes

PS016 **SCHREINER, B.**; WAGNER, R.; NEUKUM, G.; GALILEO SSI TEAM
Orientation and chronological sequence of lineaments on Europa's wedged terrain

PS017 **WAGNER, R.**; WOLF, U.; NEUKUM, G.; KLEMASZEWSKI, J.; GREELEY, R.; GALILEO SSI TEAM
Morphology, geology, distribution and ages of dome crasters on Ganymede and Callisto

PS018 PROCKTER, L.M.; HEAD III, J.W.; PAPPALARDO, R.T.; SENSKE, D.; NEUKUM, G.; GREELEY, R.; GALILEO SSI TEAM
Ganymede dark terrain morphology and tectonics: results from the first year of Galileo

PS019 JÖNS, H.-P.
On the origin of the etched terrain, Mars

* not included in the Book of Abstracts

PS3 Atmospheres of terrestrial planets, outer planets and moons I

Convener: Hourdin, F.
Co-Convener(s): Lewis, S.R.
Tuesday, 21 April 1998
Lecture Room: M1
Chairperson: Hourdin, F.

Inner planets

11:00 **KRASNOPOLSKY, V.A.**; MUMMA, M.J.; GLADSTONE, G.R.
Detection of atomic deuterium on Mars (Solicited Paper)

11:30 MOREAU, D.; MARTEN, A.; BIRAUD, Y.; MORENO, R.
Numerical study of spatial and seasonal distributions of trace gases in the Martian middle and lower atmosphere

11:45 SCHIDLOWSKI, M.
Oxygenation of the terrestrial atmosphere: the role of biology

12:00 ESTEVEZ, C.
A model for chloroacetaldehyde syntehsis from atmospheric precursors in the primitive Earth

12:15 SOROKHTIN, O.G.; USHAKOV, S.A.; USHAKOVA, L.A.
Nature of greenhouse effect in the Earth atmosphere

12:30 **SHIZGAL, B.D.**; ARKOS, G.G.
The dynamics and kinetic theory of the nonthermal escape of H and D from Mars and Venus by energetic oxygen atoms

12:45 **STUMPTNER, W.**; LAMMER, H.; BAUER, S.J.
Intrinsic Martian magnetic field effect on Mars' atmospheric evolution

13:00 LUNCH

Chairperson: Read, P.

Martian meteorology and climate

14:00 **IVANOV, A.B.**; MUHLEMANN, D.O.
Opacity of the Martian atmosphere from Mars orbiter laser altimeter observations (Solicited Paper)

14:30 **FORGET, F.**; HOURDIN, F.; HOURDIN, C.; TALAGRAND, O.
GCM simulations of the dust cycle on Mars

14:45 **NEWMAN, C.E.**; LEWIS, S.E.; READ, P.L.
A preliminary study of dust advection on Mars using winds from the Oxford Mars General Circulation Model

15:00 WHITEHOUSE, S.G.; MOROZ, I.M.; READ, P.L.
An extremum principle for linearised vertical structure equations

15:15 **PETROSYAN, A.**; HARRI, A.-M.
The mixing height of the Martian boundary layer, model predictions

15:30 LEWIS, S.R.
Validation of a Martian general circulation model against recent observations from Mars Pathfinder and Mars Global Surveyor

Chairperson: Lewis, S.

Titan

15:45 **LORENZ, R.D.**; LEMMON, M.T.; SMITH, P.H.
Dramatic seasonal change on Titan observed by HST WFPC-2 (Solicited Paper)
16:15 **LEMMON, M.T.**; SMITH, P.H.; LORENZ, R.D.
Space telescope imaging spectrograph observations of the troposphere and surface of Titan
16:30 SMITH, P.H.; LEMMON, M.; LORENZ, R.; WEST, R.
NICMOS observations of Titan
16:45 **COUSTENIS, A.**; SCHMITT, B.; MCKAY, C.P.; LELLOUCH, E.; COMBES, M.; GENDRON, E.; WITTEMBERG, R.; MAILLARD, J.P.
Ground-based observations of Titan's surface
17:00 END OF PART I

PS3 Atmospheres of terrestrial planets, outer planets and moons II

Convener: Hourdin, F.
Co-Convener(s): Lewis, S.R.
Wednesday, 22 April 1998
Lecture Room: M1
Chairperson: Lewis, S.

Titan (continued)

08:30 DE BERGH, C.; **COURTIN, R.**; GAUTIER, D.; OWEN, T.; TOKUNAGA, A.; LELLOUCH, E.; MARTEN, A.
The abundance of CO in the lower troposphere of Titan from 1.6 micron spectroscopy
08:45 HIDAYAT, T.; MARTEN, A.
Evidence for a stron $^{15}N/^{14}N$ enrichment in Titan's atmosphere from millimeter observations
09:00 **HOURDIN, F.**;J LUZ, D.
Dynamics of Titan's atmosphere: implication of transient activity for the superrotation and transport of trace species
09:15 **RANNOU, P.**; HOURDIN, F.; MCKAY, C.P.; CABANE, M.
Effects of haze and dynamics coupling in Titan's atmosphere
09:30 **LEBONNOIS, S.**; TOUBLANC, D.
Modelling the seasonal variations in Titan's atmospheric composition
09:45 CROKE, B.; VARDAVAS, I.M.
A radiative-convective/photochemical model for Titan's atmosphere
10:00 GRARD, R.
Electrostatic charging processes in planetary atmospheres

Chairperson: Courtin, R.

Jupiter

10:15 **IRWIN, P.G.J.**; TAYLOR, F.W.; CALCUTT, S.B.; WEIR, A.L.; SMITH, S.E.; LAMBERT, A.; CAMERON-SMITH, P.J.
Galileo/NIMS determination of the deep composition and cloud structure of Jupiter (Solicited Paper)
10:45 **ROOS-SEROTE, M.**; DROSSART, P.; ENCRENAZ, TH.; CARLSON, R.W.; BAINES, K.; ORTON, G.
Cloud opacity and water abundance variations in Jovian hot spots from Galileo/NIMS observations
11:00 **GUILLOT, T.**; TOMPKINS, A.M.; CRAIG, G.C.
A terrestrial cloud ensemble model to study the atmospheres of the giant planets
11:15 SKEET, D.R.; **REED, P.L.**
A fully stratified, primitive euqation model of Jupiter's atmosphere
11:30 **LESUEUR, V.**; MANGENEY, A.; DROSSART, P.
Numerial model of the atmospheric circulation of the outer planets
11:45 **KRASNOPOLSKY, V.A.**; CRUIKSHANK, D.P.
A plausible version of Pluto's atmosphere
12:00 END OF SESSION
12:00 Business Meetings

PS3 Atmospheres of terrestrial planets, outer planets and moons - Poster Session

Convener: Hourdin, F.
Co-Convener(s): Lewis, S.R.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: AGORA 3 - PS

PS035 **STUMPTNER, W.**; LAMMER, H.; BAUER, S.J.
Intrinsic Martian magnetic field effect on Mars' atmospheric evolution
PS036 ANDREICHIKOV, B.M.
Role of small components of atmosphere in shaping a surface and of a troposphere of Venus
PS037 **SIILI, T.**; SAVIJÄRVI, H.; HARRI, A.-M.
Modelling of local and regional weather phenomena in the Sagan memorail Station (Mars Pathfinder) lading area during its operation
PS038 **HARRI, A.-M.**; POLKKO, J.; SIILI, T.; CRISP, D.
Pressure observations in the Martian southern polar region: MVACS/MET-P
PS039 **LEWIS, S.R.**; COLLINS, M.; READ, P.L.; FORGET, F.; FOURNIER, R.; HOURDIN, C.; HOURDIN, F.; TALAGRAND, O.; HUOT, J.-P.
A climate database for the Martian atmosphere
PS040 **LAMMER, H.**; STUMPTNER, W.; BAUER, S.J.
High-altitude haze effects on Titan's atmosphere
PS041 ARREGUI, J.; ROJAS, J.F.; HUESO, R.; LECACHEUX, J.; COLAS, F.; SANCHEZ-LAVEGA, A.; DROSSART, P.
Earth based observations of Jovian hot spots in the visual range: 1994-1997

Attend the Poster Session

PS

PS4 Planetary magnetospheres and ionospheres I

Convener: Prangé, R.
Co-Convener(s): Dougherty, M.K.; Sauer, K.
Wednesday, 22 April 1998
Lecture Room: M1
Chairperson: Nagy, A.

Plasma/dust interactions

14:00 **KRÜGER, H.**; GRÜN, E.; GALILEO AND ULYSSES DUST TEAMS
Galileo observations of dust particles ejected from Jupiters Galilean satellites
14:15 **HECK, A.**; GRÜN, E.; KRÜGER, H.; LINKERT, G.; HORANYI, M.; HAMILTON, D.P.; POLANSKEY, C.
Results of Jovian dust stream analysis
14:30 GRÜN, E.; KRÜGER, H.; HECK, A.; LINKERT, G.; HAMILTON, D.; HORANYI, M.; ZOOK,H.A.
Angular momentum of Jovian dust stream particles
14:45 POPEL, S.I.
Influence on the Earth's magnetosphere of a dust related to cosmic bodies

Chairperson: Banaszkiewicz, M.

Mars and Venus

15:00 **REME, H.**; MAZELLE, C.; SAUVAUD, J.A.; D'USTON, C.; VIGNES, D.; LIN, R.P.; ANDERSON, K.A.; CARLSON, C.W.; MCFADDEN, J.; CURTIS, D.W.; MITCHELL, D.; ACUNA, M.H.; CONNERNEY, J.E.P.; WASILEWSKI, P.; CLOUTIER, P.; MAYHEW, M.; NESS, N.F.; BAUER, S.J.
The solar wind-Mars interaction from the Mars global surveyor spacecraft measurements (Solicited Paper)
15:30 **MAZELLE, C.**; REME, H.; SAUVAUD, J.A.; D'USTON, C.; VIGNES, D.; ACUNA, M.H.; CONNERNEY, J.E.P.; WASILEWSKI, P.; LIN, R.P.; MITHCELL, D.L.; ANDERSON, K.A.; CARLSON, C.W.; MCFADDEN, J.; CURTIS, D.W.; CLOUTIER, P.; MAYHEW, M.; NESS, N.F.; BAUER, S.J.
Kinetic charateristics of the solar wind interaction with Mars
15:45 **SKALSKY, A.**; KRASNOSEL'SKIKH, V.; GRARD, R.; SCHWINGENSCHUH, K.
Low frequency turbulence at the Martian bow shock: PHOBOS-2 observations
16:00 BAUSKE, R.; **NAGY, A.F.**; DEZEEUW, D.L.; GOMBOSI, T.I.; POWELL, K.G.; LUHMAN, J.G.
3D multiscale mass loaded MHD simulations of the solar wind interaction with Venus and Mars
16:15 **SAUER, K.**; DUBININ, E.
Mars and its moons in the solar wind
16:30 **DUBININ, E.**; SAUER, K.; SKALSKY, A.; SZEGO, K.; DELVA, M.
The foreshock boundary at Mars (Poster)
16:35 **DUBININ, E.**; SAUER, K.; BAUMGARTEL, A.; SRIVASTAVA, K.; TARASOV, V.
Multiple shocks near Mars (Poster)
16:40 LICHTENEGGER, H.; **DUBININ, E.**
Planetary ions in the Martian tail (Poster)
16:45 END PART I

PS4 Planetary magnetospheres and ionospheres II

Convener: Prangé, R.
Co-Convener(s): Dougherty, M.K.; Sauer, K.
Thursday, 23 April 1998
Lecture Room: M1
Chairperson: Thomas, N.

Ionospheres and magnetospheres of Galilean satellites

09:00 **KIVELSON, M.G.**; KHURANA, K.K.
Galilean moons of Jupiter: magnetospheres and wakes (Solicited Paper)
09:30 **BANASZKIEWICZ, M.**; LARA, L.; RODRIGO, R.; LOPEZ-MORENO, J.J.; MOLINA-CUBEROS, G.
A coupled model of the ionosphere and the upper atmosphere of Titan
09:45 **LILENSTEN, J.**; GALAND, M.; TOUBLANC, D.; MAURICE, S.
The ionosphere of Titan: ideal diurnal and nocturnal cases
10:00 **KLIORE, A.J.**; HERRERA, R.G.; ASMAR, S.W.; HINSON, D.P.; TWICKEN, J.D.; FLASAR, F.M.; SCHINDER, P.D.
The ionospheres of the Galilean satellites of Jupiter
10:15 **KOPP, A.**; IP, W.-H.; SCHRÖER, A.
Comparative MHD simulations of the interaction of the Galilean satellites with the Jovian magnetosphere (Poster)
10:20 BREAK

Chairperson: Kivelson, M.

Planetary magnetospheres: models

10:50 **FERRIERE, K.**; ZIMMER, C.; NEUBAUER, F.
Centrigufal instability in rotating plasma disks
11:05 **GOMBOSI, T.I.**; DEZEEUW, D.L.; GROTH, C.P.T.; HANSEN, K.C.; MARSHALL, H.G.; POWELL, K.G.; STOUT, Q.F.
Modelling the magnetospheres of Jupiter and Saturn with a 3D AMR MHD model
11:20 WOODWARD, T.I.; MCKENZIE, J.F.
Waves in magnetized plasmas: two fluid wave equation formulation
11:35 WOODWARD, T.I.; MCKENZIE, J.F.
Stationary incompressible MHD perturbations generated by a current source in a moving plasma
11:50 **SCOTT, J.G.**; ENGLE, I.M.
A detailed mapping of the magnetopause surface of a global model of Mercury's magnetosphere
12:05 LUNCH

Chairperson: Gombosi, T.

The Jovian magnetosphere: observations

14:00 **KHURANA, K.K.**; KIVELSON, M.G.
The structure of Jupiter's magnetosphere: new observations from Galileo (Solicited Paper)

14:30 DEDMAN, E.R.; **DOUGHERTY, M.K.**
Magnetic holes and upside-down waves in connection with Jovian mirror mode waves

14:45 **KRUPP, N.**; WOCH, J.; LAGG, A.; LIVI, S.; WILKEN, B.; WILLIAMS, D.J.
Energetic particles in the Jovian magnetosphere: results from the Energetic Particles Detector (EPD) on board Galileo

15:00 **WOCH, J.**; KRUPP, N.; LAGG, A.; WILKEN, B.; LIVI, S.; WILLIAMS, D.J.
Dynamics of the Jovian magnetotail

15:15 **LOUARN, P.**; ROUX, A.; PERRAUT, S.; KURTH, W.; GURNETT, D.
A study of the large scale dynamics of the Jovian magnetosphere using the Galileo plasma wave experiment

Chairperson: Khurana, K.

15:30 **PRANGE, R.**; LIVENGOOD, T.A.; CHAGNON, G.; KIVELSON, M.; KURTH, W.; ZARKA, P.; MAURICE, S.; FOUCHET, T.; BUDZIEN, S.
A study fo the dynamics of auroral processes on Jupiter. Correlation with Galileo measurements

15:45 MAI, H.; **JOCKERS, K.**
Observation sof $H_2\lambda$=2.121μ and $H_3^+\lambda$=2.093μ emission in Jupiter's north polar cap shortly after the impact of comet SL9

16:00 REGO, D.; ACHILLEOS, N.; STALLARD, T.; MILLER, S.; PRANGE, R.; DOUGHERTY, M.; JOSEPH, R.
Supersonic winds in the Jovian aurorae *

16:15 **PALLIER, L.**; PRANGE, R.
Far UV Jupiter's auroras images in high spatial resolutionwith finat object camera on post costar Hubble space telescope (Poster)

16:20 QUEINNEC, J.; ZARKA, P.
Io-controlled decameter arcs and Io-Jupiter interaction

16:35 THOMAS, N.; LICHTENBERG, G.
Ion temperatures in the Io plasma torus

16:50 **DULK, G.A.**; LEBLANC, Y.; SAULT, R.J.; BOLTON, S.J.
The asymmetric brightness of Jupiter's radiation belts, and variations with D_E

17:05 END OF SESSION

PS4 Planetary magnetospheres and ionospheres - Poster Session

Convener: Prangé, R.
Co-Convener(s): Dougherty, M.K.; Sauer, K.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 3 - PS
Chairperson: N.N.

PS042 **KOPP, A.**; IP, W.-H.; SCHRÖER, A.
Comparative MHD simulations of the interaction of the Galilean satellites with the Jovian magnetosphere

PS043 **PALLIER, L.**; PRANGE, R.
Far UV Jupiter's auroras images in high spatial resolutionwith finat object camera on post costar Hubble space telescope

PS044 **DUBININ, E.**; SAUER, K.; SKALSKY, A.; SZEGO, K.; DELVA, M.
The foreshock boundary at Mars

PS045 **DUBININ, E.**; SAUER, K.; BAUMGARTEL, A.; SRIVASTAVA, K.; TARASOV, V.
Multiple shocks near Mars

PS046 LICHTENEGGER, H.; **DUBININ, E.**
Planetary ions in the Martian tail

PS5 Small bodies of the solar system I

Convener: Schwehm, G.H.
Co-Convener(s): Ulamec, S.
Thursday, 23 April 1998
Lecture Room: M4
Chairperson: N.N.

14:00 DUXBURY, T.C.
The NASA Discovery STARDUST Project (Solicited Paper)

14:30 SCHWEHM, G.H.
The international Rosetta mission (Solicited Paper)

15:00 **ULAMEC, S.**; WITTMANN, K.; FEUERBACHER, B.; ROSENBAUER, H.; MUGNUOLO, R.; MOURA, D.; BIBRING, J.P.
Rosetta lander - in situ investigation of a cometary nuceleus (Solicited Paper)

15:30 PALUMBO, P.; GIADA TEAM
The GIADA experiment onboard Rosetta mission to comet 46P/Wirtanen: performances and capabilities

15:45 **MOTTOLA, S.**; MICHAELIS, H.; NEUKUM, G.; ARNOLD, G.; HIRSCH, H.; JAUMANN, R.
The ROLIS imaging experiment on the Rosetta lander

16:00 **KNOLLENBERG, J.**; KÜHRT, E.; SPOHN, T.
MUPUS-TM: IR-measurement of comet P/WIRTANEN's surface temperature

16:15 BENKHOFF, J.
Influence of the energy input on the vapor flux and on the temperature distribution of comet nucleis

16:30 END OF PART I

PS5 Small bodies of the solar system - Poster Session

Convener: Schwehm, G.H.
Co-Convener(s): Ulamec, S.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 3 - PS
Chairperson: N.N.

PS047 **HADAMCIK, E.**; LEVASSEUR-REGOURD, A.C.; RENARD, J.C.; STEPNIK, B.
CCD polarimetric imaging of two short period comets: 81P/Wild 2 and 22P/Kopff

PS048 OBERC, P.
Modelling the number density profiles of secondary

PS049 **HAGERMANN, A.**; SPOHN, T.
Evaluation of MUPUS data and the inverse heat conduction problem

PS050 **JUHASZ, A.**; SZEGÖ, K.
Charged dust dynamics above the surface of a comet far from the Sun

PS5 Small bodies of the solar system II

Convener: Schwehm, G.H.
Co-Convener(s): Ulamec, S.
Friday, 24 April 1998
Lecture Room: M4
Chairperson: N.N.

09:00 **BARBIN, Y.**; KOFMAN, W.; NIELSEN, E.; HAGFORS, T.; SEU, R.; PICARDI, G.
Consert experiment for the Rosetta mission
09:15 **SCHÖNEMANN, A.**; ALTWEGG, K.; BALSIGER, H.; GEISS, J.
Upper limits for the hydrocarbons in the inner coma of comet P/Halley
09:30 **COSTA, J.**; MÄKINEN, T.; BERTAUX, J.L.; QUEMERAIS, E.; KYRÖLÄ, E.; SCHMIDT, W.; LALLEMENT, R.
Monitoring of H_2O production of several comets from LY-alpha measurements with SOHO/SWAN
09:45 **ROSENBAUER, H.**; HILCHENBACH, M.
Evolution of the topography of revolving comets analysed by numeicla modelling
10:00 **PÄTZOLD, M.**; MAROUF, E.A.
Bistatic radar observations of cometary nuclei
10:15 BREAK

Chairperson: N.N.

11:00 **DESVOIVRES, E.**; KLINGER, J.; LEVASSEUR-REGOURD, A.-C.
Dynamics of fragmetns of cometary nuclei: application to C/1996 B2 Hyakutake
11:15 **MUINONEN, K.**; LAGERROS, J.S.V.
Inversion of shape statistics for small solar system bodies
11:30 **JOCKERS, K.**; ROSENBUSH, V.; BONEV, T.; CREDNER, T.
Imaging polarimetry and colour in comet C/1996 Q1 (Tabur) at large phase angle
11:45 **BONEV, T.**; JOCKERS, K.; CREDNER, T.
Ions in comets C/1996 Q1 (Tabur) and 46P/Wirtanen
12:00 **LANDGRAF, M.**; GRÜN, E.
In situ interstellar dust flux measurements and their extrapolation to the interstellar medium
12:15 **BRUCATO, J.R.**; COLANGELI, L.; MENNELLA, V.; BARATTA, G.A.; CIMINO, G.; PALUMBO, P.; STRAZZULLA, G.; BUSSOLETTI, E.
Cometary dust characterization by laboratory experiments on silicates grains
12:30 KRASNOPOLSKY, V.A.
X-rays in comets: theory and observations
12:45 MIKHAILOV, YU.M.; MASLENITSIN, S.F.
Regions and boundaries of cometary plasma environments
13:00 END OF SESSION

Attend the Business Meeting of your Section

on Wednesday, 22 April, 12.00-14.00, Lecture Room M4

PS6 Solar system radiophysics and related topics I

Convener: Barrow, C.H.
Co-Convener(s): Aubier, M.G.
Monday, 20 April 1998
Lecture Room: M4
Chairperson: Barrow, C.H.

Solar

14:00 BOUGERET, J.-L.
Radio sources associated with interplanetary CMEs (Solicited Paper)
14:30 MANN, G.
Radio emission from shocks in the heliosphere (Solicited Paper)
15:00 **BOUGERET, J.-L.**; HOAN, S.; ZARKA, P.; LEBLANC,Y.; DULK, G.; KERDRAON, A.
WIND/WAVES, Nancay decametric array and Nancay radio heliography observations of an interplanetary radio storm
15:15 **LEBLANC, Y.**; DULK, G.A.; BOUGERET, J.-L.
Tracing the electron density from the corona to 1 AU
15:30 **KELLOGG, P.J.**; LIN, N.; BASE, S.D.
Some wind and Ulysses observations relating to the origin of type III bursts (Solicited Paper)
16:00 **HOANG, S.**; DULK, G.A.; BOUGERET, J.-L.; LEBLANC, Y.
Ulysses-Wind simultaneous observations of solar type III kilometric radio bursts associated with Langmuir waves
16:15 END OF PART I
17:00 Opening
19:30 Reception

PS6 Solar system radiophysics and related topics II

Convener: Barrow, C.H.
Co-Convener(s): Aubier, M.G.
Tuesday, 21 April 1998
Lecture Room: M4
Chairperson: Rucker, H.

Jupiter

08:45 **LOUARN, P.**; ROUX, A.; PERRAUT, S.; KURTH, W.; GURNETT, D.
A global survey of the Jovian magnetosphere activity, possible relationship with the Io activity (Solicited Paper)
09:15 ZARKA, P.; QUEINNEC, J.
Io-controlled decameter arcs an Io-Jupiter interaction
09:30 **BARROW, C.H.**; KAISER, M.L.
The jovian HOM radio emission observed by WIND/WAVES and by ULYSSES/URAP
09:45 **KAISER, M.L.**; MACDOWALL, R.J.
Jovian radio "bullseyes" observed by Ulysses URAP
10:00 **MONCUQUET, M.**; BAGENAL, F.; MEYER-VERNET, N.
A new 2-D model of the Io plasma torus

10:15 SHAPOSHNIKOV, V.E.; ZAITSEV, V.V.; RUCKER, H.O.
On the different ratio of linear to circular polarization in different sources of the Jovian decametric radio emission
10:30 BREAK

Chairperson: Aubier, M.

Jupiter S-bursts

11:00 KLEEWEIN, P.
Technical aspects in the observation of fast, time-varying radio emissions from sources in the solar system
11:15 **LECACHEUX, A.**; KLEEWEIN, P.; BOUDJADA, M.Y.; CLERC, V.; DUBUY, F.; DE LASSUS, H.; MOREAU, PH.; ROSOLEN, C.; RUCKER, H.O.
A ditigal spectrum analyzer for ground based decametre radio astronomy
11:30 **RUCKER, H.O.**; LECACHEUX, A.; BOUDJADA, M.Y.; GALAPEAU, P.; AUBIER, M.; MOREAU, P.; DUBUY, F.
Simultaneous high resolution observation of a sequence of Jupiter millisecond bursts at Nancay (France) and Graz (Austria)
11:45 **GALOPEAU, P.H.M.**; BOUDJADA, M.Y.; RUCKER, H.O.
Jovian S-burst drift model implying a parallel electric field
12:00 **BOUDJADA, M.Y.**; GALOPEAU, P.H.M.; RUCKER, H.O.; LECACHEUX, A.
Jovian millisecond radio bursts: phenomenology and morphology
12:15 BOEV, A.G.; SHCHERBININA, T.E.
To the formation mechanism of the decameter Jovian radioemission S-bursts with compound types of frequency drift
12:30 GARCZYNSKA, I.N.; ROMPOLT, B.; CADER-SROKA, B.; TOMCZAK, M.; RAOULT, A.
Study of two remote active regions connection on May 1993
12:45 END OF SESSION

PS7 Laboratory studies and observations on dust, ices and organics in the solar system I

Convener: Ehrenfreund, P.
Co-Convener(s): Kochan, H.
Wednesday, 22 April 1998
Lecture Room: M9
Chairperson: Pirronello, V.
Editors: Ehrenfreund, P.; Kochan, H.

Laboratory studies and observations on dust, iceas and organics ices inthe solar system and beyond

08:45 EHRENFREUND, P.; KOCHAN, H.
Introduction
09:00 **SCHMITT, B.**; DOUTE, S.; QUIRICO, E.
PS7-001 Ices in the solar system (Solicited Paper)
09:30 **SATORRE, M.A.**; BARATTA, G.A.;
PS7-002 CASTORINA, A.C.; PALUMBO, M.E.; STRAZZULLA, G.
CO/CO_2 molecular number ratio produced by ion irradiation of ices
09:45 **HALLENBECK, S.**; NUTH, J.
PS7-003 Thermal evolution of amorphous magnesium silicate smokes (Solicited Paper)
10:15 **OWEN, T.**; GRIFFITH, C.; COUSTENIS, A.;
PS7-004 ENCRENAZ, T.; GEBALLE, T.; HAN, B.
ISO and ground-based observation of Titan in near-IR windows at 2.7 and 5 micron (Solicited Paper)
10:45 EHRENFREUND, P.
PS7-005 Observations and laboratory studies of interstellar and cometary ices: an ISO view
11:00 BOCKELEE-MORVAN, D.; LIS, D.C.; WINK, J.;
PS7-006 DESPOIS, D.; BENFORD, D.; BIVER, N.; COLOM, P.; CROVISIER, J.; DAVIES, J.K.; DENT, W.R.F.; GARDNER, M.; GAUTIER,D.; GERARD, E.; GERMAIN, B.; LELLOUCH, E.; MEHRINGER, D.; MORENO, R.; PAUBERT, G.; PHILLIPS, T.G.; RAUER, H.
New molecular species in comet Hale-Bopp (Solicited Paper)

11:30 Poster Summaries

PS7-007 WORMS, J.C.; **HADAMCIK, E.**; LEVASSEUR-REGOURD, A.C.; RENARD, J.B.
Polarimetric measurements of scattered light by dust grains in microgravity conditions (PROGRA2 experiment)
PS7-008 **TANAKA, K.K.**; TANAKA, H.; NAKAZAWA, K.
Grain formation in ejecta of super nova: the effect due to the radiation
PS7-009 **SCHADE, U.**; WÄSCH, U.
NIR reflectance spectroscopy of Ca- and Fe-rich clinophyroxenes: relationship between spectral features and chemistry
PS7-010 **WÄSCH, R.**; SCHADE, U.
NIR reflectance spectroscopy of pyroxenes: ferroougites; sailtes; hedenbergites
PS7-011 LORENZ, R.D.
Dielectric properties of water-ammonia ice mixtures
PS7-012 ANDREICHIKOV, B.M.; DOLNIKOV, G.G.; DIKOV, YU.P.
Presentation of chemical comet model
PS7-013 IBADINOV, KH.I.
Ice grains in comets: laboratory and numerical modelling
PS7-014 IBADINOV, KH.I.
The general properties and formation cause of the dust bands in II type cometary tails
12:00 LUNCH
12:00 Business Meetings

Chairperson: Kochan, H.
Editors: Ehrenfreund, P.; Kochan, H.

14:00 GOUNELLE, M.; ENGRAND, C.; **MAURETTE,**
PS7-015 **M.**; KURAT, G.
Observations on dust, water and organics present in "giant" Antarctic micrometeorites (Solicited Paper)

PS

14:30 **MOROZ, L.**; ARNOLD, G.; WÄSCH, R.;
PS7-016 PIETERS, C.
Spectral estimations of asteroid mineral compositions: effects of spectrally neutral components
14:45 ELUSTONDO, F.; DALIBART, M.; **MASCETTI,**
PS7-017 **J.**; DEROUAULT, J.
Matrix isolation spectroscopy study of iron reactivity towards PAHs (Solicited Paper)
15:15 LLORCA, J.
PS7-018 Hydrocarbon synthesis in cometary grains
15:30 **COTTIN, H.**; GAZEAU, M.C.; RAULIN, F.
PS7-019 S.E.M.A.Ph.Or.E COMETAIRE, a tool for the study of the photochemical decompostion of probable cometary large organic molecules
15:45 **PIRRONELLO, V.**; BIHAM, O.; VIDALI, G.
PS7-020 Laboratory simulations of surface reactions occurring in space (Solicited Paper)
16:15 END OF PART I

PS7 Laboratory studies and observations on dust, ices and organics in the solar system - Poster Session

Convener: Ehrenfreund, P.
Co-Convener(s): Kochan, H.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: AGORA 3 - PS
Chairperson: Pirronello, V.
Editors: Ehrenfreund, P.; Kochan, H.

PS067 WORMS, J.C.; **HADAMCIK, E.**;
PS7-007 LEVASSEUR-REGOURD, A.C.; RENARD, J.B.
Polarimetric measurements of scattered light by dust grains in microgravity conditions (PROGRA2 experiment)
PS068 **TANAKA, K.K.**; TANAKA, H.; NAKAZAWA,
PS7-008 K.
Grain formation in ejecta of super nova: the effect due to the radiation
PS069 **SCHADE, U.**; WÄSCH, U.
PS7-009 NIR reflectance spectroscopy of Ca- and Fe-rich clinophyroxenes: relationship between spectral features and chemistry
PS070 **WÄSCH, R.**; SCHADE, U.
PS7-010 NIR reflectance spectroscopy of pyroxenes: ferroougites; sailtes; hedenbergites
PS071 LORENZ, R.D.
PS7-011 Dielectric properties of water-ammonia ice mixtures
PS072 ANDREICHIKOV, B.M.; DOLNIKOV, G.G.;
PS7-012 DIKOV, YU.P.
Presentation of chemical comet model
PS073 IBADINOV, KH.I.
PS7-013 Ice grains in comets: laboratory and numerical modelling
PS074 IBADINOV, KH.I.
PS7-014 The general properties and formation cause of the dust bands in II type cometary tails

PS7 Laboratory studies and observations on dust, ices and organics in the solar system II

Convener: Ehrenfreund, P.
Co-Convener(s): Kochan, H.
Thursday, 23 April 1998
Lecture Room: M9
Chairperson: Ehrenfreund, P.
Editors: Ehrenfreund, P.; Kochan H.

Laboratory studies, theory and technology related to planetary space missions

08:45 ARNOLD, G.
PS7-021 Laboratory spectrophotometry of analog materials for studies of solid planetary surfaces (Solicited Paper)
09:15 SVEDHEM, H.; DROLSHAGEN, G.; GRÜN, E.;
PS7-022 GRAFODATSKY, O.; PROKOPIEV, U.
Measurements of meteoroids and debris from geostationary orbit by the GORID experiment
09:30 **KOCHAN, H.**; RE, E.; NISTA, A.; BRIGHENTI,
PS7-023 A.; COSTE, P.; YLIKORPI, T.; GROMOV, V.V.; MATROSSOV, S.; MITSKEVITCH, A.V.; YUDKIN, E.N.
Development of small sampling systems for the investigation of planetary surfaces
09:45 SRAMA, R.; GRUEN, E.
PS7-024 The Cassini dust experiment
10:00 HAUDEBOURG, V.; **CABANE, M.**;
PS7-025 LEVASSEUR-REGOURD, A.-C.
Theoretical photopolarimetric responses of fractal aggregates and the CODAG/ESA experiment
10:15 **KOSCHNY, D.**; SCHWEHM, G.; ROTT, M.
PS7-026 Low-velocity impact studies for the Rosetta mission
10:30 BREAK

Chairperson: Ehrenfreund, P.
Editor: Kochan, H.

11:00 **PILLINGER, C.T.**; SIMS, M.R.
PS7-027 The Beagle lander for Mars Express (Solicited Paper)
11:30 **PALOMBA, E.**; COLANGELI, L.; ESPOSITO, F.;
PS7-028 MENNELLA, V.; ROTUNDI, A.; BUSSOLETTI, E.
Infrared reflectance spectra of Martian analogues
11:45 **BLECKA, M.I.**; COLANGELI, L.; PALOMBA, E.;
PS7-029 ESPOSITO, F.
Simulations of the Martian spectral radiance in the presence of atmospheric dust
12:00 PICARDI, G.; SEU, R.; SORGE, S.; FEDERICO,
PS7-030 C.; OROSEI, R.
Radar subsurface sounding in the Mars Express 2003 mission
12:15 HAUS, R.
PS7-031 Modelling of atmospheric dust emission and surface reflectance of Mars applying a radiative transfer simulation in the 2.0 and 2.7 μm CO_2 bands
12:30 JENNISKENS, P.
PS7-032 The November 1998/99 Leonid meteor shower update (Solicited Paper)
13:00 END OF SESSION

PS8 Meteorites and cosmochemistry

Convener: Jagoutz, E.
Co-Convener(s): Robert, F.
Monday, 20 April 1998
Lecture Room: M1
Chairperson: N.N.

09:00 CASANAOVA, I.
Cosmochemistry of reduced silicon in the solar nebula and planetary cores
09:15 **MATAS, J.**; GUYOT, F.; RICARD, Y.
Metal-silicate interactions in meteorites
09:30 KRESTINA, N.; JAGOUTZ, E.; KURAT, G.
Core-rim and rim-matrix relationships in individual chondrules as inferred from the Sm-Nd isotope data
09:45 BOGDANOVSKI, O.; LUGMAIR, G.W.; SHUKOLYUKOV, A.
Excess 53-Cr in the primitive achondrite divnoe
10:00 **BONINO, G.**; CINI-CASTAGNOLI, G.; BHANDARI, N.; DELLA MONICA, P.; TARICCO, C.
On the solar modulation of cosmogenic radioisotopes in meteorites over the last two centuries
10:15 KOCHEMASOV, G.
Felsic continents of Mars
10:30 END OF SESSION
17:00 Opening
19:30 Reception

PS9 Lunar exploration I

Convener: Foing, B.H.
Co-Convener(s): Hoffmann, H.
Thursday, 23 April 1998
Lecture Room: M9
Chairperson: Foing, B.H.
Editors: Foing, B.H.; Hoffmann, H.

14:00 BINDER, A.B.
PS9-001 Lunar Prospector's polar orbit mapping mission (Solicited Paper)
14:30 **WÄHLISCH, M.**; HOFFMANN, H.; GIESE, B.;
PS9-002 OBERST, J.; KOEHLER, U.; JAUMANN, R.
Digital terrain model at the lunar south pole from Clementine data
14:45 PINET, P.C.; CHEVREL, S.; SHEVCHENKO,
PS9-003 V.V.; DAYDOU, Y.
Lunar regolith properties at Reiner gamma formation
15:00 **KOEHLER, U.**; JAUMANN, R.; NEUKUM, G.
PS9-004 Stratigraphic relations and spectral characteristics of northern nearside light plains
15:15 HIESINGER, H.; KÖHLER, U.; JAUMANN, R.;
PS9-005 NEUKUM, G.; HEAD III, J.W.
Ages and TiO_2-content of lunar basalts: a stratigraphic approach
15:30 BUSSEY, D.B.J.; SPUDIS, P.D.
PS9-006 Analysis of lunar basins using Clementine data
15:45 **JAUMANN, R.**; HIESINGER, H.; HEAD III, J.W.
PS9-007 Stratigraphic studies of the boundary region between Mare Serenitatis and Mare Tranquillitatis
16:00 **SURKOV, YU.**; MOSKALEVA, L.; SHCHEGLOV,
PS9-008 O.; SHERETOV, E.
Search of water on the Moon
16:15 IP, W.-H.
PS9-009 Surface transport and storage of water on the Moon
16:30 **WEITZ, C.**; HEAD III, J.
PS9-010 Explosive volcanic eruptions o the moon
16:45 END OF PART I

PS9 Lunar exploration - Poster Session

Convener: Foing, B.H.
Co-Convener(s): Hoffmann, H.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 3 - PS
Editors: Foing, B.H.; Hoffmann, H.

PS021 **BANASZKIEWICZ, M.**; GABRYSZEWSKI,
PS9-028 R.; RATAJ, M.; ZARNOWIECKI, T.
Observations of lunar sodium from the Lunarsat: a model
PS022 BRAUN, H.M.; LENTZ, H.
PS9-029 Measurement results of a stepped-frequency ground penetration radar test campaign in view of planetary exploration
PS023 **CIERPKA, K.**; KIRSCH, E.; MALL, U.;
PS9-030 WILKEN, B.; GLOECKLER, G.; GALVIN, A.; CHOTOO, K.
Identification of lunar pick-up ions in interplanetary space: WIND/STICKS results
PS024 KOCHEMASOV, G.
PS9-031 The deepest lunar spa basin and its infilling

PS9 Lunar exploration II

Convener: Foing, B.H.
Co-Convener(s): Hoffmann, H.
Friday, 24 April 1998
Lecture Room: M9
Chairperson: Hoffmann, H.
Editors: Foing, B.H.; Hoffmann, H.

08:30 LANGEVIN, Y.
PS9-011 Scientific rationale for the new generation of lunar missions (Solicited Paper)
09:00 **PETROVA, N.**; GUSEV, A.
PS9-012 Physical libration of the Moon and dissipative processes in lunar interior
09:15 **MIZUTANI, H.**; FUJIMURA, A.; HAYAKAWA,
PS9-013 M.; TANAKA, S.; SHIRAISHI, H.; KOYAMA, J.; YAMADA, I.; MURAKAMI, H.; ISHIHARA, Y.; ITO, K.
The Japanese lunar mission: Lunar - A (Solicited Paper)
09:45 **KAWANO, N.**; OOE, M.; NAMIKI, N.
PS9-014 Selenodesy from differential VLBI, relay satellite and laster altimeter experiments
10:00 BRAUN, H.M.; MAVROCORDATES, C.
PS9-015 Simulation and performance prediction of an orbiter based planetary ground penetration radar
10:15 IWATA, T.
PS9-016 Japanese SELENE status quo *
10:30 BREAK

Chairperson: Hoffmann, H.
Editors: Foing, B.H.; Hoffmann, H.

11:00 **RACCA, G.D.**; FOING, B.H.
PS9-017 ESA SMART-1 potential science from lunar orbit *

PS

11:15 **TAKEUCHI, S.**; HARUYAMA, J.-I.; OTAKE, H.; MATSUNAGA, T.
PS9-018 Lunar imager/spectrometer of SELENE mission
11:30 FOING, B.H.; EUROMOON TEAM
PS9-019 Science goals and model payload for EUROMOON * (Solicited Paper)
12:00 BUSSEY, D.B.J.; SPUDIS, P.D.
PS9-020 Darkness at the lunar south pole, as seen by Clementine
12:15 **KMINEK, G.**; FOING, B.H.; EUROMOON, TEAM
PS9-021 Lunar surface science from EUROMOON rovers *
12:30 **HYVÖNEN, P.**; RIEMANN, R.; ECKART, P.; WAHLUND, J.E.; LUNARSAT TEAM
PS9-022 Lunarsat: a low-cost lunar micro-orbiter *
12:45 YUNG, K.L.; **NG, T.C.**; CHAN, C.C.; YU, C.H.
PS9-032 Performance analysis of 2 verses 3-jaws tools for autonomous geological sampling on remote planet
13:00 LUNCH

Chairperson: Foing, B.H.
Editors: Foing, B.H.; Hoffmann, H.

14:00 RIEMANN, R.; HYVONEN, P.; WAHLUND,
PS9-023 J.-E.; ECKART, P.
LunarSat science experiments
14:15 HOFFMANN, H.; GROTHUES, H.-G.;
PS9-024 MICHAELIS, H.; NEUKUM, G.
High resolution orbiter camera for the EUROMOON orbital phase
14:30 LASSEUR, CH.; VERSTRAETE, W.; GROS, J.B.;
PS9-025 GAUDIA, F.; RICHALET, J.; DUBERTRET, G.; DIELS, L.
MELISSA: preparation of flight experiments
14:45 FELDMAN, W.C.; BINDER, A.B.; MAURICE, S.;
PS9-026 LAWRENCE, D.J.; BARRACLOUGH, B.J.; ELPHIC, R.C.
Search for deposits of water ice at the lunar poles: first results from Lunar Prospector *
15:00 MAURICE, S.; FELDMAN, W.C.; BINDER, A.B.;
PS9-027 LAWRENCE, D.J.; BARRACLOUGH, B.J.; ELPHIC, R.C.
Effects of surface temperature on leakage spectra of thermal neutrons from the Moon: first results from Lunar Prospector *
15:15 INTERNATIONAL LUNAR EXPLORATION WORKING GROUP
Panel discussion on future lunar exploration and space agencies plans (Solicited Paper)
15:45 Concluding Remarks
16:00 END OF SESSION

PS10 Interrelations between asteroids, near-Earth asteroids and meteorites

Convener: Froeschlé, C.
Co-Convener(s): Morbidelli, A.
Monday, 20 April 1998
Lecture Room: M4
Chairpersons: Morbidelli, A.; Grieve, R.A.F.

09:00 **GRIEVE, R.A.F.**
Terrestrial impact structures; an imcomplete record of the impact flux throughouth geologic time (Solicited Paper)
09:30 **MUINONEN, K.**; VIRTANAN, J.; BOWELL, E.
Planetary collision probability for single-apparition asteroids
09:45 **DOTTO, E.**; BARUCCI, M.A.; DORESSOUNDIRAM, A.; FULCHIGNONI, M.
Asteroid spectra and meteorite types
10:00 **OBERST, J.**; MOTTOLA, S.; HAHN, G.; HARRIS, A.; GIESE, B.; WAGNER, R.; NELSON, R.; DS-1 SCIENCE TEAM
3352 McAuliffe: orbit and physical model of the DS-1 target asteroid
10:15 BREAK

Chairpersons: Froeschlé, C.; Hahn, G.

10:45 GLADMAN, B.
Dynamical interrelations between meteorites, neas, comets, and asteroids (Solicited Paper)
11:15 MICHEL, P.
Dynamical evolution of near-Earth asteroids
11:30 NESVORNY, D.
Chaotic diffusion and the origin of NEA's
11:45 **BOTTKE, W.F.**; JEDICKE, R.; SPAHR, T.; MORBIDELLI, A.
Debiasing the detected population of NEOs (Solicited Paper)
12:15 **HAHN, G.**; HOFFMANN, M.; MOTTOLA, S.; NEUKUM, G.; SCHOLL, H.; MAURY, A.
The O.C.A.-DLR Asteroid Survey (O.D.A.S.)
12:30 VOKROUHLICKY, D.
Yarkovsky thermal effects as a source of mobility for asteroidal fragments
12:45 SCHERER, K.
On the orbits of ß-Meteorids, ß > 1
13:00 BABADZHANOV, P.B.
Near-Earth asteroids associated with meteor showers
13:15 END OF SESSION
17:00 Opening
19:30 Reception

PS11 Observation of solar-system objects with ISO I

Convener: Encrenaz, T.
Co-Convener(s): Grün, E.
Monday, 20 April 1998
Lecture Room: M2
Co-sponsored by: ESA
Chairperson: Encrenaz, T.

Planets

09:00 **FEUCHTGRUBER, H.**; LELLOUCH, E.; ENCRENAZ, T.; BEZARD, B.; DE GRAAUW, T.; DAVIES, G.R.
Observations of the giant planets with ISO-SWS: evidence for external oxygen and determination of the D/H ratio (Solicited Paper)
09:30 **DAVIS, G.R.**; GRIFFIN, M.J.; NAYLOR, D.A.; OLDHAM, P.G.; SIDHER, S.D.; SWINYARD, B.M.; GAUTIER, D.; IRWIN, P.G.J.; ORTON, G.S.; ADE, P.A.R.; BURGDORF, M.
Observations of the giant planets with ISO/LWS: determination of the D/H ratio (Solicited Paper)

10:00 BEZARD, B.
Observations of hydrocarbons in the giant planets with ISO-SWS (Solicited Paper)
10:30 BREAK

Chairperson: Feuchtgruber, H.

11:00 **ROMANI, P.N.**; BEZARD, B.; ENCRENAZ, T.; FEUCHTGRUBER, H.
Detection of methyl radical in Neptune's atmosphere from ISO-SWS observations
11:15 DROSSART, P.
Jupiter and Saturn at 2.5-5 micrometers: comparison of ISO/SWS and Galileo/NIMS (Solicited Paper)
11:45 **FOUCHET, T.**; ENCRENAZ, TH.; DROSSART, P.; FEUCHTGRUBER, H.; LELLOUCH, E.; BEZARD, B.; DE GRAAUW, TH.
Observations of Jupiter with ISO-SWS: temperature and composition of the stratosphere and upper troposphere
12:00 **MORRIS, P.**; DE GRAAUW, TH.; ENCRENAZ, T.
Martian mineralogy from mid-infrared spectra: prospects with new short wavelength spectrometer observations
12:15 **ENCRENAZ, TH.**; LELLOUCH, E.; FEUCHTGRUBER, H.; DE GRAAUW, TH.; DAVIS, G.R.; PAUBERT, G.; GULKIS, S.
A study of the water vertical distribution on Mars from ISO and IRAM measurements

Satellites and outer solar-system bodies

12:30 **SCHMITT, B.**; LELLOUCH, E.; DOUTE, S.; FEUCHTGRUBER, H.; DE BERGH, C.; DESCAMPS, P.; CROVISIER, J.
The spectrum of Io from ISO-SWS observations (Solicited Paper)
13:00 LUNCH

Chairperson: Bézard, B.

14:00 **LICHTENBERG, G.**; THOMAS, N.
Observations of SIV in the Io plasma torus with ISO
14:15 **COUSTENIS, A.**; ENCRENAZ, TH.; SALAMA, A.; LELLOUCH, E.; GAUTIER, D.; KESSLER, M.F.; DE GRAAUW, TH.; SAMUELSON, R.E.; BJORAKER, G.L.; ORTON, G.; WITTEMBERG, R.
Titan thermal emission from ISO observations (Solicited Paper)
14:45 **COURTIN, R.**; LELLOUCH, E.; BILLEBAUD, F.; CLAES, P.; NOLL, K.
The 5-to-7 micron spectrum of Titan
15:00 **OWEN, T.**; CRUIKSHANK, D.P.; ROUSH, T.; GEBALLE, T.; DALLEORE, C.; MEIER, R.
The dark side of Iapetus (Solicited Paper)
15:30 **LELLOUCH, E.**; SCHMITT, B.; LAURCIJS, R.; QUIRICO, E.; DE BERGH, C.; CROVISIER, J.; COUSTENIS, A.
Isophot observations of the Pluto/Charon system
15:45 THOMAS, N.; IP, W.-H.; FITZSIMMONS, A.; HAHN, G.; KELLER, H.U.; RAUER, H.; WILLIAMS, I.
ISO observations of Kuipber Belt Objects

Comets, zodiacal light and asteroids

16:00 BOCKELEE-MORVAN, D.; CROVISIER, J.; LEECH, K.; BROOKE, T.Y.; HANNER, M.S.; ALTIERI, B.; KELLER, H.U.; LELLOUCH, E.; LIM, T.
The infrared spectrum of comet Hale-Bopp observed by ISO (Solicited Paper)
16:30 END OF PART I
17:00 Opening
19:30 Reception

PS11 Observation of solar-system objects with ISO II

Convener: Encrenaz, T.
Co-Convener(s): Grün, E.
Tuesday, 21 April 1998
Lecture Room: M2
Co-sponsored by: ESA
Chairperson: Grün, E.

09:00 PESCHKE, S.B.; GRUEN, E.; ISOPHOT COMET TEAM
Observations of distant comets with ISO (Solicited Paper)
09:30 COLANGELI, L.; **EPIFANI, E.**; FULLE, M.; MENNELLA, V.; PALUMBO, P.; ROTUNDI, A.; BUSSOLETTI, E.
Analysis of the cometary dust environment by means of ISOCAM imaging
09:45 **ABRAHAM, P.**; LEINERT, CH.; LEMKE, D.
Observation of the zodiacal light with ISO (Solicited Paper)
10:15 **MÜLLER, T.G.**; LAGERROS, J.S.V.; BURGDORF, M.; LIM, T.; MORRIS, P.; SALAMA, A.; SCHULZ, B.; VANDENBUSSCHE, B.
Fundamental thermal emission parameters of CERES - derived from ISO observations
10:30 MÜLLER, T.G.; **LAGERROS, J.S.V.**; SCHULZ, B.
Asteroids as far-infrared standards for calibrating isophot
10:45 END OF SESSION

PS11 Observation of solar-system objects with ISO - Poster Session

Convener: Encrenaz, T.
Co-Convener(s): Grün, E.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 3 - PS
Co-sponsored by: ESA

PS051 **OLDHAM, P.G.**; DAVIS, G.R.; GRIFFIN, M.J.; NAYLOR, D.A.; SWINYARD, B.M.; IRWIN, P.G.J.; ORTON, G.S.; ADE, P.A.R.; BURGDORF, M.J.
Observations of Jupiter and Saturn with ISO/LWS: measurement of the grating spectrum and detection of methane

PS052 **NAYLOR, D.A.**; DAVIS, G.R.; GRIFFIN, M.J.; OLDHAM, P.G.; SWINYARD, B.M.; IRWIN, P.G.J.; ORTON, G.S.; ADE, P.A.R.; BURGDORF, M.; ENCRENAZ, TH.; DE GRAAUW, T.
Observations of Jupiter and Saturn with ISO/LWS: measurement of the Fabry-Perot spectrum

PS053 **ATREYA, S.K.**; ENCRENAZ, TH.; BEZARD, B.; FEUCHTGRUBER, H.; LELLOUCH, E.; BISHOP, J.; EDGINGTON, S.; DE GRAAUW, TH.; DAVIS, G.R.; KESSLER, M.F.
ISO observations of Uranus: the stratospheric distribution of C_2H_2 and the eddy diffusion coefficient

PS054 **BURGDORF, M.J.**; DAVIS, G.R.; GRIFFIN, M.J.; OLDHAM, P.G.; SWINYARD, B.M.; ORTON, G.S.; ADE, P.A.R.; NAYLOR, D.A.; ENCRENAZ, TH.; DE GRAAUW, TH.; LELLOUCH, E.
Observations of Neptune with ISO/LWS

PS055 **HERAS, A.M.**; FEUCHTGRUBER, H.; LAHUIS, F.; LELLOUCH, E.; LEECH, K.; LORENTE, R.; MORRIS, P.; SALAMA, A.; VANDENBUSSCHE, B.; WIEPRECHT, E.
ISO spectroscopic observations of atmospheric components on Jupiter and Saturn satellites

PS056 **FEUCHTGRUBER, H.**; BURGDORF, M.; HERAS, A.M.; LAHUIS, F.; LEECH, K.; LIM, T.; LORENTE, R.; MORRIS, P.W.; PEZZUTO, S.; SALAMA, A.; TOMMASI, E.; VANDENBUSSCHE, B.; WIEPRECHT, E.; GRIFFIN, M.; OLDHAM, P.G.; DAVIES, G.R.; SWINYARD, B.M.
ISO spectra of Callisto and Ganymede from 2.38-196 micron

PS057 CROVISIER, J.; ENCRENAZ, T.; LELLOUCH, E.; BOCKELEE-MORVAN, D.; ALTIERI, B.; LEECH, K.; SALAMA, A.; BALUTEAU, J.P.; GRIFFIN, M.; DE GRAAUW, T.; VAN DISHOECK, E.; KNACKE, R.; BROOKE, T.Y.
Spectroscopic observations of short-period comets with ISO

PS058 WIDEMANN, T.
Ground observation and detection of molecular lines of C/1995 O1 Hyakutake and C/1997 O_2 Hale-Bopp in telluric water vapor absorption band near 9360

PS059 **MORRIS, P.**; VANDENBUSSCHE, B.; FEUCHTGRÜBER, H.; HERAS, A.M.; LAHUIS, F.; LEECH, K.; LORENTE, R.; SALAMA, A.; WIEPRECHT, E.
SWS spectral scans of asteroid 4 Vesta

PS060 **VANDENBUSSCHE, B.**; SALAMA, A.; FEUCHTGRUBER, H.; HERAS, A.M.; LAHUIS, F.; LEECH, K.; LORENTE, R.; MORRIS, P.; WIEPRECHT, E.
ISO-SWS spectra of the major asteroid classes: clues to mineralogy and chemistry of the solar system

PS061 **BARUCCI, M.A.**; CROVISIER, J.; DORESSOUNDIRAM, A.; DOTTO, E.; ENCRENAZ, TH.; FULCHIGNONI, M.; KNACKE, R.F.; LELLOUCH, E.
ISO observations of asteroids

PS12 Planet formation and extra-solar planets I

Convener: Barge, P.
Co-Convener(s): Morfill, G.E.
Tuesday, 21 April 1998
Lecture Room: M4
Co-sponsored by: Lab. d'Astronomie Spatiale, IAU, COSPAR, CNRS, INSU, CNES
Chairperson: Mayor, M.
Editors: Barge, P.; Morfill, G.E.

14:00 **TANAKA, H.**; IDA, S.
PS12-001 Growth of a migrating protoplanet (Solicited Paper)
14:30 **TRILLING, D.E.**; LUNINE, J.I.; BENZ, W.;
PS12-002 GUILLOT, T.; HUBBARD, W.B.; BURROWS, A.
Migration and evolution of extrasolar planets
14:45 **ATHANASSOULA, A.**; BARGE, P.
PS12-003 Planetesimal dynamcis with a massive perturber
15:00 LISSAUER, J.J.
PS12-004 Theories of giant planet formation (Solicited Paper)
15:30 **ZIGLINA, I.N.**; MAKALKIN, A.B.;
PS12-005 DOROFEEVA, V.A.; SAFRONOV, V.S.
Mass and heat transfer related to infall of the envelope onto the protoplanetary disk
15:45 **CHAVANIS, P.H.**; PROVENZALE, A.; BARGE,
PS12-006 P.; SOMMERIA, J.
Trapping of dust by coherent vortices in protoplanetary disks
16:00 GUILLOT, T.
PS12-007 Giant platnet formation: learning from the inside
16:15 **KIMURA, H.**; MANN, I.
PS12-008 Radiation pressure on dust aggregates in circumstellar disks
16:30 END OF PART I

PS12 Planet formation and extra-solar planets II

Convener: Barge, P.
Co-Convener(s): Morfill, G.E.
Wednesday, 22 April 1998
Lecture Room: M4
Co-sponsored by: Lab. d'Astronomie Spatiale, IAU, COSPAR, CNRS, INSU, CNES
Chairperson: Lissauer, J.J.
Editors: Barge, P.; Morfill, G.E.

09:00 BUTLER, P.
PS12-009 The discovery of extrasolar planets (Solicited Paper)
09:30 **MAYOR, M.**; BEUZIT, J.-L.; MARIOTTI, J.-M.;
PS12-010 NAEF, D.; PERRIER, C.; QUELOZ, D.; SIVAN, J.-P.
The Haute-Provence Observatory giant planet survey
09:45 **ROUAN, D.**; LEGER, A.; BARGE, P.;
PS12-011 SCHNEIDER, J.
Searching for planets with the Corot space mission
10:00 SCHNEIDER, J.
PS12-012 How to search for rings and satellites of extra-solar planets
10:15 **RAUER, H.**; SCHNEIDER, H.;
PS12-013 BOCKELEE-MORVAN, D.; COUSTENIS, A.; CHASSEFIERE, E.; GUILLOT, T.
Search for an extended exosphere around 51 Peg B with ISO

10:30 **MARLEY, M.**; GELINO, C.; STEPHENS, D.;
PS12-014 LUNINE, J.
What can we learn from extrasolar giant planets?
10:45 Concluding Remarks
11:00 END OF SESSION
12:00 Business Meetings

PS12 Planet formation and extra-solar planets - Poster Session

Convener: Barge, P.
Co-Convener(s): Morfill, G.E.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: AGORA 3 - PS
Co-sponsored by: Lab. d'Astronomie Spatiale, IAU, COSPAR, CNRS, INSU, CNES
Editors: Barge, P.; Morfill, G.E.

PS064 **GELINO, C.R.**; MARLEY, M.; STEPHENS,
PS12-016 D.; LUNINE, J.
Model bond albedos of extra-solar giant planets
PS065 DELEUIL, M.
PS12-017 Spectroscopic observation of the ß pictoris disk with ISO
PS066 **MANN, I.**; HANNER, M.
PS12-018 Solar system dust beyond the ateroid belt

PS13 Mars Pathfinder Mission: Update I

Convener: Keller, H.U.
Co-Convener(s): Golombek, M.P.; Wänke, H.
Tuesday, 21 April 1998
Lecture Room: IRIS
Chairperson: Keller, H.U.

08:30 GOLOMBEK, M.P.
The Mars Pathfinder mission and science results (Solicited Paper)
08:55 SMITH, P.H.
The Imager for Mars Pathfinder experiment (IMP) (Solicited Paper)
09:20 RIEDER, R.; WÄNKE, H.; BRÜCKNER, J.; DREIBUS, G.; ECONOMOU, T.; TURKEVICH, A.; CRISP, J.; MCSWEEN, H.Y.
The chemical composition of Martian soil and rocks at the Pathfinder landing site: current results from APX measurements (Solicited Paper)
09:45 WILSON, G.; ET AL
An overview of the Mars Pathfinder Atmospheric Structure Instrument/Meteorologic Experiment (ASI/MET) * (Solicited Paper)
10:10 KNUDSEN, J.M.
On the origin of the martian dust * (Solicited Paper)
10:35 BREAK

Chairperson: Golombek, M.P.

11:00 **JAUMANN, R.**; HAUBER, E.; OBERST, J.; MATZ, K.-D.; TRAUTHAN, F.
Surface morphology at the Pathfinder landing site (Solicited Paper)
11:25 JOHNSON, J.R.; SODERBLOM, L.; **KIRK, R.**; GADDIS, L.; SMITH, P.H.; LEMMON, M.; BRITT, D.; THOMAS, N.; BELL, J.; BRIDGES, N.T.; ANDERSON, R.; MURCHIE, S.M.; DUMMEL, A.; ARNOLD, G.; LAMPEN, P.; TRAUTHAN, F.
Photometry of selected material at the Mars Pathfinder landing site (Solicited Paper)
11:50 THOMAS, N. ET AL
Dust in the Martian ..... * (Solicited Paper)
12:15 **YODER, C.F.**; FOLKNER, W.M.; YUAN, D.N.; STANDISH, E.M.; STANDISH, R.A.
Mars' rotation and precession from Pathfinder and Viking radio tracking data (Solicited Paper)
12:40 LUNCH

Chairperson: Smith, P.

14:00 SMITH, D.E.; ZUBER, M.T.; GARVIN, J.B.; HEAD, J.W.; FREY, H.V.; MUHLEMAN, D.O.; PHILLIPS, R.J.; SOLOMON, S.C.; PETTENGILL, G.H.; ZWALLY, H.J.; BANERDT, W.B.; DUXBURY, T.C.
Early results from the Mars Orbiter Laser Altimeter experiment: an overview (Solicited Paper)
14:25 MAGALHAES, J.A.; SEIFF, A.; SCHOFIELD, J.T.; BARNES, J.R.; CRISP, D.; HABERLE, R.; LARSEN, S.; MURPHY, J.; WILSON, G.
Latest results from the Mars Pathfinder: atmospheric structure investigation
14:40 **WILSON, G.R.**; LARSON, S.; MURPHY, J.R.; SEIFF, A.; HABERLE, R.M.; MAGALHAES, J.; CRISP, D.; SCHOFIELD, J.T.; BARNES, J.R.
The Martian surface boundary layer: latest results from Mars Pathfinder
14:55 JORGENSEN, H.E.; LANDBERG, L.; **LARSEN, S.E.**; MURPHY, J.R.; TILLMAN, J.E.; WILSON, G.R.
Turbulence moments and spectra in the Martian atmospheric surface boundary layer
15:10 **HABERLE, R.**; JOSHI, M.; MURPHY, J.; HOLLINGWORTH, J.; BARNES, J.; SCHAEFFER, J.
GCM simulations of the Mars Pathfinder ASI/MET data
15:25 **LEMMON, M.T.**; SMITH, P.H.; TOMASKO, M.G.
Imager for Mars Pathfinder observations of aerosol structure: twilight, clouds, and dust
15:40 TITOV, D.V.; MARKIEWICZ, W.J.; THOMAS, N.; KELLER, H.U.; SABLOTNY, R.; LEMMON, M.; TOMASKO, M.; SMITH, P.
Measurements of the atmospheric water vapour on Mars by the imager for Mars Pathfinder
15:55 **MARKIEWICZ, W.J.**; SABLOTNY, R.M.; THOMAS, N.; KELLER, H.U.; TITOV, D.; SMITH, P.
Optical properties of the Martian aerosols as derived from Imager for Mars Pathfinder midday sky brightness data

PS

* not included in the Book of Abstracts

16:10 KIRK, R.; ANDERSON, J.; BARRETT, J.; BECKER, K.; BECKER, T.; BENNETT, A.; BLUE, J.; COOK, D.; ELIASON, E.; GADDIS, L.; GARCIA, P.; GORDON, M.; HARE, T.; HOWINGTON-KRAUS, A.; ISBELL, C.; JOHNSON, J.; LEE, E.; MORGAN, H.; REDDING, B.; ROSANOVA, T.; SODERBLOM, L.; SUCHARSKI, R.; SUCHARSKI, T.; THOMPSON,K.; TORSON, J.; WEARD, W.; DORRER, E.; SMITH, P.; BRITT, D.; PATHFINDER SCIENCE TEAM
Mapping the Sagan Memorial station site with the IMP camera (Poster)

16:13 **MADSEN, M.B.**; HVIID, S.F.; GUNNLAUGSSON, H.P.; KNUDSEN, J.M.; GOETZ, W.; DINESEN, A.R.; MOGENSEN, C.T.; PEDERSEN, C.T.; HARGRAVES, R.B.
The magnetic properties instruments on Mars Pathfinder. Possible use in future missions (Poster)

16:16 REID, R.J.; SMITH, P.H.; THOMAS, N.; DUMMEL, A.
IMP image calibration (Poster)

16:19 **SABLOTNY, R.M.**; MARKIEWICZ, W.J.; THOMAS, N.; KELLER, H.U.
Reflection functions of Martian soils near the Carl-Sagan-Memorial-Station (Poster)

16:22 SODERBLOM, L.; ANDERSON, J.; BARRETT, J.; BECKER, K.; BECKER, T.; BENNETT, A.; BLUE, J.; COOK, D.; ELIASON, E.; GADDIS, L.; GARCIA, P.; GORDON, M.; HARE, T.; HOWINGTON-KRAUS, A.; ISBELL, C.; JOHNSON, J.; KIRK, R.; LEE, E.; MORGAN, H.; REDDING, B.; ROSANOVA, T.; SUCHARSKI, R.; SUCHARSKI, T.; THOMPSON, K.; TORSON, J.; WARD, W.; SMITH, P.; BRITT, D.; PATHFINDER SCIENCE TEAM
The Mars Pathfinder super pan: USGS analysis and processing (Poster)

16:25 **SOHL, F.**; SPOHN, T.
The sulfur content of the Martian core revisited: conclusions from Mars Pathfinder tracking (Poster)

16:28 **WUTTKE, M.W.**; THMOAS, N.; KELLER, H.U.; SMITH, P.H.; STOKER, C.; BLACKMON, T.
Monte Carlo modelling of the diffuse flux near rocks (Poster)

16:31 END OF PART I

Planetary and Space Science

an official journal of the EGS for the publication of your results presented at the 23rd General Assembly

---

PS13 Mars Pathfinder Mission: Update - Poster Session

Convener: Keller, H.U.
Co-Convener(s): Golombek, M.P.; Wänke, H.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 3 - PS
Chairperson: Johnson, J.R.

PS027 KIRK, R.; ANDERSON, J.; BARRETT, J.; BECKER, K.; BECKER, T.; BENNETT, A.; BLUE, J.; COOK, D.; ELIASON, E.; GADDIS, L.; GARCIA, P.; GORDON, M.; HARE, T.; HOWINGTON-KRAUS, A.; ISBELL, C.; JOHNSON, J.; LEE, E.; MORGAN, H.; REDDING, B.; ROSANOVA, T.; SODERBLOM, L.; SUCHARSKI, R.; SUCHARSKI, T.; THOMPSON,K.; TORSON, J.; WEARD, W.; DORRER, E.; SMITH, P.; BRITT, D.; PATHFINDER SCIENCE TEAM
Mapping the Sagan Memorial station site with the IMP camera

PS028 **MADSEN, M.B.**; HVIID, S.F.; GUNNLAUGSSON, H.P.; KNUDSEN, J.M.; GOETZ, W.; DINESEN, A.R.; MOGENSEN, C.T.; PEDERSEN, C.T.; HARGRAVES, R.B.
The magnetic properties instruments on Mars Pathfinder. Possible use in future missions

PS029 REID, R.J.; SMITH, P.H.; THOMAS, N.; DUMMEL, A.
IMP image calibration

PS030 **SABLOTNY, R.M.**; MARKIEWICZ, W.J.; THOMAS, N.; KELLER, H.U.
Reflection functions of Martian soils near the Carl-Sagan-Memorial-Station

PS031 SODERBLOM, L.; ANDERSON, J.; BARRETT, J.; BECKER, K.; BECKER, T.; BENNETT, A.; BLUE, J.; COOK, D.; ELIASON, E.; GADDIS, L.; GARCIA, P.; GORDON, M.; HARE, T.; HOWINGTON-KRAUS, A.; ISBELL, C.; JOHNSON, J.; KIRK, R.; LEE, E.; MORGAN, H.; REDDING, B.; ROSANOVA, T.; SUCHARSKI, R.; SUCHARSKI, T.; THOMPSON, K.; TORSON, J.; WARD, W.; SMITH, P.; BRITT, D.; PATHFINDER SCIENCE TEAM
The Mars Pathfinder super pan: USGS analysis and processing

PS032 **SOHL, F.**; SPOHN, T.
The sulfur content of the Martian core revisited: conclusions from Mars Pathfinder tracking

PS033 **WUTTKE, M.W.**; THMOAS, N.; KELLER, H.U.; SMITH, P.H.; STOKER, C.; BLACKMON, T.
Monte Carlo modelling of the diffuse flux near rocks

PS13 Mars Pathfinder Mission: Update II

Convener: Keller, H.U.
Co-Convener(s): Golombek, M.P.; Wänke, H.
Wednesday, 22 April 1998
Lecture Room: IRIS
Chairperson: Jaumann, R.

09:00 **MARCHENKO, A.G.**; BASILEVSKY, A.T.; NEUKUM, G.; HAUBER, E.; HOFFMANN, H.; COOK, A.C.
Geologic history of the mouth of Ares and Tiu Valles, Mars

09:15 GREELEY, R.; SULLIVAN, R.; KRAFT, M.; SMITH, P.; MALIN, M.; KUZMIN, R.; GOLOMBEK, M.P.; HERKENHOFF, K.
Mars Pathfinder landing site: wind-related features

09:30 **GOLOMBEK, M.P.**; HALDEMANN, A.F.C.; MOORE, H.J.; PARKER, T.J.; SCHOFIELD, J.T.
Assessment of Mars Pathfinder landing site predictions

09:45 **HALDEMANN, A.F.C.**; JURGENS, R.F.; GOLOMBEK, M.P.; SLADE, M.A.; MOORE, H.; BLACKMON, T.
Mars Pathfinder landing site radar properties

10:00 **HAUBER, E.**; JAUMANN, R.; MOSANGINI, C.; RUSS, N.; MATZ, K.-D.; TRAUTHAN, F.
The rock population at the Pathfinder landing site

10:15 **HALDEMANN, A.F.C.**; ANDERSON, R.C.; BRIDGES, N.T.; HAUBER, E.; JAUMANN, R.; GOLOMBEK, M.P.
Rock statistics at the Mars Pathfinder landing site

10:30 BREAK

Chairperson: Knudsen, J.M.

11:00 BASILEVSKY, A.T.; MARKIEWICZ, W.J.; KELLER, H.U.
Morphological characteristics of several rocks within and near the rock garden: Pathfinder landing site, Mars

11:15 **ARNOLD, G.**; DUMMEL, A.; LAMPEN, P.; TRAUTHAN, F.; SMITH, P.; BRITT, D.; JOHNSON, J.R.
Laboratory spectrophotometric measurements of Mars analog materials and implications for the data evaluation of the imager for Mars Pathfinder (IMP)

11:30 **MARKIEWICZ, W.J.**; THOMAS, N.; KELLER, H.U.; SMITH, P.
The colour of the Martian sky and its influence on the illumination of the Martian surface

11:45 **HVIID, S.F.**; MADSEN, M.B.; GUNNLAUGSSON, H.P.; KNUDSEN, J.M.; GOETZ, W.; DINESEN, A.R.; MOGENSEN, C.T.; PEDERSEN, C.T.; HARGRAVES, R.B.
The magnetic properties of the Martian dust as studied on the Mars Pathfinder lander

12:00 LUNCH

12:00 Business Meetings

Chairperson: Wänke, H.

14:00 DREIBUS, G.; WÄNKE, H.
Does the Pathfinder value for the moment of inertia factor imply a non-chondritic Fe/Si ratio of Mars?

14:15 **ZHARKOV, V.N.**; GUDKOVA, T.V.
Internal structure of Mars and Fe/Si ratio

14:30 DUXBURY, T.C.
Precision cartographic map of the Pathfinder landing site

14:45 **OBERST, J.**; ZEITLER, W.; JAUMANN, R.
Pathfinder landing site coordinates: the perspective from the inertial and the global cartographic system

15:00 **GIESE, B.**; OBERST, J.; TRAUTHAN, F.; JAUMANN, R.
Photogrammetric analysis of far-field IMP images

15:15 **DORRER, E.**; KIRK, R.; PEIPE, J.
Rigorous least squares adjustment of imager for Mars Pathfinder panoramic stereobundle block

15:30 Concluding Remarks

16:00 END OF SESSION

PS

1999 General Assembly Den Haag, 19 - 23 April

Attend the open EGS Section/IWG Meetings on Wednesday, 22 April, 12.00-14.00, and make your suggestions to the scientific programme. Further information on the EGS Web Site at http://www.copernicus.org/EGS/EGS.html.

Nonlinear Processes in Geophysics

NP1 Scaling, multifractals and nonlinear variability in geophysics
.1 Scaling, multifractals and nonlinearity in Solid Earth (co-sponsored by SE)

Convener: Schmittbuhl, J.
Co-Convener(s): Bak, P.; Turcotte, D.L.
Monday, 20 April 1998
Lecture Room: M9
Chairperson: Turcotte, D.L.

09:00 PECKNOLD, S.; **LOVEJOY, S.**; SCHERTZER, D.
The magnetic field, scaling stratification and the magnetization sphero-scale
09:15 HIDE, R.
Nonlinear quenching of current fluctuations in a self-exciting homopolar dynamo
09:30 **MARSAN, D.**; BEAN, C.; STEACY, S.; MCCLOSKEY, J.
Short time scale seismic response for mining induced activity and generalised Omori's law *
09:45 **BRITO, V.P.**; GOMES, M.A.F.; SOUZA, F.A.O.
Behaviour of the diversity of fragments in plate breaking
10:00 **SCHMITTBUHL, J.**; LOPEZ, J.
Anomalous scaling of fracture surfaces
10:15 **SAGAR, P.**; PECKNOLD, S.; LOVEJOY, S.; SCHERTZER, D.
Multifractal topography and its bi-directional reflection field
10:30 BREAK

Chairperson: Schmittbuhl, J.

11:00 CATANI, F.; VANNUCCHI, P.
A fractal approach to the structural analysis of melanges
11:15 **VENEZIANO, D.**; NIEMANN, J.D.; BRAS, R.L.
A characterization of nonstationary multifractal processes
11:30 **SMITH, L.A.**; ALLEN, M.
Heteroscedasticity, hurst, and surrogate data: persistence withouth predictability
11:45 GOLITSYN, G.S.
Principle of fastest response in geophysics, hydrodynamics, etc.
12:00 **GOMEZ, J.B.**; PACHECO, A.F.
Size-frequency distribution of earthquakes in hierarchically organized load-transfer models
12:15 **HÄHNER, P.**; DROSSINOS, Y.
A creep-slip model of earthquake faults: analytical and numerical results
12:30 **TURCOTTE, D.L.**; MALAMUD, B.D.; MOREIN, G.
Log periodicity in the forst-fire model
12:45 PELLETIER, J.D.
A fractal pipe model for volcanism
13:00 END OF SUB-SESSION
17:00 Opening
19:30 Reception

NP1 Scaling, multifractals and nonlinear variability in geophysics
.1 Scaling, multifractals and nonlinearity in Solid Earth (co-sponsored by SE) - Poster Session

Convener: Schmittbuhl, J.
Co-Convener(s): Bak, P.; Turcotte, D.L.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 3 - NP
Chairperson: Schmittbuhl, J.

NP001 VALLIANATOS, F.
A scaling law between an electric preseismic anomaly and the magnitude of the associated earthquake
NP002 CUOMO, V.; LAPENNA, V.; PISCITELLI, S.; **TELESCA, L.**; MACCIATO, M.; SERIO, C.
Detecting scaling laws and non-linear dynamics in geoelectrical signals: implications with earthquake prediction
NP003 GOLTZ, C.
Determinism and precursors in earthquake intervals
NP004 KUZNETSOV, V.V.
Fractal character of the Earth's evolution
NP005 KUZNETSOV, V.V.
The self-organizing criticality as the reason of the geomagnetic field reversal
NP006 **BOFFA, J.M.**; ALLAIN, C.; HULIN, J.P.
Experimental analysis of fracture rugosity in granular and compact rocks

NP1 Scaling, multifractals and nonlinear variability in geophysics
.2 Scaling, multifractals and nonlinearity in hydrology (co-sponsored by HS)

Convener: Onof, C.
Co-Convener(s): Olsson, J.; Veneziano, D.
Monday, 20 April 1998
Lecture Room: M9
Chairperson: Onof, C.

14:00 RODRIGUEZ-ITURBE, I.; **MARANI, M.**; D'ODORICO, P.; RINALDO, A.
On space-time scaling of cumulated rainfall fields
14:15 **MARSAN, D.**; SCHERTZER, D.; LOVEJOY, S.
Empirical relation between fractal dimension of support and average activity for space-time rain distributions; comparison with a space-time multifractal model
14:30 DWYER, I.; **LAMMERING, B.**
Relationship between multifractal analysis of rainfall time series and spatial rainfall data (Poster)
14:35 SCHMITT, F.
Multifractal analysis of daily rainfall data
14:50 **PANDEY, G.**; LOVEJOY, S.; SCHERTZER, D.
Multifractal analysis and extremes of daily river flow series for basins five to two million square kilometers
15:05 VENEZIANO, D.; **NIEMANN, J.D.**; BRAS, R.L.
Self-similarity and multifractality of river profiles

15:20 **MOUSSA, R.**; TOURNOUD, M.G.; BOCQUILLON, C.
Fractal analysis of the spatial distribution of source basins within the catchment
15:35 BAKUCZ, P.
Electrical analogy of fractal hydrodynamical dispersion (Poster)
15:40 **JAEKEL, U.**; SCHWARZE, H.; VEREECKEN, H.
Scaling behaviour of macrodispersion in a bromide tracer experiment on the field scale
15:55 GLOBUS, A.M.
On fractal character of soil solid phase surface as revealed by retentivity function (Poster)
16:00 KONTUR, I.; BAKUCZ, P.
Modelling of contaminant transport with help of stochastic particle simulation (Poster)
16:05 **DESAULNIERS-SOUCY, N.**; LOVEJOY, S.; SCHERTZER, D.
Multiscaling properties of the three dimensional spatial distributions of rain and snow in 10 m^3 (Poster)
16:10 **DWYER, I.**; LAMMERING, B.
Using multifractal description of spatial rainfall in GCMs (Poster)
16:15 **AUBERT, D.**; BEAUVAIS, A.; DUBOIS, J.; ORANGE, D.
Nonlinear effects on the temporal evolution of fluvial discharge: case of the Oubangui river (Poster)
16:20 AVERBACH, V.S.; VLASOV, S.N.; ZASLAVSKY, Y.M.
The motion of the liquid droplet pinched into porous medium capillary channel due to vibration
16:25 END OF SUB-SESSION
17:00 Opening
19:30 Reception

NP1 Scaling, multifractals and nonlinear variability in geophysics .2 Scaling, multifractals and nonlinearity in hydrology (co-sponsored by HS) - Poster Session

Convener: Onof, C.
Co-Convener(s): Olsson, J.; Veneziano, D.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 3 - NP
Chairperson: Onof, C.

NP014 DWYER, I.; **LAMMERING, B.**
Relationship between multifractal analysis of rainfall time series and spatial rainfall data
NP007 BAKUCZ, P.
Electrical analogy of fractal hydrodynamical dispersion
NP008 GLOBUS, A.M.
On fractal character of soil solid phase surface as revealed by retentivity function
NP009 KONTUR, I.; BAKUCZ, P.
Modelling of contaminant transport with help of stochastic particle simulation
NP010 **DESAULNIERS-SOUCY, N.**; LOVEJOY, S.; SCHERTZER, D.
Multiscaling properties of the three dimensional spatial distributions of rain and snow in 10 m^3
NP011 **DWYER, I.**; LAMMERING, B.
Using multifractal description of spatial rainfall in GCMs
NP012 **AUBERT, D.**; BEAUVAIS, A.; DUBOIS, J.; ORANGE, D.
Nonlinear effects on the temporal evolution of fluvial discharge: case of the Oubangui river
NP013 AVERBACH, V.S.; VLASOV, S.N.; ZASLAVSKY, Y.M.
The motion of the liquid droplet pinched into porous medium capillary channel due to vibration

NP1 Scaling, multifractals and nonlinear variability in geophysics .3 Scaling, multifractals and nonlinearity in oceans & atmosphere (co-sponsored by OA)

Convener: Schmitt, F.
Co-Convener(s): Cahalan, R.F.; Yanovsky, V.V.
Tuesday, 21 April 1998
Lecture Room: M9
Chairperson: Cahalan, R.F.

Nonlinear dynamics and multifractals

09:00 PELLETIER, J.D.
Scaling of the natural variability of the atmosphere-ocean system
09:15 FOURNIER, A.
Descrption of nonlinear triad interaction in fluid dynamics using trilinear coordinates
09:30 **SCHERTZER, D.**; LARCHEVEQUE, M.; LOVEJOY, S.
Beyond the multifractal phenomenology of geophysics: dynamics and (revisited) renormalization
09:45 KAZANTSEV, E.
Unstable periodic orbits and attractors of non-linear dynamical models
10:00 ROKITYANSKY, I.I.
Quasi-spontaneous variations of physical parameters

Oceanic variability and atmospheric turbulence

10:15 **SEURONT, L.**; SCHMITT, F.; GENTILHOMME, V.; LAGADEUC, Y.; SCHERTZER, D.
Tidally induced heterogeneity in different hydrodynamic conditions: a multifractal analysis
10:30 **MARGUERIT, C.**; SCHERTZER, D.; LOVEJOY, S.
Quantification of multifractal diffusion
10:45 BREAK

Chairperson: Lovejoy, S.M.

11:15 **SCOTTI, A.**; MENEVEAU, C.
Turbulence parameterization using fractal synthetic fields (Solicited Paper)
11:45 **CHILLA, F.**; PINTON, J.-F.
Turbulence measuremens in the neighbourhood of a strong vortex
12:00 EROKHIN, N.S.; MOISEEV, S.S.; LAZAREV, A.A.; MITYAGINA, M.I.; PETRENKO, B.Z.
Analysis of radiobrightness temperature field over tropical cyclone

12:15 SCHMITT, F.
A scale-by-scale validation of continous multifractal models in turbulence
12:30 **ODIER, P.**; PINTON, J.-F.; FAUVE, S.
Experimental MHD study of a liquide gallium flow at moderate magnetic Reynolds numbers
12:45 BENVENUTO, F.; MARANI, A.; MOROVIC, M.
Scaling properties of the surface chlorophyll field in the northern Adriatic (Poster)
12:50 LUNCH

Chairperson: Schmitt, F.

Clouds and radiative transfer

14:00 CAHALAN, R.F.; MORCRETTE, J.J.
Cloud scaling properties and cloud parameterization in the ECMWF forecast model
14:15 ARNEODO, A.
A thermodynamics of fractals based on wavelet analysis: applications to rough surfaces and satellite images of fractal clouds
14:30 **WATSON, B.**; LOVEJOY, S.; SCHERTZER, D.
Nondiffusive scattering statistics in universal multifractal clouds
14:45 **DAVIS, A.**; MARSHAK, A.; CAHALAN, R.F.; WISCOMBE, W.J.
Nonlinearities of 3D radiative transfer, illustrated with boundary-layer clouds (Solicited Paper)
15:15 PEJOUX, R.; **SZCZAP, F.**; ISAKA, H.
Generation of heterogeneous clouds based on morphological analysis and their effective radiative properties
15:30 IVANOVA, K.
Multifractal and chaotic analysis of atmospheric time series
15:45 **ROUX, S.**; CAHALAN, R.F.; DAVIS, A.; ARNEODO, A.; MUZY, J.-F.; BACRY, E.
Multifractal analysis of 1D and 2D cloud data, the "wavelet transform modulus maxima" approach
16:00 GUILLEMET, B.; ISAKA, H.; **SZCZAP, F.**
Spectral analysis of radiative flux of heterogeneous clouds
16:15 STANWAY, D.; LOVEJOY, S.; SCHERTZER, D.
Multifractal analysis of clouds from 5000 km to 50 cm and the demise of the mesoscale gap (Solicited Paper)
16:45 **VESPOLI DE CARVALHO, L.M.**; SILVA DIAS, M.A.F.; TOLEDO MACHADO, L.A.
A method to identify morphology and spatial scale of cloud systems using fractal box-counting dimensions (Poster)

Stand-by paper:
RODICHEV, E.
A numerical investigation of some scaling properties of athmospheric turbulence

16:50 Summary
17:00 END OF SUB-SESSION

NP1 Scaling, multifractals and nonlinear variability in geophysics
.3 Scaling, multifractals and nonlinearity in oceans & atmosphere (co-sponsored by OA) - Poster Session

Convener: Schmitt, F.
Co-Convener(s): Cahalan, R.F.; Yanovsky, V.V.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:30 - 19:00
Poster Area: AGORA 3 - NP

NP015 **FALEIRO, E.**; GOMEZ, J.M.G.
Universal multifractal analysis of ground level particle distributions from extended air showers
NP016 BENVENUTO, F.; MARANI, A.; MOROVIC, M.
Scaling properties of the surface chlorophyll field in the northern Adriatic
NP017 **VESPOLI DE CARVALHO, L.M.**; SILVA DIAS, M.A.F.; TOLEDO MACHADO, L.A.
A method to identify morphology and spatial scale of cloud systems using fractal box-counting dimensions
NP019 MAREEV, E.A.; **SOROKIN, A.E.**; TRAKHTENGERTS, V.YU.
One possible mechanism of electric field scaling in a thunderstorm cell
NP020 BOROVIKOV, V.A.; BULATOV, V.V.; MOROZOV, E.G.
Tidal internal waves in the tropical Atlantic: nonspectral and spectral approaches

NP1 Scaling, multifractals and nonlinear variability in geophysics
.4 Scaling, multifractals and natural/ man-made hazards (co-sponsored by NH) - Poster Session

Convener: Salvadori, G.S.
Co-Convener(s): Malamud, B.D.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 3 - NP

NP022 **DEIDDA, R.**; BENZI, R.; SICCARDI, F.
A model for numerical simulation of the statistical properties of precipitation fields
NP022A KOROBEINIKOV, V.P.
A scale of cosmic-terrestrial catastrophes

Attend the Business Meeting of your Section

on Wednesday, 22 April, 12.00-14.00, Lecture Room M3

NP1 Scaling, multifractals and nonlinear variability in geophysics
.4 Scaling, multifractals and natural/ man-made hazards (co-sponsored by NH)

Convener: Salvadori, G.S.
Co-Convener(s): Malamud, B.D.
Friday, 24 April 1998
Lecture Room: M2
Chairperson: Salvadori, G.S.

08:45 SORNETTE, D.
Prediction of catastrophes: a new approach (Solicited Paper)
09:15 PELLETIER, J.D.
Analysis and modelling of the frequency-size distribution of landslides
09:35 **MALAMUD, B.D.**; MOREIN, G.; TURCOTTE, D.L.
Why do forest fires obey power-law (fractal) frequency-area statistics?
09:55 **CHIGIRINSKAYA, Y.**; SCHERTZER, D.; LOVEJOY, S.
Multifractality of Chernobyl fall-out and the estimation of doses accumulated by individuals
10:15 **RIZZO, V.**; FRAGALE, F.; TULELLI, A.
Methodology to locate geological risk for assurance: an application on the S. Eufemia area (central Calabria, Italy)
10:35 BREAK

Chairperson: Malamud, B.D.

11:00 **DEIDDA, R.**; SICCARDI, F.; BENZI, R.
Multifractal analysis of rainfall fields in time and space
11:20 **DE MICHELE, C.**; KOTTEGODA, N.T.; ROSSO, R.
Self-affinity and dynamic scaling of extreme storm precipitation
11:40 BARTON, C.C.
Scaling laws for tropical storms and hurricanes: a basis for predicting probability lf landfall windspeed
12:00 **TEBBENS, S.F.**; BARTON, C.C.
A fractal scaling law for tsunami runup
12:20 **MONTALDO, N.**; ROSSO, R.
Scale invariance of storm surface runoff (Solicited Paper)
12:50 LUNCH

Chairperson: Salvadori, G.S.

14:00 **RUNDLE, J.B.**; PRESTON, E.; MCGINNIS, S.; KLEIN, W.
Growth and arrest of earthquakes (Solicited Paper)
14:30 MAIN, I.
Apparent (?) breaks in frequency-moment scaling
14:50 KOSSOBOKOV, V.G.; **TURCOTTE, D.L.**; MALAMUD, B.D.
A systematic global assessment of the seismic hazard
15:10 **RUNDLE, J.B.**; KLEIN, W.
Dynamics triggering of slip in earthquakes
15:30 SCHÖNENBERG, F.
Earthquakes in southern France - risk assessment from a reinsurer's point of view
15:50 Concluding Remarks and Discussion
16:30 END OF SESSION

NP2 Predictability & time series analysis
.1 Quantifying predictability - Poster Session

Convener: Toth, Z.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: AGORA 3 - NP
Chairperson: Aberson, S.D.

NP023 **GUTIERREZ, C.**; ORTIZBEVIA, M.J.; RUIZDEELVIRA, A.
Global climate signals and the Spanish rainfall
NP024 **GUTIERREZCEBALLOS, C.**; ORTIZBEVIA, M.J.
Predictability of the North Atlantic anomalous circulation
NP025 **ABERSON, S.D.**; TULEYA, R.E.; BENDER, M.A.
Ensemble forecasting of hurricane tracks and intensity

NP2 Predictability & time series analysis
.1 Quantifying predictability

Convener: Toth, Z.
Thursday, 23 April 1998
Lecture Room: M2
Chairperson: Talagrand, O.

08:30 VANNITSEM, S.
Predictability, Lyapunov vectors and weather regimes in a T21L3 quasi-geostrophic model (Solicited Paper)
09:00 **BONTEMPS, B.**; KÄLLEN, E.
On the relationship between singular vectors and breeding modes, a comparative study with a simple model
09:15 **BUIZZA, R.**; PALMER, T.N.
Impact of ensemble size on ensemble prediction
09:30 **IVANOV, L.M.**; MARGOLINA, T.M.
On calculation of the probability distribution functions for statistical ensembles with the large numbers of freedom degrees
09:45 D'ANDREA, F.; VAUTARD, R.
Flow dependent parametrization of tendency error on a simplified model
10:00 TALAGRAND, O.; **VAUTARD, R.**; STRAUSS, B.
Evaluation of probabilistic prediction systems
10:15 FRISON, T.W.
Quanifying predictability with Lyapunov exponents
10:30 BREAK

Chairperson: Mullen, S.L.

11:00 **DROEGEMEIER, K.K.**; XUE, M.; ZONG, J.; HOU, D.; WANG, D.; PARK, S.K.; CARR, F.H.
The practical predictability of deep convective storms: use of real time operational tests and detailed case studies to assess the role of scale interaction in forecast uncertainty
11:15 LAHOZ, W.A.
Stratospheric predictability in the UKMO Unified Model
11:30 **IDE, K.**; GHIL, M.
Hybrid dynamic-statistical forecasting and forecast skill
11:45 **GHIL, M.**; IDE, K.
Low-frequency variability of the atmosphere and long-range forecasting (Solicited Paper)
12:15 **PERESAN, A.**; ROTWAIN, I.M.; PANZA, G.F.
Evaluation of the stability of algorithm CN with respect to randaom errors in magnitude: central Italy
12:30 **MULLEN, S.L.**; WANDISHIN, M.; BROOKS, H.E.; STENSRUD, D.J.; DOWELL III, C.A.
Quantitative precipitation forecasting: predictability limits and the use of ensemble forecasts
12:45 ABERSON, S.D.
Targeting observations to improve tropical cyclone track forecasts
13:00 END OF SUB-SESSION

NP2 Predictability & time series analysis .2 Execution and analysis of geophysical laboratory experiments

Convener: Malinowski, S.P.
Co-Convener(s): Früh, W.-G.
Monday, 20 April 1998
Lecture Room: IRIS
Chairperson: N.N.

14:00 SMITH, L.A.
Dynamic state-space reconstructions: a case study with thermally driven, rotating fluid annulus (Solicited Paper)
14:30 **STEPHEN, A.V.**; MOROZ, I.M.; READ, P.L.
POD analysis of baroclinic wave flows in the thermal rotating annulus experiment
14:45 LOVEGROVE, A.F.; **READ, P.L.**; RICHARDS, C.J.
Inertia-gravity waves in a baroclinically unstable rotating fluid
15:00 **READ, P.L.**; FRÜH, W.-G.
Flow-field and point velocity measurements in a barotropically unstable shear layer
15:15 MEINCKE, O.; EGBERS, C.
Routes into chaos in rotating fluids
15:30 SITTE, B.; EGBERS, C.
LDV-measurements on baroclinic waves
15:45 **BANAT, P.**; MALINOWSKI, S.P.
Properties of the turbulent cloud-clear air interface observed in the laboratory experiment
16:00 **MALINOWSKI, S.P.**; JACZEWSKI, A.
Investigation of the droplet concentration at the cloud-clear air interface
16:15 END OF SUB-SESSION
17:00 Opening
19:30 Reception

NP2 Predictability & time series analysis .2 Execution and analysis of geophysical laboratory experiments - Poster Session

Convener: Malinowski, S.P.
Co-Convener(s): Früh, W.-G.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: AGORA 3 - NP

NP029 BASTIN, M.E.
The effect of sloping boundaries on baroclinic instability in two related internally heated, rotating fluid systems
NP030 SHEARER, E.; **FRÜH, W.-G.**
Kelvin-Helmholtz instability in a continuously forced shear flow

NP2 Predictability & time series analysis .3 Nonlinear time series analysis

Convener: Kurths, J.
Co-Convener(s): Yiou, P.
Wednesday, 22 April 1998
Lecture Room: M2
Chairperson: Kurths, J.

08:30 PROVENZALE, A.
Potentials and limits of nonlinear time series analysis for the understanding of geophysical turbulence (Solicited Paper)
09:00 KWASNIOK, F.
Deriving stochastical dynamical models from noisy time series
09:15 DETHLOFF, K.; WEISHEIMER, A.; HANDORF, D.; RINKE, A.; KURGANSKY, M.V.; PETOUKHOV, V.; JANSEN, W.
Decadal climate variability in conceptional models of the atmosphere and the atmosphere-ocean system
09:30 **STONE, L.**; SAPARIN, P.I.; HUPPERT, A.; PRICE, C.
El Nino chaos: pronounced noise induced effects and stochastic resonance in a model of the ENSO cycle
09:45 GHIL, M.
The SSA-MTM toolkit: applications to analysis and prediction of time series (Solicited Paper)
10:15 **MCSHARRY, P.**; SMITH, L.A.
On embedding realistic data
10:30 **TIMMER, J.**; WARDINSKI, I.; SCHWARZ, U.; HASINGER, G.; KURTHS, J.
Linear and non-linear time series analysis of CYG X-1
10:45 FOURNIER, A.
Resolution of a nonlinear function of a singnal into smooth and singular or intermittent parts, using wavelet paraproduct
11:00 KIRIAN, D.G.
Research of quasiperiodic processes by a resonance method
11:15 FRISON, T.W.
Nonlinear time series analysis in phase space
11:30 **WOLF, F.**; LANGE, H.
Complexity analysis of long-term time series from the hubbard brook ecosystem study
11:45 LUNCH/12:00 Business Meetings

Chairperson: Yiou, P.

14:00 SMITH, L.A.
The irrelevance of chaos in forecasting and "tiny" data sets (Solicited Paper)
14:30 **SMITH, L.A.**; ZIEHMANN, C.; KURTHS, J.
Chaos and the (broken) bootstrap
14:45 **TSONIS, A.A.**; ROEBBER, P.J.
Using nonlinear approaches to predict predictability and transitions in the atmospheric general circulation
15:00 **MALAMUD, B.D.**; TURCOTTE, D.L.
Analysis of self-affine log-normal time series
15:15 **DAVIS, A.**; MARSHAK, A.; WISCOMBE, W.J.; CAHALAN, R.F.
A simple criterion for detecting potentially spurious multifractality in limited datasets
15:30 FRAEDRICH, K.
Low frequency variability in simple GCMs (Solicited Paper)
16:00 DUDOK DE WIT, T.
Efficient coherent noise rejection by generalized singular value decomposition
16:15 **IVANOV, L.M.**; MARGOLINA, T.M.
Spatial reconstruction of scalar fields for large ratios of the noise to reconstructing signal and unknown noise
16:30 **TRAUTH, M.H.**; SCHWARZ, U.; KURTHS, J.; HASELTON, K.; STRECKER, M.
Varved pleistocene lake sediments in NW Argentina as archives of paleo-climate dynamics: comparison of past and modern rainfall variations
16:45 MACEK, W.M.
Testing for an attractor in the solar wind
17:00 PETSCHEL-HELD, G.
Risk analysis of global change
17:15 END OF SUB-SESSION

NP2 Predictability & time series analysis
.3 Nonlinear time series analysis - Poster Session

Convener: Kurths, J.
Co-Convener(s): Yiou, P.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:30 - 19:00
Poster Area: AGORA 3 - NP

NP031 **URQUIZU, M.**; CORREIG, A.M.
Analysis of seismic dynamical systems
NP032 BUENESTADO, P.; RODRIGUEZ, R.; **SOLER, M.R.**
Objective spectral method applied to meteorological series
NP033 PALUS, M.; **NOVOTNA, D.**
Enhanced Monte Carlo SSA for detection of modes with nontrivial dynamics embedded in colored noise
NP034 BALLESTER, J.L.
Is there memory in solar activity?
NP035 MACHARASHVILI, T.; CHELIDZE, T.; JAVAKHISHVILI, Z.
Dynamics of temporal distribution of Caucasian earthquakes
NP036 NAZAREVYCH, A.V.
Spectral-temporal structure of nonlinear-parametric effects in rocks as an indicator of a geodynamic mode
NP037 IVANOV, S.S.
Statistical properties of dynamic systems: dependence on scales of resolution

NP3 Transport and mixing in geophysical flows
.1 Transport and mixing in stably stratified fluid

Convener: Staquet, C.
Tuesday, 21 April 1998
Lecture Room: M3
Chairperson: N.N.

Mixing and transport by internal gravity waves

10:00 **KANEDA, Y.**; ISHIDA, T.
Suppression of vertical diffusion in stably stratified turbulence
10:15 **GLAZMAN, R.E.**; WEICHMAN, P.B.
Oceanographic implications of wave-induced turbulent diffusion
10:30 BREAK

Chairperson: Rees, J.M.

11:00 **BOURUET-AUBERTOT, P.**; KOUDELLA, C.; STAQUET, C.; WINTERS, K.B.
Particle dispersion and mixing by breaking internal gravity waves
11:15 **DINTRANS, B.**; RIEUTORD, M.; VALDETTARO, L.
Gravito-inertial waves in a rotating stratified spherical shell
11:30 **LELONG, M.-P.**; RILEY, J.J.; DUNKERTON, T.J.
Transport associated with internal wave reflection at a sloping boundary
11:45 **MICHALLET, H.**; IVEY, G.N.
Experimental study of internal solitary waves breaking on a slope

Mixing in stably stratified turbulence

12:00 **VAN ATTA, C.W.**; KELLER, K.
Non-equilibrium osborn-cox model for ocean and atmosphere microstucture flux estimates (Solicited Paper)
12:30 BALMFORTH, N.J.; **LLEWELLYN SMITH, S.G.**; YOUNG, W.R.
Dynamics of interfaces and layers in a stratified turbulent fluid
12:45 REDONDO, J.M.
Layering in strongly stratified flows *
13:00 LUNCH

Chairperson: Lelong, M.-P.

14:00 **STIANSEN, J.E.**; SVENDSEN, H.; FINNE, K.; TVERBERG, V.
Shear generated mixing processes in Arctic and sub-Arctic fjords

14:15 **CAULFIELD, C.P.**; PELTIER, W.R.
The life cycle of a stratified shear layer
14:30 **STAQUET, C.**; KOUDELLA, C.; WINTERS, K.B.
Mixing in a stably stratified shear layer

Internal gravity waves in the atmosphere: observations and models

14:45 ETLING, D.
Dispersion in the stably stratified atmospheric boundary layer (Solicited Paper)
15:15 **AFANASYEV, YA.D.**; PELTIER, W.R.
Internal gravity wave breaking in the middle atmosphere: two- and three-dimensional numerical simulations
15:30 **EIFF, O.**; BONNETON, P.
Three-dimensional structure of breaking mountain waves
15:45 **GHEUSI, F.**; STEIN, J.
A numerical study of 3D gravity wave breaking over a 2D orography
16:00 VALENTE, M.A.
Effects of directional shear wind on gravity wave drag
16:15 **REES, J.M.**; PRICE, J.C.W.; ANDERSON, P.S.; KING, J.C.
Climatology of internal gravity waves in a stably stratified atmospheric boundary layer
16:30 **CAILLOL, P.**; ZAITLIN, V.
On the stationary spectra of weakly nonlinear internal gravity waves in 2 and 3 dimensions
16:45 **ALISSE, J.-R.**; SIDI, C.
Nongaussian probability density functions of small-scale fluctuations in the stably stratified atmosphere
17:00 END OF SUB-SESSION

NP3 Transport and mixing in geophysical flows
.1 Transport and mixing in stably stratified fluid - Poster Session

Convener: Staquet, C.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:30 - 19:00
Poster Area: AGORA 3 - NP

NP039 ALESHKOV, Y.Z.; BUKATOV, A.E.; BUKATOV, A.A.
Long internal waves of finite amplitude in the fluid with a density jump
NP040 **HERTZOG, A.**; SOUPRAYEN, C.; HAUCHECORNE, A.
Inertia-gravity waves in the lower stratopshere: observations and ray-tracing
NP041 **BONNIER, M.**; BONNETON, P.; EIFF, O.S.
Investigation of the vertical structure of the far-wake of a sphere in a stratified fluid
NP042 **CHAUMAT, L.**; BRENGUIER, J.-L.
Observations of turbulence and mixing in clouds at the centimeter scale
NP043 DOKUCHAEV, V.P.
Molecur diffusion of passive admixture in stratified flows
NP044 ZIMMERMAN, W.B.; **RAMSAY, F.J.**
Stability and rollover in double diffusive systems
NP045 **BOUCHE, V.**; SALUSTI, E.
Convective motion driven by localized sudden cooling of heating events on the surface of the sea

NP3 Transport and mixing in geophysical flows
.2 Turbulence and mixing in geophysical flows, effects of stratification and rotation, convection, effect of coherent structures, Lagrangian chaos

Convener: Redondo, J.M.
Wednesday, 22 April 1998
Lecture Room: M3
Chairperson: Provenzale, A.

1. Body forces in geophysical flows
a. Effect of rotation

09:00 **FLOR, J.-B.**; EAMES, I.
Fluid transport by coherent vortices
09:15 **AFANASYEV, YA.D.**; PELTIER, W.R.
Three-dimensional instability of anticyclonic barotropic vortices in a rotating fluid: laboratory experiments
09:30 **GREENSLADE, M.D.**; HAYNES, P.H.
Jets in fully developed beta-plane turbulence in a multi-layer model
09:45 HARLANDER, U.
Nonlinear features of Rossby wave packet propagation on the ß-plane
10:00 COULLIETTE, C.; **WIGGINS, S.**; IDE, K.
A study of Lagrangian transport in a wind driven, 3-layer, eddy-resolving general circulation model using dynamical systems theory

b. Effect of rotation and stratification

10:15 FINCHAM, A.M.
Vortex structures in stably stratified rotating fluids (Solicited Paper)
10:45 LUNCH
12:00 Business Meetings

Chairperson: Afanasyev, Y.D.

c. Entrainment and mixing models in geophysical flows

14:00 PETERSEN, O.
Large eddy simulation of entrainment in penetrative convection with and without rotation (Solicited Paper)
14:30 BROCCHINI, M.
Strong trubulence at an air-water interface
14:45 MAHJOUB, O.B.; REDONDO, J.M.
Structure functions in geophysical flows

2. Transport and mixing in the ocean and the atmosphere

15:00 VON HARDENBERG, J.; FRAEDRICH, K.; LUNKEIT, F.; PROVENZALE, A.
Transport during a storm life-cycle in a simplified GCM

15:15 **IDE, K.**; WIGGINS, S.; COULLIETTE, C.
Mixing in the midlatitude's wind-driven oceanic circulation: dynamical processes and variability
15:30 **BURCHARD, H.**; DEMIROV, E.; EIFLER, W.; CASTELLARI, S.; PINARDI, N.
Modelling convection in the Mediterranean Sea with different turbulence closure schemes
15:45 TSITVERBLIT, N.
Double-component convection driven by the different boundary conditions
16:00 BRACCO, A.; PROVENZALE, A.
Statistical properties of subsurface float trajectories in the Atlantic Ocean *
16:15 **KAGAN, B.A.**; SCHRIMPF, W.; UTKIN, K.B.
Parameterisation of the sediment stratification effect on flow dynamics
16:30 END OF SUB-SESSION

NP3 Transport and mixing in geophysical flows
.2 Turbulence and mixing in geophysical flows, effects of stratification and rotation, convection, effect of coherent structures, Lagrangian chaos - Poster Session

Convener: Redondo, J.M.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: AGORA 3 - NP
Chairperson: Fincham, A.M.

NP046 SKIBA, Y.N.
On asymptotic behaviour of a forced viscous fluid
NP047 FRAUNIE, P.
Analysis of the vertical dispersion in a river plume discharging in a microtidal sea *
NP048 LACASCE, J.H.
Projected displacement statistics in the ocean
NP049 LOPEZ, C.; HERNANDEZ-GARCIA, E.
Empirical orthogonal function analysis of altimetry data of the Algerian current: towards a low-dimensional dynamical system model
NP050 MEDINA, P.; SANCHEZ, M.A.; REDONDO, J.M.
Lift OFF of sediments in zero-mean flows *
NP051 **PETERSEN, O.**; BURCHARD, H.
Parameterization of turbulence and entrainment in penetrative convection
NP052 REDONDO, J.M.; RIDOU, M.
Convective flows in thermally non steady enclosures. The effect of rotation *
NP053 **SALAS, J.**; GARCIA-LADONA, E.; FONT, J.
Statistical analysis of the surface circulation in the Algerian current using Argos buoys
NP054 OSBALDESTIN, A.H.; **STIRLING, J.R.**
On the dynamics and patchiness of pollution in a turbulent estuarine flow

Attend the Poster Session

NP3 Transport and mixing in geophysical flows
.3 Dispersion in two-dimensional flows, mixing, anomalous diffusion, experiments, models and numerical simulations

Convener: Tabeling, P.
Monday, 20 April 1998
Lecture Room: M3
Chairperson: N.N.

09:00 CARENA, E.; PROVENZALE, A.; WEISS, J.B.
Eulerian and Lagrangian statistics in point vortex systems (Solicited Paper)
09:30 CARTWRIGHT, J.H.E.; PIRO, O.
Transport and mixing in 3D laminar flows (Solicited Paper)
10:00 Discussion
10:15 BREAK

Chairperson: N.N.

11:00 LONGO, S.; LAMBERTI, A.
Lagrangian numerical model of a binary mixture and segregation processes
11:15 **PASCAL, B.**; MOREAU, R.
An experiment on two-dimensional turbulence in a mixing layer
11:30 **HERBERT, V.**; LARCHEVEQUE, M.; STAQUET, C.
Hyperviscous dynamics of two-dimensional turbulence
11:45 BENE, J.; **LUSTFELD, H.**
Diffusion of tracer particles in 2 dimensional flows with large Reynolds numbers
12:00 **NICOLLEAU, F.**; VASSILICOS, J.C.
Kinematic simulation for stratified flows
12:15 FOURNIER, A.
Efficient representation of coherent structures by translation-invariant orthonormal wavelet analysis
12:30 MCLAUGHLIN, R.M.
Anelastic mixing: transport by weakly compressible flow
12:45 END OF SUB-SESSION
17:00 Opening
19:30 Reception

NP3 Transport and mixing in geophysical flows
.3 Dispersion in two-dimensional flows, mixing, anomalous diffusion, experiments, models and numerical simulations - Poster Session

Convener: Tabeling, P.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 3 - NP

NP055 BRACCO, A.
Transport and dispersion in the surface quasigeostrophic equations *
NP056 **CESARI, R.**; LORENZANI, S.; MAURIZI, A.; TAMPIERI, F.
Passive tracer fluxes in complex turbulent flows

NP057 **CHO, J.Y.-K.**; INGERSOLL, A.P.
The effects of Markovian random forcing and dissipation in 2-D turbulence

NP058 **TAMPIERI, F.**; PARADISI, P.; ZAULI SAJANI, S.
Computations of impurity trajectories in two-dimensional incompressible periodic flows

NP059 PALDOR, N.; **DVORKIN, Y.**
Lagrangian modelling of cross-equatorial airflow - stochastic resonance in a Hamiltonian system

NP3 Transport and mixing in geophysical flows
.4 Biological processes and mixing in the ocean (co-sponsored by OA)

Convener: Richards, K.J.
Thursday, 23 April 1998
Lecture Room: M3
Chairperson: Garcon, V.

08:30 BRINDLEY, J.
Interplay of fluid dynamics & plankton population dynamics in the ocean (Solicited Paper)

09:00 **RICHARDS, K.J.**; SPALL, S.
Eddy mixing and biological production

09:15 MORENO, P.; **HUOT, J.-P.**
The influence of phytoplankton on the mixed layer and surface heat fluxes

09:30 **VICHI, M.**; PINARDI, N.; ZAVATARELLI, .; FRASCARI, F.; BERGAMINI, C.; MATTEUCCI, G.; MARCACCIO, M.
A one-dimensional model study of the biogeochemical seasonal cycles in the Po prodelta area (northern Adriatic Sea)

09:45 **CORN, M.**; GUIEU, C.
Relations between phytoplankton and trace metals

10:00 DRANGE, H.
A model study of the effect of vertical mixing on the marine ecosystem (Solicited Paper)

10:30 BREAK

Chairperson: Drange, H.

11:00 **GARCON, V.**; OSCHLIES, A.; GUNSON, J.
The impact of mesoscale eddies on primary production in the north Atlantic Ocean: a modelling approach (Solicited Paper)

11:30 **OSCHLIES, A.**; GARCON, V.
Pathways of nutrient supply to the oligotrophic subtropical gyre: a model study

11:45 **GREGOIRE, M.**; BECKERS, J.M.; NIHOUL, J.
Coupled hydrodynamic ecosystem model of the Black Sea at basin scale. First results of a high resolution 3D interdisciplinary model

12:00 **SCHARTAU, M.**; WILLEBRAND, J.
Parameter optimization of a simple marine ecosystem model using the adjoint methods

12:15 NAPOLITANO, E.; OGUZ, T.; MALANOTTE-RIZZOLI, P.
Modelling annual plankton dynamics in the Ionian Sea (eastern Mediterranean)

12:30 **CRISPI, G.**; CRISE, A.; MOSETTI, R.; SOLIDORO, C.
Effects of advection, mixing and sinking on spatial and temporal evolution of biochemical parameters in the Mediterranean Sea

12:45 SMAOUI, H.; **OUAHSINE, A.**; SENTCHEV, A.
Numerical experiments for advection-diffusion schemes: application to larvae transport in the English Channel

13:00 END OF SUB-SESSION

* not included in the Book of Abstracts

NP3 Transport and mixing in geophysical flows
.4 Biological processes and mixing in the ocean (co-sponsored by OA) - Poster Session

Convener: Richards, K.J.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 3 - NP

NP060 **KANOSHINA, I.**; LIPS, U.; KONONEN, K.
The effect of hydrodynamics on the phytoplankton primary production and species composition at the entrance to the Gulf of Finland (Baltic Sea) in July 1996

NP061 **STOENS, A.**; MENKES, C.; BANDONNEAU, Y.; MEMERY, L.; GRIMA, N.
New production in the equatorial Pacific: a coupled dynamical/biogeochemical modelling

NP062 THOUZEAU, G.; **CHEVALIER, C.**; TEMPERVILLE, A.
Modelling of deposition/resuspension processes in the English Channel

NP063 PUGALOVA, S.S.; **RYABCHENKO, V.A.**
Modelling the phytoplankton succession in the Barents Sea

NP3 Transport and mixing in geophysical flows
.5 Transport and mixing of chemical species in the atmosphere, including urban and regional problems in the troposphere and global-scale problems in the troposphere and stratosphere (co-sponsored by OA & ST) I

Convener: Haynes, P.H.
Monday, 20 April 1998
Lecture Room: M3
Chairperson: Vautard, R.

I. Reacting flows

14:00 TEL, T.; TOROCZKAI, X.
Advection of active particles in open chaotic flows (Solicited Paper) *

14:30 **HAYNES, P.H.**; TAN, D.G.H.
An ensemble approach to predicting chemical evolution in chaotic advection flow

14:45 HEINZ, S.
Mixing and reaction in stratified flow: Langrangian PDF methods

15:00 MCKENNA, D.
Coupling between chemistry and mixing in a simple reaction diffusion system
15:15 **HONORE, C.**; VAUTARD, R.
Sensitivity of ozone photochemistry in a polluted area
15:30 Joint session ST16/NP3.05 will continue on Thursday

NP3 Transport and mixing in geophysical flows
.5 Transport and mixing of chemical species in the atmosphere, including urban and regional problems in the troposphere and global-scale problems in the troposphere and stratosphere (co-sponsored by OA & ST) II

Conveners: Haynes, P.H.; Wirth, V.
Thursday, 23 April
Lecture Room: M3
Chairperson: Waugh, D.W.

Joint session with ST16
a) Techniques such as RDF

14:00 **MCKENNA, D.**; BUJOK, O.; THOMAS, N.
Comparison of RDF with in-situ data (Solicited Paper)
14:30 **AMBAUM, M.**; BUJOK, O.
Correction for phase errors in lagrangian modelling of tracer filameters
14:45 **BITHELL, M.**; GRAY, L.J.
Isentropic and three dimensional trajectories near the tropopause
15:00 **METHVEN, J.**; HOSKINS, B.
On the advection of high resolution tracers by low resolution winds
15:15 **MARIOTTI, A.**; LEGRAS, B.; MECHOSO, C.R.
Pseudo-contour advection with surgery

b) Studies using observed/model winds

15:30 SHUCKBURGH, E.
Investigating transport across the tropopause
15:45 **BAGLIANI, M.**; FRAEDRICH, K.; VON HARDENBERG, J.; LUNKEIT, F.
Lagrangian climatology of a simplified general circulation model
16:00 **LAPEYRE, G.**; LEGRAS, B.
A criterion for the formation of filaments around the polar vortex
16:15 BRUNET, G.; GRAVEL, S.; ROCH, M.; GAUTHIER, P.; PELLERIN, S.; EK, N.; **EDOUARD, S.**
High resolution forecasts of polar stratospheric ozone using the Canadian Global Environmental Multiscale Model
16:30 END OF PART II

* not included in the Book of Abstracts

NP3 Transport and mixing in geophysical flows
.5 Transport and mixing of chemical species in the atmosphere, including urban and regional problems in the troposphere and global-scale problems in the troposphere and stratosphere (co-sponsored by OA & ST) - Poster Session

Convener: Haynes, P.H.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 3 - NP
Chairperson: Haynes, P.H.

NP065 **KOSTADINOV, I.**; GIOVANELLI, G.; RAVEGNANI, F.; EVANGELISTI, F.; AGOSTINI, P.; CUZZOLA, V.; BONASONI, P.
Stratospheric ozone, nitrogen oxide and temperature measurements at (44N, 11E) during 1996-97
NP066 **LUKASHIN, V.N.**; ISAEVA, A.B.; SEROVA, V.V.; GORDEEV, V.YU.; STEIN, R.
Aerosol studies over North Atlantic
NP071 BALIS, D.; PAPAYANNIS, A.; GALANI, E.; MARENCO, F.; SANTASECARIA, V.; ZIOMAS, I.; ZEREFOS, C.
Two years lidar aerosol measurements at Thessaloniki, Greece
NP072 LARCHEVEQUE, G.; SIMEONOV, V.; VAN DEN BERGH, H.; CALPINI, B.
The Swiss EPFL lidar in the EU WINTEX pilot study
NP073 BEDNAR, J.; BRECHLER, J.; HALENKA, T.
On the modelling of climatological characteristics of photochemical smog in Bohemian basin
NP074 **ANQUETIN, S.**; CHOLLET, J.P.
Thermal inversion impacts on the mixing properties of the low atmosphere within a deep valley
NP075 **CASTRACANE, P.**; RAO, M.P.; CASADIO, S.; CACCIANI, M.; CALISSE, P.G.; FIOCCO, G.
Observation of atmospheric boundary layer characteristics over an urban site
NP076 BAGLIANI, M.
An evaluation of the asymmetry of turbulence in the atmospheric boundary layer
NP077 **MERCIER, P.**; HOURDIN, F.; BOUCHER, O.; PHAM, M.; HAUGLUSTAINE, D.; GRANIER, C.
Greenhouse gases in the LMD-Z general circulation model
NP078 **BITHELL, M.**; PEPLER, S.J.
Adaptive parcel advection
NP078A **BUJOK, O.**; MCKENNA, D.S.
On the use of the RDF-Technique for the Interpretation of high-resolution tracer measurements in the tropopause region: a case study
NP078B **HAYNES, P.H.**; BALLUCH, M.G.
Quantification of lower stratospheric mixing processes using aircraft data
NP078C GOUGET, H.; CAMMAS, J.-P.
Stratosphere-troposphere exchange in the subtropics of the southern hemisphere: a case study from the aircraft campaign TROPOZII over Argentina in January 1991 *

NP078D SIMON, P.
PV/ozone correlations near the tropopause from ECMWF analysis of MOZAIC measurements *

NP3 Transport and mixing in geophysical flows
.5 Transport and mixing of chemical species in the atmosphere, including urban and regional problems in the troposphere and global-scale problems in the troposphere and stratosphere (co-sponsored by OA & ST) III

Conveners: Haynes, P.H.; Wirth, V.
Friday, 24 April 1998
Lecture Room: M3
Chairperson: McKenna, D.

Joint session with ST16 (continued)
c) Lower stratospheric tracer studies

08:30 WAUGH, D.W.
Seasonal variation of stirring and mixing in the lower stratosphere (Solicited Paper)
09:00 **ALFIER, R.**; PAWSON, S.; KETELSEN, K.
Fine structure of water vapour transport at the polar vortex
09:15 **LEDER, S.**; BECK, A.
The relationship between the exchange across the subtropical barrier and planetary wave activity in a global model
09:30 **GODIN, S.**; BERGERET, V.; BEKKI, S.; DAVID, C.; HAUCHECORNE, A.
Lidar aerosol measurements showing the stratified structure of the Antarctic polar votex in the spring of 1992
09:45 **HAUCHECORNE, A.**; GODIN, S.; SOUPRAYEN, C.
Meridional transport of ozone in the lower stratosphere at middle latitudes: lidar observations and simulation with a high resolution advection model
10:00 **ROZANOV, E.**; ZUBOV, V.; SCHLESINGER, M.; YANG, F.; ANDRONOVA, N.
Simulation of trace-gas distributions with the UIUC 3-D atmospheric chemical-transport model and comparison of source gas distributions with observations
10:15 **CAHILL, M.**; PLANTEVIN, P.H.; LAW, K.S.; SHALLCROSS, D.E.; CHIPPERFIELD, M.; EVANS, M.; PYLE, J.A.; GERBIG, C.; RICHER, H.; BAUGUITTE, S.; BANDY, B.; MILLS, G.; PENKETT, S.
A comparison of flight measurements from summer '97 with TOMCAT
10:30 END OF JOINT SESSION/session NP3.5 continues

NP3 Transport and mixing in geophysical flows
.5 Transport and mixing of chemical species in the atmosphere, including urban and regional problems in the troposphere and global-scale problems in the troposphere and stratosphere (co-sponsored by OA & ST) III

Convener: Haynes, P.H.
Friday, 24 April 1998
Lecture Room: M3
Chairperson: Haynes, P.H.

II. Chemical and tracer modelling

11:00 **VAUTARD, R.**; BEEKMANN, M.
The role of regional transport in urban photochemistry (Solicited Paper)
11:30 **SOULHAC, L.**; PERKINS, R.J.
Modelling the turbulent dispersion of pollutants in city streets
11:45 **BAUER S.**; LANGMANN, B.; JACOB, D.
Model hierarchy for the determination of meteorological and chemical processes
12:00 **ARMENGAUD, A.**; ANDERSEN, K.K.; GENTHON, C.
A tracer climate model based on the LMDZ AGCM
12:15 **ISNARD, O.**; PERKINS, R.J.
Dispersion through large groups of obstacles
12:30 END OF SESSION

NP3 Transport and mixing in geophysical flows
.6 Mixing in the interior of the Earth (recycling of subducted slabs) (co-sponsored by SE) I

Convener: Ricard, Y.
Monday, 20 April 1998
Lecture Room: M3
Chairperson: N.N.

15:45 **KELLOGG, L.H.**; HUNT, D.L.
Quantifying mixing in numerical models of mantle convection (Solicited Paper)
16:15 LEWIN, E.
Is there a missing link between geochemistry and geophysics of the convective mantle? (Solicited Paper)
16:45 END OF PART I
17:00 Opening
19:30 Reception

NP3 Transport and mixing in geophysical flows
.6 Mixing in the interior of the Earth (recycling of subducted slabs) (co-sponsored by SE) II

Convener: Ricard, Y.
Tuesday, 21 April 1998
Lecture Room: M3
Chairperson: N.N.

08:30 **SCHMALZL, J.**; HANSEN, U.
Mixing in vigorous, time-dependent 3D convection (Solicited Paper)
09:00 TEN, A.; PODLADCHIKOV, YU.YU.; **YUEN, D.A.**
Mixing efficiency in the upper mantle
09:15 PELTIER, W.R.; **BUTLER, S.L.**
Convective mixing controlled by phase transitions and the size distribution of chemical heterogeneities in the Earth's mantle
09:30 **O'CONNELL, R.J.**; GABLE, C.W.; MANGA, M.
Effects of toroidal flow and rheological heterogeneities on mixing in the mantle
09:45 **FERRACHAT, S.**; RICARD, Y.
Mantle mixing: influence of 3-Dimensionality and viscosity stratification
10:00 Session NP3.1 to continue

NP4 Nonlinear waves, coherent structures and natural hazards
.1 Nonlinear waves, instabilities and wave-flow interactions

Convener: Shrira, V.I.
Co-Convener(s): Ostrovsky, L.A.
Thursday, 23 April 1998
Lecture Room: IRIS
Chairperson: N.N.

Surface waves

08:30 OSBORNE, A.R.
Towards numerical resolution of the periodic inverse scattering for the Kadomtsev-Petviashvili (KP) equation
08:45 **ONORATO, M.**; OSBORNE, A.R.
Shallow water surface waves: the Whitham expansion, KDV hierarchy and lie transform
09:00 **ANNENKOV, S.YU.**; SHRIRA, V.I.
A model of sporadic wind-wave horse-shoe patterns
09:15 FRISON, T.W.
Nonlinear characteristics of ocean wave observations
09:30 VAN DUIN, C.A.
The effect of non-uniformity of a wave train on the mechanism of Benjamin-Fier instability
09:45 WASEDA, T.; TULIN, M.P.
Experimental study of the stability of deep water wave trains including wind effects
10:00 **PETTI, M.**; LONGO, S.
Swash zone measurements in a wave flume
10:15 BROCCHINI, M.
An analytical solution for the run-up of weakly 2-D solitary waves
10:30 BREAK

Chairperson: N.N.

11:00 **SAZONOV, I.**; SHRIRA, V.; CAULLIEZ, G.
Some properties of wind waves propagating on surface currents
11:15 **PAVLOV, V.**; EIFLER, W.
Some remarks on the problem of wind wave generation in a rotational flow

Internal waves and coastal dynamics

11:30 **FALQUES, A.**; CALVETE, D.; DE SWART, H.E.; DODD, N.
Sand ridges and bed-flow instabilities on the inner continental shelf
11:45 KOMAROVA, N.L.; NEWELL, A.C.
Nonlinear theory of sand patterns
12:00 **WEBER, J.E.**; DEBERNARD, J.
Mass transport induced by a slowsly moving corrugated plate in a viscous rotating fluid
12:15 **APEL, J.R.**; FINETTE, S.I.; ORR, M.H.
A new analytical model for oceanic internal soliton packets
12:30 **SEREBRYANY, A.N.**; SABININ, K.D.
Sea surface manifestations of large-amplitude internal waves during different wind conditions
12:45 LUNCH

Chairperson: N.N.

14:00 RAMIREZ, C.; RENOUARD, D.
Passing of an internal solitary wave over a step
14:15 SMALL, J.
Evidence of non-linear internal wave packet interactions at a shelf edge
14:30 **KOUDELLA, C.R.**; STAQUET, C.
Three-dimensional internal gravity waves: a high-resolution numerical study
14:45 PELINOVSKY, E.; TALIPOVA, T.; SLUNYAEV, A.; GRIMSHAW, R.; HOLLOWAY, P.
Variable-coefficient rotation-modified extended Korteweg-de Vries equation for oceanic internal waves

Rossby waves & vortices

15:00 **GREENSLADE, M.D.**; VANNESTE, J.
Numerical simulation of explosive resonant interaction of Rossby waves
15:15 **BREVDO, L.**; KIRCHGÄSSNER, K.
Structure formation in a zonal barotropic current: a treatment via the centre manifold reduction
15:30 KALADZE, T.D.; SHUKLA, P.K.
Free nonlinear vortical Rossby structures in the Earth's ionosphere
15:45 REZNIK, G.M.; BENIKOV, E.; GRIMSHAW, R.
Long-term evolution of intense barotropic vortex on beta-plane

Stability & miscellaneous

16:00 SUN, Z.L.; **MU MU**; JI, Z.Z.
Numerical investigation of the nonlinear stability and instability of quasigeostrophic motions
16:15 **MU MU**; MOZHI, T.
Nonlinear stability and instability of zonal wind in the atmosphere

16:30 BENILOV, E.
On the linear approximation of velocity and density profiles in the problem of baroclinic instability

16:45 **OSTROVSKY, L.A.**; GRIMSHAW, R.H.J.; HE, J.-M.
Terminal radiative damping of a solitary wave in rotational systems

17:00 **LE ROUX, D.Y.**; LIN, C.A.; STANIFORTH, A.
A semi-Lagrangian finite element barotroic ocean model

17:15 SHREIBER, I.
Acoustic properties surface and sediment bottm of the sea

Stand-by paper:
ROMANOVA, N.N.
Hamiltonian approach to the derivation of evolution equations for nonlinear wave-packets in unstable media

17:30 END OF SUB-SESSION

NP4 Nonlinear waves, coherent structures and natural hazards
.1 Nonlinear waves, instabilities and wave-flow interactions - Poster Session

Convener: Shrira, V.I.
Co-Convener(s): Ostrovsky, L.A.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:30 - 19:00
Poster Area: AGORA 3 - NP

NP079 MEDVEDEV, S.B.
Normal forms for shallow water equations

NP080 ANNENKOV, S.YU.; **BADULIN, S.I.**
A model of quasi-permanent three-dimensional gravity-capillary water wave patterns

NP081 **PONTIER, R.**; CHEN, G.; KHARIF, C.
Effect of air turbulence on the Benjamin-Feir instability of gravity waves on deep water

NP082 LANDRINI, M.; OSHRI, O.; WASEDA, T.; TULIN, M.P.
Long time evolution of gravity waves

NP083 CLAMOND, D.
Renormalization of shallow water gravity wave theories to allow deep water

NP084 GVELESIANI, T.; JINJIKHASHVILY, G.; CHANTURIA, A.
Application of the wave theories for waves generated in reservoirs by earthquakes

NP085 MELADZE, H.; GVELESIANI, T.; MASS, E.; CHANTURIA, A.
The flux vector splitting method for the numerical solution of shallow water equations

NP086 GVELESIANI, A.; KALADZE, T.D.
Captured by flows nonlinear Rossby waves in the Earth's ionosphere

NP087 FOURNIER, A.
Formulation of energetic triadic interactions in the orthonormal wavelet representation of fluid dynamics

NP088 KURKIN, A.A.
The Hamiltonian description of waves in a stratified rotating fluid

NP089 DROBZHEVA, YA.; KRASNOV, V.
Initial signature and vertical-oblique acoustic pule propagation model in atmosphere *

NP090 TULIN, M.P.; WASEDA, T.
Laboratory observations of wave group evolution, including breaking effects

NP4 Nonlinear waves, coherent structures and natural hazards
.2 Fluctuations, self-organization and natural hazards (co-sponsored by NH) - Poster Session

Convener: Moiseev, S.S.
Co-Convener(s): Mendes-Victor, L.A.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:30 - 19:00
Poster Area: AGORA 3 - NP
Editor: Eidelman, A.E.

NP091 CORELA, C.; MENDES-VICTOR, L.A.
NP4.2-012 A nonlinear dispersive wave model for tsunami propagation

NP092 VASSALO PEREIRA, J.
NP4.2-013 Deterministic description of a phase transition in a medium, of interacting waves

NP4 Nonlinear waves, coherent structures and natural hazards
.2 Fluctuations, self-organization and natural hazards (co-sponsored by NH)

Convener: Moiseev, S.S.
Co-Convener(s): Mendes-Victor, L.A.
Friday, 24 April 1998
Lecture Room: M1
Chairperson: Erokhin, N.S.
Editor: Eidelman, A.E.

08:45 **FRISCH, U.**; MAZZINO, A.; VERGASSOLA, M.
NP4.2-001 Intermittency for passive scalar advection (Solicited Paper)

09:15 **SERIO, M.**; BERGAMASCO, L.; ONORATO, M.; OSBORNE, A.R.
NP4.2-002 Multifractal structure of the air transmittency small scale fluctuations

09:30 EROKHIN, N.S.; MOISEEV, S.S.; PANKOV, V.M.; SMIRNOV, N.K.; ZABYSHNYI, A.I.; VOLKOV, A.M.; KHAPIN, YU.B.
NP4.2-003 Scientific problems of the space project "Precursor"

09:45 SMITH, L.A.
NP4.2-004 Towards early warning: are self-organised critical systems predictable?

10:00 KIKUCHI, H.
NP4.2-005 Uncharged particle acceleration and critical ionization flow by electric reconnection and their applications

10:15 REDONDO, J.M.; SANCHEZ, M.A.; CANTALAPIEDRA, I.R.; CASTILLA, R.
NP4.2-006 Vortical structures in stratified turbulent flows

10:30 BREAK

Chairperson: Moiseev, S.S.
Editor: Eidelman, A.E.

11:00 MOISEEV, S.S.
NP4.2-007 Generation of structures in geophysical and geo-like media without a symmetry center (Solicited Paper)
11:30 CHKHETIANI, O.G.; **GOLBRAIKH, E.**; MOISEEV, S.S.
NP4.2-008 Mechanisms of mean helicity generation and its role in crisis atmospheric situations
11:45 KURGANSKY, M.V.
NP4.2-009 Vorticity genesis in the moist atmosphere
12:00 **EIDELMAN, A.**; BRANOVER, H.
NP4.2-010 Estimation of helicity parameters in WIND spectra and in laboratory experiments
12:15 **EROKHIN, N.S.**; MOISEEV, S.S.; SHARKOV, E.A.
NP4.2-011 On cells merging resulting to a large eddy forming
12:30 CORELA, C.; MENDES-VICTOR, L.A.
NP4.2-012 A nonlinear dispersive wave model for tsunami propagation (Oral + Poster)
12:45 MOISEEV, S.S.; MENDES-VICTOR, L.A.
Concluding remarks
13:00 END OF SUB-SESSION

NP4 Nonlinear waves, coherent structures and natural hazards
.3 Shallow water experiments as models of geophysical and astrophysical flows

Convener: Sommeria, J.
Co-Convener(s): Nezlin, M.V.
Monday, 20 April 1998
Lecture Room: IRIS
Co-sponsored by: INTAS
Chairperson: Nezlin, M.V.

08:30 DOLZHANSKII, F.V.
Transverse structure of Q2D geophysical and magnetodynamical flows (Solicited Paper)
09:00 VAN DE KONIJNENBERG, J.A.; NIELSEN, A.H.; RASMUSSEN, J.J.; STENUM, B.
Influence of the beta effect on shear-flow instability
09:15 DANILOV, S.; **SAZONOV, I.A.**
Interaction of zonal flow with topography. Laboratory and numerical simulations
09:30 **STUHNE, G.R.**; PELTIER, W.R.
Shallow water experiments with a spherical icosahedron-based multigrid model
09:45 **IACONO, R.**; STRUGLIA, M.V.; RONCHI, C.; NICASTRO, S.
Large scale dynamics of freely decaying shallow-water turbulence on a sphere
10:00 SUTYRIN, G.G.
Physical mechanism of an intense vortex motion (Solicited Paper)
10:30 BREAK

Chairperson: Rasmussen, A.H.

11:00 **NEZLIN, M.**; RYLOV, A.; TITISHOV, K.; CHERNIKOV, G.
Meridional drift of the Rossby vortices
11:15 BEN JELLOUL, M.; **STEGNER, A.**
Large-scale vortices: stability and departure from geostrophy
11:30 SNEZHKIN, E.; **SOMMERIA, J.**
Generation of vortex patterns and spiral waves in a shallow water annular shear
11:45 SCHÄR, C.
Flow past isolated topography: a comparison between continously stratified and shallow-water dynamics
12:00 BRACCO, A.; PROVENZALE, A.; SPIEGEL, E.A.
Spotted disks
12:15 **KOVALENKO, I.G.**; LEVY, V.V.; LUKIN, D.V.
Quasi-two-dimensional modelling of thin astrophysical gaseous disks
12:30 KOVALENKO, I.G.; **LEVY, V.V.**; MUSTSEVOJ, V.V.
Numerical simulation of instability in rotating shea layer in galactic disks and shallow water experiments
12:45 **NOSOV, M.A.**; LEVIN, B.W.; RYKUNOV, L.N.
Modelling of the mechanism of ocean surface cooling by underwater earthquake
13:00 END OF SUB-SESSION
17:00 Opening
19:30 Reception

NP4 Nonlinear waves, coherent structures and natural hazards
.3 Shallow water experiments as models of geophysical and astrophysical flows - Poster Session

Convener: Sommeria, J.
Co-Convener(s): Nezlin, M.V.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: AGORA 3 - NP
Co-Sponsored by: INTAS

NP093 HANNACHI, A.
Assimilation by periodic updating in a simple Hamiltonian system and application to a simplified shallow water model
NP094 CHERNIKOV, G.P.; **NEZLING, M.V.**
On the mechanism of the Rossby vortex meridional drift
NP095 TOMASINI, M.
A spectral domain decomposition method to resolve a strong localized shear layer
NP096 VAN DE KONIJNENBERG, J.A.; NIELSEN, A.H.; RASMUSSEN, J.J.; STENUM, B.
Particle tracing in a circular shear layer
NP097 BASTIN, M.E.
A laboratory study on the structure and dynamics of baroclinic vortices on a polar β-plane

Free Subscription

to *Nonlinear Processes in Geophysics* for ON-SITE registrants. Please contact the EGS Office before 31 May 1998.

NP5 Vortex dynamics - Poster Session

Convener: Zeitlin, V.
Co-Convener(s): Dritschel, D.G.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: AGORA 3 - NP

NP098 DAWAI, T.; PAVLOV, V.
Dynamics of point-vortex structures in a time-dependent coastal (river) 2D-flow

NP099 **GONCHAROV, V.P.**; PAVLOV, V.I.
Trajectories of vortices emitted into river Mouth

NP101 **POTYLITSIN, P.G.**; PELTIER, W.R.
Three-dimensional instabilities of columnar vortices on the F-plane

NP102 FOURNIER, A.
Triadic interaction of observed atmospheric blocking- and cyclonic-scale vortices in the orthonormal wavelet representation

NP5 Vortex dynamics

Convener: Zeitlin, V.
Co-Convener(s): Dritschel, D.G.
Friday, 24 April 1998
Lecture Room: IRIS
Chairperson: N.N.

08:30 VON HARDENBERG, J.; PROVENZALE, A.; MCWILLIAMS, J.C.; SHCHEPETKIN, A.; WEISS, J.B.
Vortex merging in quasigeostrophic flows: a Lagrangian view

08:45 BRACCO, A.; MURANTE, G.; PROVENZALE, A.; MCWILLIAMS, J.C.; WEISS, J.B.
Vortex statistics in two-dimensional turbulence

09:00 CHAVANIS, P.H.
Systematic drift experienced by a point vortex in 2D turbulence

09:15 VALLIS, G.K.; OETZEL, K.
Vortices in the enstrophy inertial range: a phenomenological theory

09:30 **DANILOV, S.**; DOLZHANSKII, F.V.
Upscale energy transfer in quasi-two-dimensional turbulence with bottom friction

09:45 **NAZARENKO, S.**; DUBRULLE, B.; LAVAL, J.-P.
Non-local 2D turbulence: a two fluid approach

10:00 **CAILLOL, P.**; LEGRAS, B.; DRITSCHEL, D.G.
Erosion of a distributed vortex by a growing shear

10:15 VELASCO FUENTES, O.U.
Evolution of a lamb quadrupolar vortex

10:30 BREAK

Chairperson: N.N.

11:00 LEBLANC, S.
Hyperbolic instability in rotationg dipoles

11:15 **CARTON,X.**; CORREARD, S.
Tripolar vortices in stratified geostrophic flows

11:30 **ROBINS, R.E.**; DELISI, D.P.
Numerical simulation of nonlinear instabilities of counter-rotating vortex pairs in stratified and unstratified fluid

11:45 **DANILOV, S.**; GRYANIK, V.; OLBERS, D.
Lateral spreading of strip-shaped convective region as derived from a two-layer heton model

12:00 DORONINA, T.; **GRYANIK, V.**; OLBERS, D.; WARNCKE, T.
A 3-D heton mechanism of lateral spreading in a stratified rotating fluid

12:15 VERKLEY, W.T.M.
Salmon's hamiltonian approach to balanced flow applied to a one-layer isentropic model on a sphere

12:30 HOLM, D.D.; **ZEITLIN, V.**
Hamilton's principle for quasigeostrophic motion

12:45 **STEGNER, A.**; DRITSCHEL, D.G.
Numerical investigation on the stability of isolated vortices beyond the quasi-geostrophic description

13:00 LUNCH

Chairperson: N.N.

14:00 **BEN JELLOUL, M.**; ZEITLIN, V.
Stability of large-scale vortices: from shallow-water to frontal dynamics

14:15 **KUO, A.**; POLVANI, L.
A direct example of wave-vortex interaction in rotating shallow water

14:30 NEVEN, E.C.
Balanced models. Part I: theory

14:45 NEVEN, E.C.
Balanced models. Part II: numerics

15:00 **POLVANI, L.**; PLUMB, R.A.; DRITSCHEL, D.G.
The breaking of Rossby waves at the bottom of the stratospheric polar vortex

15:15 **BRUNET, G.**; MONTGOMERY, M.
Rossby wave dynamics on smooth circular vortices: theory and appllication to the polar vortex

15:30 BREAK

Chairperson: N.N.

16:00 HSU, C.J.; **PLUMB, R.A.**
Forced divergent anticyclones and the Monsoon vortex

16:15 **VANDERMEIRSCH, F.**; CARTON, X.J.; MOREL, Y.G.
Interaction between a coherent eddy and a thin zonal ocean jet using a two-and-a-half-layer quasi-geostrophic model

16:30 **SOKOLOVSKIY, M.**; VERRON, J.
Interactions between finite-core hetons

16:45 **AIKI, H.**; YAMAGATA, T.
Regular formation of eddies in the intermediate layer

17:00 SALUSTI, E.; **SERRAVALL, R.**
On the ertel and impermeability theorems for slightly viscous currents, with oceanographic applications

17:15 **SERRAVALL, R.**; CARNEVALE, G.; ORLANDI, P.
Coastal current bifurcations due to topography: sensitivity to variations of the vorticity profile of the coastal current

17:30 **SERRAVALL, R.**; ZAVALA-SANSON, L.; VAN HEIJST, G.J.F.
Experiments on the bifurcation of a coastal current in presence of a topographic slope

17:45 JOHNSON, E.R.
Beach vortices

18:00 ZYRYANOV, V.N.
On the problem of a current's periodical structure in the vicinity of seamounts in a tidal sea

18:15 END OF SESSION

Natural Hazards

NH1 Extreme events in the sea and near shore and coastal hazards .1 Sea surges and storms (co-sponsored by NP)

Convener: Osborne, A.R.
Co-Convener(s): Tinti, S.
Tuesday, 21 April 1998
Lecture Room: R6
Chairperson: N.N.

08:30 **CAVALERI, L.**; BERTOTTI, L.
General aspects of modelling, forecasting and analyzing wind-wave fields and sea level rising
08:45 CAVALERI, L.; **BERTOTTI, L.**
Critical considerations on wind climatology from different data sources
09:00 OSBORNE, A.R.; **ONORATO, M.**; SERIO, M.; BERGAMASCO, L.; PETTI, M.
Search for higher order non linear effects in shallow water in a wave tank facility
09:15 FERREIRA, E.; DIAS, J.A.
Prediction of coastal erosion and shoreline retreat associated to "mean" and "centenary" storms at the Portuguese coast
09:30 **OSBORNE, A.R.**; ONORATO, M.; SERIO, M.; BERGAMASCO, L.
Inverse scattering transform I: nonlinear Fourier analysis with cnoidal wave basis functions
09:45 **OSBORNE, A.R.**; ONORATO, M.; SERIO, M.; BERGAMASCO, L.; CAVALERI, L.
Inverse scattering transform II: nonlinear Fourier analysis of Adriatic Sea surface wave data
10:00 SEREBRYANY, A.N.
Internal waves of extreme amplitudes in the ocean
10:15 SOBOLEV, YA.P.; **MIKHAILOV, YU.M.**
Typhoons in Caribbean region registered on satellites in VLF band
10:30 PELINOVSKY, E.; KIT, E.
Cross-shore dynamics of surf zone affected by storms
10:45 END OF SUB-SESSION

NH1 Extreme events in the sea and near shore and coastal hazards .1 Sea surges and storms (co-sponsored by NP) - Poster Session

Convener: Osborne, A.R.
Co-Convener(s): Tinti, S.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: RHODES - NH

NH023 PUGLIESE CARRATELLI, E.; DODD, N.; GIARRUSSO, C.C.; SPULSI, G.
Wave hazard mapping
NH024 **DIAS, J.M.**; LOPES, J.F.; DEKEYSER, I.
Study of a storm surge event in Ria de Aveiro, Portugal
NH025 GIMENO, L.; **RUA, A.**; DOCAMPO, C.; VILAR, P.; TEJEIRO, I.
Extreme wave events producing shipwrecks in the coast of Galicia (Spain)
NH026 CALINI, A.; **SCHOBER, C.M.**
Chaotic dynamics for symmetry-breaking perturbations of integrable equations

NH1 Extreme events in the sea and near shore and coastal hazards .2 Submarine landsliding

Convener: Heinrich, P.
Co-Convener(s): Eva, C.
Monday, 20 April 1998
Lecture Room: STUDIO
Chairperson: N.N.

11:00 **HEINRICH, PH.**; SABATIER, P.C.; RZADKIEWICZ, S.
The landslide tsunami of October 16, 1979, Nice, France
11:20 BOURILLET, J.F.; HEINRICH, P.; **RZADKIEWICZ, S.**; SAVOYE, B.
Numerical modelling of a submarine avalanche: the 1979 Nice event (French Riviera)
11:40 PELINOVSKY, E.; DOLINA, I.
Simplified theory of the surface and internal wave generation by the submarine landslide
12:00 **RIHM, R.**; KRASTEL, S.; JACOBS, C.; SCHMINCKE, H.-U.; ALIBES, B.; ROSENKRANZ, C.
Debris avalanches identified on the flank of all Canary Islands
12:20 **THEILEN, FR.**; MÜLLER, CH.; RIEDEL, M.
Submarine landslides on the flanks of the Canary Islands
12:40 END OF SUB-SESSION
17:00 Opening
19:30 Reception

NH1 Extreme events in the sea and near shore and coastal hazards .3 Tsunamis

Convener: Piatanesi, A.
Co-Convener(s): Baptista, M.A.
Tuesday, 21 April 1998
Lecture Room: R6
Chairpersons: Piatanesi, A.; Baptista, A.
Editors: Piatanesi, A.; Heinrich, Ph.; Tinti, S.

11:00 ANDRADE, C.; MIRANDA, J.M.; FREITAS, M.C.;
NH1.3-001 BAPTISTA, M.A.; CACHCO, M.; MUNHA, J.M.; SILVA, P.
Use of magnetic susceptibility methods for the identification of tsunami deposits in the Tagus estuary
11:15 PERISSORATIS, C.; **PAPADOPOULOS, G.**
NH1.3-002 Sediment slumping in the south Aegean Sea and the case history of the 1956 tsunami
11:30 **TINTI, S.**; BORTOLUCCI, E.; PIATANESI, A.
NH1.3-003 Identification of the source fault of the 1908 Messina earthquake through tsunami modelling, is it a possible task?

11:45 **TINTI, S.**; ROMAGNOLI, C.; BORTOLUCCI, E.
NH1.3-004 Modelling a possible holocene landslide-induced tsunami at Stromboli volcano, Italy
12:00 **HEINRICH, PH.**; IHLME, P.; SCHINDELE, F.;
NH1.3-005 GUIBOURG, S.; ROCHE, R.
Numerical modelling of the 1996 Peruvian tsunami
12:15 **PIATANESI, A.**; HEINRICH, PH.; AVOUAC,
NH1.3-006 J.PH.; SCHINDELE, F.; TINTI, S.
Numerical simulations of the October 4, 1994 Shikotan (Kuril Islands) tsunami
12:30 PELINOVSKY, E.; GOLIN'KO, V.; OSIPENKO, N.
NH1.3-007 Runup of tsunami waves on gentle beaches in a basin of a complex topography
12:45 MARAMAI, A.; TINTI, S.; **PISCINI, A.**
NH1.3-008 The "pilot" Italian monitoring and alarm system for the Calabrian-Sicilian tsunamis: state of the art
13:00 NOSOV, M.A.
NH1.3-009 The tsunami generation as a process running in the compressible fluid
13:15 END OF SUB-SESSION

NH1 Extreme events in the sea and near shore and coastal hazards
.3 Tsunamis - Poster Session

Convener: Piatanesi, A.
Co-Convener(s): Baptista M.A.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: RHODES - NH
Editors: Piatanesi, A.; Heinrich, Ph.; Tinti, S.

NH027 MÖRNER, N.-A.
NH1.3-010 Paleo-tsunamis in northwestern Europe
NH028 **HILLS, J.G.**; GODA, M.P.; MADER, C.L.;
NH1.3-011 WARREN, M.S.
Tsunami from asteroid and comet impacts: the vulnerability of Europe

NH2 Meteorological and hydrological hazards (co-sponsored by HS)
.1 Uncertainty assessment in meteo-hydrologic warning

Convener: Todini, E.
Co-Convener(s): Castelli, F.
Monday, 20 April 1998
Lecture Room: STUDIO
Chairperson: N.N.

14:00 **STORTI, G.**; FURCOLO, P.; VILLANI, P.
Uncertainty assessment of extreme rainfall forecast
14:20 LANGSRUD, O.; FRIGESSI, A.; HISDAL, H.; HOST, G.; SCHJODT-OSMO, O.; **SKAUGEN, T.**
A statistical method for describing uncertainty in flood forecasts from a hydrological rainfall-runoff model based on meteorological forecasts
14:40 **BONGIOANNINI CERLINI, P.**; MELCHIORRE, G.; TIBALDI, S.; TODINI, E.
Combining limited area models quantitative precipitation forecasts with ground measurements
15:00 GARROTE, L.; **MOSQUERA, J.C.**
Uncertainty propagation in rainfall-runoff models
15:20 **LANZA, L.**; LA BARBERA, P.
Downscaling of rainfall predictions and uncertainty in the associated flood effects at the ground
15:40 **ONOF, C.**; MACKAY, N.; CHANDLER, R.E.; WHEATER, H.S.
A Bayesian approch to rainfall disaggregation
16:00 MELLOR, D.; **O'CONNELL, P.E.**
A stochastic approach to space-time rainfall forecasting
16:20 END OF SUB-SESSION
17:00 Opening
19:30 Reception

NH2 Meteorological and hydrological hazards (co-sponsored by HS)
.2 Prediction of hazardous events of meteorological origin

Convener: Tibaldi, S.
Co-Convener(s): Alonso, S.
Tuesday, 21 April 1998
Lecture Room: STUDIO
Chairperson: Todini, E.

09:00 **HOMAR, V.**; TUDURI, E.; ROMERO, R.; RAMIS, C.; ALONSO, S.
Synoptic and mesoscale diagnosis of a hailstorm situation in eastern Spain
09:15 TESCARO, N.; SACCHETTI, D.; TROVATORE, E.
Study on the role played by a minor mountain chain in trigging deep convection
09:30 **CACCIAMANI, C.**; CESARI, D.; GRAZZINI, F.; PACCAGNELLA, T.; PANTONE, M.
Mesoscale data assimilation of surface and upper air observations in intense precipitation events
09:45 **MINGUZZI, E.**; PACCAGNELLA, T.
Numerical simulation of heavy precipitation events using two different vertical coordinate systems
10:00 **STEIN, J.**; HEREIL, P.; ASENCIO, N.
Numerical simulations of the Vaison la Romaine flash flood
10:15 SACCHETTI, D.; TESCARO, N.; TROVATORE, E.
Heavy precipitation quantitative forecast: a comparison between measurements and limited area models outputs
10:30 BREAK

Chairperson: Alonso, S.

11:00 REALE, O.
Developing versus non-developing convective vortices into "hurricane-like" cyclones over the Mediterranean Sea
11:15 **TODINI, E.**; VIGNOLI, R.
Operational use of real-time flood forecasting
11:30 FERRARIS, L.; **ROMAIRONE, A.**; SICCARDI, F.
From flood forecasting to regional warning
11:45 **GUILBAUD, S.**; OBLED, CH.
Use of the reanalysed dataset of the NECP/NCAR to improve daily quantitative precipitation forecast by an analogue technique
12:00 BENVENUTO, F.; MARANI, A.; **SILVESTRI, S.**
Neural networks for data quality control
12:15 **DATIN, R.**; GUILBAUD, S.; OBLED, CH.
Using probabilistics distribution in a real time flash flood forecasting system
12:30 END OF SUB-SESSION

NH2 Meteorological and hydrological hazards (co-sponsored by HS) .2 Prediction of hazardous events of meteorological origin - Poster Session

Convener: Tibaldi, S.
Co-Convener(s): Alonso, S.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: RHODES - NH

NH001 **MARCHESI, S.**; MORELLI, S.; STORTINI, M.
Numerical simulations of intense precipitation events using the ETA model

NH002 **GARCIA-RUIZ, J.M.**; WHITE, S.M.; BORDONABA, A.P.; MORENO, A.
Uncertainty assessment in the prediction of extreme rainfall events: an example from the central Spanish Pyrenees

NH003 **CASSARDO, C.**; GUO-YUE, N.; MIN-WEI, Q.; LONGHETTO, A.
Simulation of a severe weather episode in Piedmont (3-5 November 1994) using the coupled model RAMS-LSPM

NH004 **CASSARDO, C.**; GUO-YUE, N.; MIN-WEI, Q.; LONGHETTO, A.
Sensitivity experiments on the response of land surface with the coupled model RAMS-LSPM

NH005 **GIBERGANS BAGUENA, J.**; LLASAT, M.-C.
The use of artificial neural networks over thermodynamic data for extreme rainfall events classification and forecasting

NH2 Meteorological and hydrological hazards (co-sponsored by HS) .3 Flood hazards and flood risk: regional analysis of extremes (co-sponsored by OA)

Convener: Bois, P.
Co-Convener(s): Oancea, V.
Wednesday, 22 April 1998
Lecture Room: STUDIO
Chairperson: N.N.

08:30 **FURCOLO, P.**; ROSSI, F.; VILLANI, P.
Regional geostatistical analysis of very extreme rainfall and floods

08:45 BONI, G.; **CAVALLO, A.**; SICCARDI, F.
Regional estimation of high intensity short duration rainfall events

09:00 FERRARI, E.
Comparison of flood frequency models based on extreme rainfall analysis

09:15 **VERSIANI, B.R.**; NAGHETTINI, M.C.; BOIS, P.
Regionalization of the extreme annual rainfall using the two-component extreme value model: discussion and application

09:30 **GOTTSCHALK, L.**; WEINGARTNER, R.
Scaling of regional floods - an L-moments approach

09:45 CASPARY, H.J.
Regional increase of winter floods in southwest Germany caused by atmospheric circulation changes

10:00 **CAMERON, D.S.**; BEVEN, K.J.; BLAZKOVA, S.; NADEN, P.
A methodology for the estimation of the impacts of climate change upon flood frequency (with uncertainty)

10:15 END OF SUB-SESSION

10:30 Session NH2.04 Continue

NH2 Meteorological and hydrological hazards (co-sponsored by HS) .3 Flood hazards and flood risk: regional analysis of extremes (co-sponsored by OA) - Poster Session

Convener: Bois, P.
Co-Convener(s): Oancea, V.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:00 - 19:00
Poster Area: RHODES - NH

NH006 **ARNAUD, P.**; LAVABRE, J.
Flood predetermination model based on hourly rainfalls stochastic generation

NH007 WYZGA, B.
The frequency of low magnitude floods: a study of the reliability of the annual maximum series method

NH008 CHITALADZE, D.; KHVEDELIDZE, Z.
The influence of the local catastrophical phenomena in the atmosphere

NH009 GIMENO, L.; **RUA, A.**; BLANCO, M.; VIDUEIRA, D.
Analysis of the meteorological patterns producing flash flood in the Iberian Peninsula

NH010 BODRI, L.; **CERMAK, V.**
Last year summer floods in Moravia: what is the future?

NH011 MOSAEDI, A.
Increasing flooding risk considering sedimentation in the reservoir

NH2 Meteorological and hydrological hazards (co-sponsored by HS) .4 Modelling and flood mapping in rural and urban areas

Convener: Oberlin, G.
Co-Convener(s): Roth, G.
Wednesday, 22 April 1998
Lecture Room: STUDIO
Co-sponsored by: EC/DG XII/Natural Hazard Section, CEMAGREF
Chairperson: Oberlin, G.

10:30 CASALE, R.
Some key questions to scientists for a sustainable flood risk management (Solicited Paper)

11:00 **THOMA, C.**; KULL, D.; NAE, F.
Estimation of flood prone areas in a river plain based on conventional and laser-scan developed digital elevation models (DEM)

11:15 **GENDREAU, N.**; FARISSIER, P.
Mapping flood plains for a better river management

11:30 **PUECH, C.**; RACLOT, D.
Using GIS and aerial photographs to determine the water levels during flood

* not included in the Book of Abstracts

11:45 **KULL, D.**; THOMA, C.; NAEF, F.
The effects of floodplains on floodwaves: an analysis and comparison of different modelling tools
12:00 LUNCH
12:00 Business Meetings

Chairperson: Roth, G.

14:00 HORRITT, M.S.
Flood model validation using SAR imagery
14:15 BRILLY, M.
Flood plain zoning on headwater
14:30 SICCARDI, F.
Urban development and flood hazard
14:45 CORRAL ALEXANDRI, C.; SEMPERE TORRES, D.; RASO QUINTANA, J.; MALGRAT BREGOLAT, P.
Use of weather radar for the monitoring of combined sewer overflows in Barcelona area
15:00 MENDICINO, G.; VERSACE, P.
An integrated system for monitoring and emergency management of floods
15:15 BONI, G.; CAVALLO, A.; FERRARIS, L.; GOLLO, P.; **ROMAIRONE, A.**; VERSACE, C.
The experience of the Liguria region in the extreme events management
15:30 ADLER, M.-J.; CORBUS, C.
Modelling the maximum probable flood in a large Romanian river
15:45 **LLASAT, M.-C.**; MONTES, J.-M.
Convective rainfall mapping and their relationship with floods in Catalonia (Spain)
16:00 **LAMB, R.**; CALVER, A.
Effects of rainfall data quality on flood frequencies in simulated streamflow
16:15 **LAIME, S.**; DAUTREBANDE, S.
Model and spatial database to assess design peak flow rates in the Walloon region (Belgium)
16:30 BOVO, S.; ROSSINO, M.; RAVA, M.
The natural risk situation hall (Oral + Video)
16:45 STELLING, G.S.; KERNKAMP, H.W.J.; **LAGUZZI, M.M.**
Delft flooding system: two-dimensional hydrodynamic flooding simulation. A powerful tool for landscape planning and risk evaluation (Oral + Video)
17:00 END OF SESSION

Video presentations: Wednesday, 17.30-19.00 in the poster area

NH2 Meteorological and hydrological hazards (co-sponsored by HS) .4 Modelling and flood mapping in rural and urban areas - Poster Session

Convener: Oberlin, G.
Co-Convener(s): Roth, G.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:30 - 19:00
Poster Area: RHODES - NH
Co-sponsored by: EC/DG XII/Natural Hazard Section, CEMAGREF

NH012 PAGLIARA, S.; MENEGUZZO, F.
Inundation model for floodplain analysis

NH013 **BARBERO, S.**; GIAMPANI, C.; RAMASCO, M.
Mapping of flood plains, the case of the Sesia river

NH014 ZACHARIAS, I.Z.; SKOULIKIDIS, N.TH.
The flooding problem of Sperchios river basin (Greece). A study, using the numerical model MIKE 11

NH015 LAMB, R.
Calibration of a rainfall-runoff model used in flood frequency estimation

NH2 Meteorological and hydrological hazards (co-sponsored by HS) .5 Shallow landslides and rainfall triggering - Poster Session

Convener: Sorriso-Valvo, M.
Co-Convener(s): Versace, P.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Wednesday, 17:30 - 19:00
Poster Area: RHODES - NH
Co-sponsored by: CNR, Universita della Calabria
Chairperson: Evans, S.G.
Editors: Sorriso-Valvo, M., Versace, P.

NH016 **VAN BEEK, L.P.H.**; CAMMERAAT, L.H.
NH2.5-012 The effect of land abandonment on soil water redistribution and preferential flowpaths on shallow landslide initiation

NH017 CHOWDHURY, R.N.; FLENTJE, P.
NH2.5-013 Hazard assessment for rainfall-triggered landslides

NH018 **RULLI, M.C.**; MENDUNI, G.; ROSSO, R.
NH2.5-014 Hydrologic thresholds for shallow landslides in mountain watershed: a spatially distributed simulation analysis

NH019 GULLA, G.
NH2.5-015 Modelling and trigger mechanisms of soil slips

NH020 PRESTON, N.J.
NH2.5-016 Feedback effects of rainfall-triggered shallow landsliding

NH021 GUERRICCHIO, A.; PONTE, M.; ZIMMARO, S.
NH2.5-017 A semi-quantitative approach, by means of the Hudson's matric, to the interaction of the parameters influencing the debris-flow of the 1996 January in Gimigliano locality (Calabria region) *

NH2 Meteorological and hydrological hazards (co-sponsored by HS) .5 Shallow landslides and rainfall triggering

Convener: Sorriso-Valvo, M.
Co-Convener(s): Versace, P.
Thursday, 23 April 1998
Lecture Room: STUDIO
Co-sponsored by: CNR, Universita della Calabria
Chairperson: Evans, S.G.
Editors: Sorriso-Valvo, M., Versace, P.

14:00 ALFONSI, P.; **DURVILLE, J.-L.**
NH2.5-001 Rockfalls on the N1 highway in La Réunion Island (France): hazard evaluation from rainfall

14:15 **WACHS, D.**; WUST, G.H.
NH2.5-002 The effect of rainfall on landslide triggering in northern Israel: an example of slope instability in an active seismic environment
14:30 **STEMBERK, J.**; RYBAO, J.; SUCHY, J.
NH2.5-003 Landslides triggered by the heavy rainfall on July 1997 in the Czech Republic
14:45 FOCARDI, A.; FOCARDI, P.; VANNOCCI, P.
NH2.5-004 Debris flow which occurred in the Apuan Alps (Tuscany-Italy) during the rainfall event of 19th June 1996
15:00 EVANS, S.G.; HUNGR, O.
NH2.5-005 Rainfall-triggered debris avalanches in the mountains of British Columbia, Canada
15:15 **CROZIER. M.J.**; PRESTON, N.J.; BROOKS, S.
NH2.5-006 Event-induced changes to landslide triggering thresholds
15:30 GLADE, T.
NH2.5-007 Models of antedecent rainfall and soil water status applied to different regions in New Zealand
15:45 VERSACE, P.; IRITANO, G.; SIRANGELO, B.
NH2.5-008 Return period associated to rainfall threshold for landslide triggering
16:00 **BORGA, M.**; FRANK, E.; DALLA FONTANA, G.
NH2.5-009 Analysis of topographic control on shallow landsliding using a quasi-dynamic wetness
16:15 **BROOKS, S.**; CROZIER, M.; PRESTON, N.
NH2.5-010 Regolith evolution and the control of shallow translational hillslope failure: use of a 2-dimensional coupled soil hydrology-slope stability model
16:30 DI GREGORIO, S.; RONGO, R.;
NH2.5-011 **SORRISO-VALVO, M.**; SPATARO, W.
A cellular automata model of through flow in a porous soil for shallow landslide forecasting
16:45 **VAN BEEK, L.P.H.**; CAMMERAAT, L.H.
NH2.5-012 The effect of land abandonment on soil water redistribution and preferential flowpaths on shallow landslide initiation (Poster)
16:50 CHOWDHURY, R.N.; FLENTJE, P.
NH2.5-013 Hazard assessment for rainfall-triggered landslides (Poster)
16:55 **RULLI, M.C.**; MENDUNI, G.; ROSSO, R.
NH2.5-014 Hydrologic thresholds for shallow landslides in mountain watershed: a spatially distributed simulation analysis (Poster)
17:00 GULLA, G.
NH2.5-015 Modelling and trigger mechanisms of soil slips (Poster)
17:05 PRESTON, N.J.
NH2.5-016 Feedback effects of rainfall-triggered shallow landsliding (Poster)
17:10 GUERRICCHIO, A.; PONTE, M.; ZIMMARO, S.
NH2.5-017 A semi-quantitative approach, by means of the Hudson's matric, to the interaction of the parameters influencing the debris-flow of the 1996 January in Gimigliano locality (Calabria region) * (Poster)
17:15 END OF SESSION

NH3 Earthquake risk mitigation (co-sponsored by SE)

.1 Models and methods in seismic hazard assessment

Convener: Tsapanos, T.M.
Co-Convener(s): Christova, C.V.
Monday, 20 April 1998
Lecture Room: R6
Chairperson: N.N.

09:00 WIEMER, S.; **WYSS, M.**
b-values for estimating recurrence times: average or asperity values? (Solicited Paper)
09:30 **VACCARI, F.**; CAZZARO, R.; PANZA, G.F.
From quantitative seismic zoning to the definition of correlation relations between ground motion parameters and macroseismic intensities
09:45 TSAPANOS, T.M.
A homogeneous Markov model as a pattern for earthquake recurrence in South America
10:00 ZORAN, M.
An integrated system for seismic risk assessment of Vrancea region - Romania
10:15 **MAIN, I.**; IRIVING, D.; MUSSON, R.
Seismotectonic constraints on the maximum credible magnetude using the gamma distribution
10:30 BREAK

Chairperson: Afilhado, A.

11:00 SHABALIN, N.YA.; BOROVSKY, M.YA.; TROFIMOV, V.A.; LAUBENBAKH, E.; **MELTCHOUK, B.**
Methods for atmo-radiogeochemical monitoring of manifestations of seismo-tectonic hazards
11:15 DERGACHEV, A.A.; FILINA, A.G.; MUCHNAYA, V.I.
Natural and technogenic seismicity aspects for Kuznetsk basin of Altay-Sayan folded region
11:30 OGATA, Y.
Modelling of aftershocks and relative quiescence as a precursor to a large earthquake (Solicited Paper) *
12:00 MÖRNER, N.-A.
Swedish paleoseismicity and varve dating
12:15 **QIN, C.Y.**; PAPADIMITRIOU, E.E.; PAPAZACHOS, B.C.; KARAKAISIS, G.F.
Time dependent seismicity in China
12:30 PEREZ, O.J.
Revised world seismicity catalog (1950-1997) for strong (Ms $\geq$ 6) shallow (h $\leq$ 70 km) earthquakes
12:45 RADULIAN, M.; MANDRESCU, N.; VACCARI, F.; PANZA, G.F.
Deterministic seismic hazard assessment of Romania
13:00 DRENNOV, A.F.
Experimental determination of resonance frequencies of loose sedimentary layer
13:15 END OF SUB-SESSION
17:00 Opening/19:30 Reception

NH

NH3 Earthquake risk mitigation (co-sponsored by SE)
.1 Models and methods in seismic hazard assessment - Poster Session

Convener: Tsapanos, T.M.
Co-Convener(s): Christova, C.V.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - NH

NH059 TSAPANOS, T.M.; CHRISTOVA, C.
A worldwide seismic hazard assessment

NH060 **AFILHADO, A.**; MENDES-VICTOR, L.A.; MARTINS, I.
Seismic hazards assessment: non parametric tests to isolate seismogenic regions

NH061 ROGOZHIN, E.V.
Earthquake recurrence for North Eurasia: the Thenching data

NH062 **SADYKOV, D.**; ISTEKOV, K.
The model of the seismic process and prognosis of the earthquakes

NH063 KAISER, D.
Uncertainty in the estimation of seismic hazard and design ground motions for nuclear power plants in Germany

NH064 BELIAEVA, E.A.; KUZHEVSKIJ, B.M.; NECHAEV, O.YU.
Variations of neutron flux in the low atmosphere and deformations of the Earth crust

NH065 CHERNOV, YU.K.; SOKOLOV, V.YU.
Earthquake hazard maps and strong earthquakes: assessments and reality

NH066 **LIECHTI, D.**; RUETTENER, E.; EUGSTER, S.; STREIT, R.
The impacat of b value uncertainty on loss estimation in the reinsurance industry

NH067 TSAPANOS, T.M.
Estimation of earthquake hazard parameters in the South America area

NH3 Earthquake risk mitigation (co-sponsored by SE)
.2 Seismic hazard evaluation in high seismicity areas by observing precursory phenomena

Convener: Contadakis, M.E.
Co-Convener(s): Zschau, J.
Wednesday, 22 April 1998
Lecture Room: R6
Co-sponsored by: Dept. of Surveying and Geodesy, University of Thessaloniki, GeoForschungsZentrum Potsdam
Chairperson: Contadakis, M.E.

08:30 **WYSS, M.**; WIEMER, S.
Seismic quiescence is similar to fore- and aftershocks (Solicited Paper)

09:00 HASSOUP, A.; ZSCHAU, J.; WELLE, W.
Seismic-quiescence precursor of earthquake activities in Aswan and Gulf of Aqaba regions as estimated by the Seismolap method

09:15 **CHOULIARAS, G.**; STAVRAKAKIS, G.; ZSCHAU, J.
Detecting precursory seismic quiescene in Greece using the SEISMOLAP method

09:30 **CHRISTOVA, C.**; NIKOLOVA, S.B.; VENEDIKOV, A.
Study of seismicity in Greece and the adjacent areas by the SEISMOLAP method

09:45 **PAPADOPOULOS, G.**; DRAKATOS, G.
A time clustering of strong earthquakes in Greece during October-November 997

10:00 PAPADOPOULOS, G.A.
Successful prediction of the large 18 November 1997 Ionian Sea earthquake

10:15 **EVISON, F.F.**; RHOADES, D.A.
Precursory swarms, quarms, and mainshock hazard

10:30 STEFANSSON, R.
Ananlysis of Icelandic earthquake precursors in the Prenlab project

10:45 **MIYAZAKI, S.-I.**; YARAI, H.; HASHIMOTO, M.
Crustal deformation study of Japan by utilizing GSI's dense GPS array

11:00 **PAVLIS, E.C.**; MERTIKAS, S.; KARALIOTIS, A.; FRANTZIS, X.; MBARTZOS, E.
Seismic hazard monitoring with CRETE: Crete REgional Tectonic Experiment

11:15 BREVDO, L.
Resonant disturbances in a homogeneous elastic waveguide and earthquake prediction

11:30 ISHII, H.
Anomalous preseismic strain and tilt preceding earthquake swarm off Izu Peninsula in Japan. Results observed by multi-component borehole instruments (Poster)

11:35 **FUJIMORI, K.**; ISHII, H.; MUKAI, A.; NAKAO, S.; MATSUMOTO, S.; HIRATA, Y.
Strain and tilt changes observed in the 800 m borehole near the Nojima fault in Awaji Island, Japan (Poster)

11:40 **FUJIMORI, K.**; YAMAMOTO, T.; OTSUKA, S.; OMURA, M.; TANAKA, Y.; ISHII, H.
Crustal movements observed in the focal region before and after the 1995 Hyogo-Ken Nanbu earthquake (M = 7.2) (Poster)

11:45 ALEKSEEV, A.S.
An "boundary dilatancy layers" and their influence on the relation between geophysical anomalies-precursors of different nature (Poster)

11:50 GLINSKY, B.M.
Investigation of tensely-deformed state in high seismicity areas using vibroseismic sources (Poster)

11:55 LUNCH

12:00 Business Meetings

Chairperson: Zschau, J.

14:00 CUOMO, V.; DI BELLO, G.; **LAPENNA, V.**; PISCITELLI, S.; PATELLA, D.; PAPARO, G.; MARSON, I.
Observational evidences of geoelectrical and seismoacoustic signals possible related to seismic activity on southern Apennine Chain (Italy)

14:15 NAZAREVYCH, A.V.; NAZAREVYCH, L.YE.
Parametric seismogeoacoustic monitoring of seismotectonic processes and earthquake prediction in the Ukrainian Transcarpathians (Poster)

14:20 **TZANIS, A.**; VALLIANATOS, F.
'Moving charged dislocation modelling' of electrical earthquake precursors: a promising approach?

14:35 MIKHAILOV, YU.M.; MIKHAILOVA, G.A.; KAPUSTINA, O.V.
ELF and VLF electromagnetic background in outer ionosphere over European seismoactive regions

14:50 POGOSSIAN, A.
Phenomena of leap-type alterations revealted by slope sounding of ionosphere (Poster)

14:55 PULINETS, S.A.; HEGAI, V.V.; BOYARCHUK, K.A.; ALEKSEEV, V.A.
The new conception of earthquakes prediction

15:10 CONTADAKIS, M.E.; ASTERIADIS, G.
Research for geohydrological seismic precursory phenomena in Greece

15:25 OUTKIN, V.; YURKOV, A.; **KRIVASHEEV, S.**; KING, C.-Y.
Radon-exhalation dynamics for predicting tectonic earthquakes (Poster)

15:30 IGOUMNOV, V.; STEPANIAN, Z.
The geochemical variations connected with the Spitak earthquake, Armenia

15:45 **HATA, M.**; TAKUMI, I.; YABASHI, S.
A model of earthquake seen by electromagnetic observation - gaseous emission from the Earth as main source of pre-seismic electromagnetic precursor and trigger of followed earthquake (Poster)

15:50 GULAKYAN, S.Z.
Analyzing the geochemical information for earthquake prediction (Poster)

15:55 **SASOROVA, E.V.**; LEVIN, B.W.
Local signs of earthquake preparing and its availabilities

16:10 SASOROVA, E.V.
The software system for the earthquake precurcor detection based on the regional monitoring

16:25 **KLIMOV, S.**; GRYGORIAN, O.; JUCHNIEWICZ, J.; KOREPANOV, V.; LISSAKOV, YU.; PARROT, M.; POKHOTELOV, O.; RODIN, V.; CHERNJAVSKI, A.
The survey of antropogenic and geophysical electromagnetic perturbation by use the micro satellite integrated in the ISS infrastructure

16:40 **HAINZL, S.**; ZÖLLER, G.; KURTHS, J.
Self-organization of quiescence, foreshocks and aftershocks

16:55 **ZÖLLER, G.**; HAINZL, S.; KURTHS, J.
Using spatiotemporal surrogate data to quantify seismic quiescience

17:10 KOREPANOV, V.; DOUDKIN, F.
Comparative analysis of techniques used for earthquake electromagnetic precursors study

17:25 DI GIOVAMBATTISTA, R.; TYUPKIN, YU.
RTL prognostic parameter: application to the study of seismicity of Italy (Poster)

17:30 END OF SESSION

NH3 Earthquake risk mitigation (co-sponsored by SE)
.2 Seismic hazard evaluation in high seismicity areas by observing precursory phenomena - Poster Session

Convener: Contadakis, M.E.
Co-Convener(s): Zschau, J.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - NH
Co-sponsored by: Dept. of Surveying and Geodesy, University of Thessaloniki, GeoForschungsZentrum Potsdam
Chairperson: Hata, M.

NH071 ISHII, H.
Anomalous preseismic strain and tilt preceding earthquake swarm off Izu Peninsula in Japan. Results observed by multi-component borehole instruments

NH072 **FUJIMORI, K.**; ISHII, H.; MUKAI, A.; NAKAO, S.; MATSUMOTO, S.; HIRATA, Y.
Strain and tilt changes observed in the 800 m borehole near the Nojima fault in Awaji Island, Japan

NH073 **FUJIMORI, K.**; YAMAMOTO, T.; OTSUKA, S.; OMURA, M.; TANAKA, Y.; ISHII, H.
Crustal movements observed in the focal region before and after the 1995 Hyogo-Ken Nanbu earthquake (M = 7.2)

NH074 ALEKSEEV, A.S.
An "boundary dilatancy layers" and their influence on the relation between geophysical anomalies-precursors of different nature

NH075 GLINSKY, B.M.
Investigation of tensely-deformed state in high seismicity areas using vibroseismic sources

NH077 NAZAREVYCH, A.V.; NAZAREVYCH, L.YE.
Parametric seismogeoacoustic monitoring of seismotectonic processes and earthquake prediction in the Ukrainian Transcarpathians

NH078 POGOSSIAN, A.
Phenomena of leap-type alterations revealted by slope sounding of ionosphere

NH079 OUTKIN, V.; YURKOV, A.; **KRIVASHEEV, S.**; KING, C.-Y.
Radon-exhalation dynamics for predicting tectonic earthquakes

NH080 **HATA, M.**; TAKUMI, I.; YABASHI, S.
A model of earthquake seen by electromagnetic observation - gaseous emission from the Earth as main source of pre-seismic electromagnetic precursor and trigger of followed earthquake

NH081 GULAKYAN, S.Z.
Analyzing the geochemical information for earthquake prediction

NH081A DI GIOVAMBATTISTA, R.; TYUPKIN, YU.
RTL prognostic parameter: application to the study of seismicity of Italy

NH3 Earthquake risk mitigation (co-sponsored by SE)
.3 Macroseismics: present state of intensity-assessment procedures and future perspectives

Convener: Tertulliani, A.
Co-Convener(s): Cecic, I.
Thursday, 23 April 1998
Lecture Room: R6
Chairpersons: Tertulliani, A.; Cecic, I.
Editors: Tertulliani, A., Cecic, I.

09:00 EMS WORKING GROUP; **STUCCHI, M.**
NH3.3-001 Testing the European macroseismic scale in the case of the 1997, central Italy earthquakes (Solicited Paper)
09:30 **CAMASSI, R.**; MONACHESI, G.; MOLIN, D.
NH3.3-002 Macroseismic survey of the central Apennines earthquakes of September-October 1997
09:45 DE RUBEIS, V.; GASPARINI, C.;
NH3.3-003 **TERTULLIANI, A.**; TOSI, P.
Preliminary results of the macroseismic survey of the Colfiorito sequence (central Italy)
10:00 **KOUSKOUNA, V.**; MAKROPOULOS, K.C.
NH3.3-005 Macroseismic investigation of some pre- and instrumental period events from the Gulf of Corinth
10:15 **ZIVCIC, M.**; CECIC, I.
NH3.3-006 Revised magnitudes of historical earthquakes in Slovenia
10:30 END OF SUB-SESSION

NH3 Earthquake risk mitigation (co-sponsored by SE)
.3 Macroseismics: present state of intensity-assessment procedures and future perspectives - Poster Session

Convener: Tertulliani, A.
Co-Convener(s): Cecic, I.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - NH
Chairpersons: Levret, A.; Kouskouna, V.
Editors: Tertulliani, A., Cecic, I.

NH082 ALBARELLO, D.; MUCCIARELLI, M.;
NH3.3-007 D'AMICO, V.
Seismic hazard estimates from felt intensities at the sites shaken from the 1997 central Italy earthquake
NH083 BARBANO, M.S.; CECIC, I.
NH3.3-008 The use of the EMS-1992 scale in the field work: examples from the central Italy, September - October 1997
NH084 CIFELLI, F.; **DONATI, S.**; FUNICIELLO, F.
NH3.3-009 Distribution of effects in the urban area of Rome, for the October 14, 1997 (central Italy) event
NH085 RIGUZZI, F.
NH3.3-010 Intensity vs calalogues: the case of the 1975, June 19 Gargano (southern Italy) earthquake
NH086 **CECIC, I.**; SOVIC, I.; ZIVCIC, M.
NH3.3-011 The Zagreb 1502 earthquake - doubtful or even fake?
NH087 **LEVRET, A.**; SCOTTI, O.
NH3.3-012 Verification of macroseismic methods on two M=5.2 instrumental earthquakes in France
NH088 SOVIC, I.
NH3.3-013 Croatian macroseismic database
NH089 **GUTDEUTSCH, R.**; LENHARDT, W.
NH3.3-014 The method of comparison earthquakes - a tool of parametrisation historical earthquakes
NH090 **VANNUCCI, G.**; GASPERINI, P.; FERRARI,
NH3.3-015 G.; GUIDOBONI, E.
A fuzzy system to assess seismic intensity
NH091 BAPTISTA, M.A.; MIRANDA, J.M.; MENDES
NH3.3-016 VICTOR, L.
A new attenuation law for the 1755.01.11 Lisbon earthquake
NH092 **MUSSON, R.M.W.**; HENNI, P.H.O.
NH3.3-017 From questionnaires to intensities - assessing free-form macroseismic data in the UK
NH093 PAULA, A.; OLIVEIRA, C.S.
NH3.3-018 Strategies for the use of macroseismic information in the study of ground response to seismic excitation
NH094 D'AMICO, V.; ALBARELLO, D.;
NH3.3-019 MANTOVANI, E.
A distribution-free analysis of the magnitude-intensity relationships: an application to the Mediterranean region
NH095 SOKOLOV, V.YU.; CHERNOV, YU.K.
NH3.3-020 Correlation of seismic intensity with Fourier acceleration spectra

NH3 Earthquake risk mitigation (co-sponsored by SE)
.4 Active fault and earthquake risk mitigation

Convener: Barka, A.A.
Co-Convener(s): Stewart, I.S.
Monday, 20 April 1998
Lecture Room: R6
Chairperson: Stewart, I.S.

14:00 **TRIFONOV, V.G.**; IVANOVA, T.P.
Seismic hazard assessment by using active fault data (Solicited Paper)
14:30 **GASPERINI, P.**; BERNARDINI, F.; VALENSISE, G.; BOSCHI, E.
Defining seismogenic sources from historical earthquake felt reports
14:45 **ROGNVALDSSON, S.TH.**; SLUNGA, R.
Mapping subsurface faults using relative locations and fault plane solutions of mincroearthquakes
15:00 **DE MARTINI, P.M.**; BURRATO, P.; VALENSISE, G.
Active tectonic structures in the Padana Plain: new discrimination strategy from a joint study of geomorphic and geodetic leveling data
15:15 **ANGELIER, J.**; CHU, H.-T.; HU, J.-C.; LEE, J.-C.
Fault kinematics and earthquake risk: Chihshang, Taiwan
15:30 MEGHRAOUI, M.
Fault-fragments and related active deformation: implications for the seismic hazard assessment (Solicited Paper)
16:00 **VITTORI, E.**; AZZARO, R.; FERRELI, L.; MICHETTI, A.M.; SERVA, L.
Paleoseismological investigations along the Moscarello Fault, Mt. Etna volcano (Sicily)

16:15 **NOSTRO, C.**; STEIN, R.S.; COCCO, M.; BELARDINELLI, M.E.; MARZOCCHI, W.
Two-way coupling between eruptions at Vesuvius and southern Apennine earthquakes by elastic stress transfer
16:30 **BARKA, A.**; NALBANT, S.; HUBERT, A.; KING, G.
Coulomb modelling of Marmara Sea earthquakes since 1700: implications on the earthquake hazard of the Istanbul region
16:45 **ERDIK, M.**; SESETYAN, K.
Seismic hazards in the Caucasus region
17:00 BARKA, A.; STEWART, I.
Concluding remarks
17:15 END OF SUB-SESSION
17:00 Opening
19:30 Reception

NH3 Earthquake risk mitigation (co-sponsored by SE)
.4 Active fault and earthquake risk mitigation - Poster Session

Convener: Barka, A.A.
Co-Convener(s): Stewart, I.S.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Tuesday, 17:00 - 19:00
Poster Area: RHODES - NH

NH068 AZZARO, R.
Earthquake surface faulting in volcanic areas: a case-study from Mount Etna (Sicily)
NH069 SULEIMAN, A.; DOSER, D.
Seismotectonics and seizmic hazard assessment of Libya
NH070 **KOUTINOV, I.G.**; YUDAKHIN, F.N.; BELENOVICH, T.Y.
Non-traditional aspects of seismic hazard in the zone of active faults within the Russian Plate

NH3 Earthquake risk mitigation (co-sponsored by SE)
.5 Landslide hazards in seismically active regions

Convener: Wasowski, J.
Co-Convener(s): Del Gaudio, V.
Thursday, 23 April 1998
Lecture Room: R6
Chairperson: Jibson, R.W.

11:00 KEEFER, D.K.
Occurrence and evaluation of landslides generated by earthquakes (Solicited Paper)
11:30 BEGIN, C.; PERRET, D.
Earthquak-induced landslides in Saguenay lowlands (Québec, Canada): impact of the 1663 Charlevoix earthquake
11:45 PAPADOPOULOS, G.
Earthquake related landslides in Greece
12:00 **WUST, G.H.**; WACHS, D.
Monitoring aseismic slope activity in northern Israel: a key to the comprehensive assessment of the seismic triggering of landslides
12:15 ARINGOLI, D.; DRAMIS, F.; GENTILI, B.; MATERAZZI, M.; PAMBIANCHI, G.; SCALELLA, G.
Earthquake related gravitational phenomena in the Umbro-Marche Apennines (central Italy): the case of the September-November 1997 seismic events
12:30 ESPOSITO, E.; PORFIDO, S.; **SIMONELLI, A.L.**; IACCARINO, G.; MASTROLORENZO, G.
Surface effects induced by the 26.09.97 Umbria-Marche earthquakes
12:45 **WASOWSKI, J.**; DEL GAUDIO, V.
Mass movement and seismic hazard in Caramanico Terme (Italy): some links
13:00 LUNCH

Chairpersons: Keefer, D.K.; Chowdhury, R.

14:00 JIBSON, R.W.
Assessing hazards from seismically triggered landslides: an overview of the state of the art (Solicited Paper + Poster)
14:30 HERMANN, S.
Deep-seated gravitational slope deformations (DGSD) as a natural laboratory of brittle rock deformation - implications to rock slope hazards
14:45 **TRAUTH, M.H.**; MÜLLER, A.B.; STRECKER, M.R.
The role of climate as a preparatory or triggering actor in the generation of catastrophic landslides in NW Argentina
15:00 **HERMANNS, R.M.**; STRECKER, M.R.; TRAUTH, M.H.; HASELTON, K.
Important boundary conditions controlling rock-avalanche distribution in semi-arid NW Argentina
15:15 **HASELTON, K.**; HERMANNS, R.; BOOKHAGEN, B.; STRECKER, M.
Development of a landslide hazard map for northwest Argentina
15:30 FINZI-CONTINI, G.
Large Apennine landslides along Italian Adriatic foredeep studies by L-transforms (Visco-Elastic domain)
15:45 ROMEO, R.
Earthquake-induced ground failures in Italy
16:00 LUZI, L.; PERGALANI, F.; BRUNI, F.; TERLIEN, M.T.J.
Hybrid probabilistic-deterministic approach for mapping landslide vulnerability to earthquakes using GIS techniques
16:15 PARISE, M.; JIBSON, R.W.
A seismic landslide suceptibility rating of geologic units based on analysis of characteristics of landslides triggered by the January 17, 1994, Northridge, California, earthquake
16:30 KRISHNA, A.P.
Landslide hazard management and prediction options: some strategies for the Sikkim Himalaya, India
16:45 BASHELEISHVILI, L.
Genesis of the seismodislocations in the epicenter of the Racha earthquake
17:00 WASOWSKI, J.
Poster session introduction and closing comments
17:15 END OF SUB-SESSION

NH3 Earthquake risk mitigation (co-sponsored by SE)
.5 Landslide hazards in seismically active regions - Poster Session

Convener: Wasowski, J.
Co-Convener(s): Del Gaudio, V.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:30 - 19:00
Poster Area: RHODES - NH
Chairpersons: Wasowski, J.; Del Gaudio, V.

NH031 JIBSON, R.W.
Assessing hazards from seismically triggered landslides: an overview of the state of the art (Solicited Paper + Poster)

NH032 SKARYATIN, V.D.; MAKAROVA, M.G.; ZENGINA, T.J.; NIKITIN, M.J.
Studying the slope-processes in seismic-active regiones with the help of remote sensing

NH033 **MÜLLER, A.B.**; TRAUTH, M.H.; STRECKER, M.R.
Climate-triggered variations in diatom assemblages in a pleistocene landslide-dammed lake in the Valles Calchaquies, NW Argentina (26°S, 66°W)

NH034 **BOOKHAGEN, B.**; HASELTON, K.; TRAUTH, M.H.
Water balance model of a landslide-dammed lake in the Andes of NW Argentina (26°S, 66°W)

NH035 ADORNI, G.; NICOLETTI, P.G.; PARISE, M.; SCALZO, A.
Reconnaissance and description of landslide dams of seismic origin in south-eastern Sicily

NH036 **VANBRABANT, F.**; FLEURISSON, J.A.
Influence of the topographic amplifications under dynamic loading on the slope stability

NH037 DAYU, G.
Applications of geophysical survey in geological hazard mitigation in P.R. China

NH038 CASTALDINI, D.; **PANIZZA, M.**
Earthquake-induced landslide hazard assessment in the northern Apennines (Italy)

NH039 ROMEO, R.
Seismically induced landlside displacements: a predictive model

NH040 CHOWDHURY, R.N.; FLENTJE, P.
Spatial hazard assessment for landslides under seismic conditions

NH041 KOUKIS, G.; NIKOLAOU, N.
Inventory and classification of landslide phenomena at a seismically active region (NE part of Korinthos county, Greece)

NH042 GUERRICCHIO, A.; RONCONI, M.L.
Large landslides reactivated by 1783 earthquake in the Catena Costiera of Calabria (S. Lucido, Italy) *

NH042A BOZZANO, F.; GAMBINO, P.; PRESTININZI, A.; ROMEO, R.; SCARASCIA MUGNOZZA, G.; VALENTINI, G.
Ground effects induced by the Umbria-Marche earthquakes of September October 1997 (central Italy) *

Attend the Poster Session

NH3 Earthquake risk mitigation (co-sponsered by SE)
.6 Efficiency of building codes in the mitigation of the vulnerability

Convener: Petrini, V.
Co-Convener(s): Pujades Beneit, L.G.
Tuesday, 21 April 1998
Lecture Room: R6
Chairperson: N.N.

14:00 CASELLES, J.O.; **ESPINOZA, F.**; PUJADES, L.G.; CANAS, J.A.; CLAPES, J.
Empirical determination of Barcelona's buildings natural periods by using background cultural noise

14:15 SOUSA OLIVEIRA, C.
Natural frequencies of structures based on simplified in situ measurements

14:30 SOUSA, M.L.; CAMPOS-COSTA, A.; SOUSA OLIVEIRA, C.
Comparison of losses before and after seismic resistant code: application to an urban area

14:45 MENA, U.; PUJADES, L.G.; CANAS, J.A.; LOPEZ-ALMANSA, F.
Seismic risk studies in Barcelona, Spain

15:00 SOKOLOV, V.YU.
Probabilistic approach to building code construction

15:15 END OF SUB-SESSION

NH3 Earthquake risk mitigation (co-sponsored by SE)
.7 Seismic microzonation in urban areas - Poster Session

Convener: Roca, A.
Co-Convener(s): Oliveira, C.S.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - NH
Editors: Roca, A.; Oliveira, C.S.

NH096 TEVES-COSTA, P.; MOITINHO, I.; LOPES, I.
NH3.7-016 Microzonation of hte Lisbon town: a theoretical approach

NH097 LAZARO, R.; PINTO, V.; RIVERO, L.; ROCA,
NH3.7-017 J.L.; CASAS, A.
Gravity anomaly map of Barcelona as a tool for determining the structural framework and depth to basement in relation to seismic microzonation of an urban area

NH098 ALFARO, A.; GOULA, X.; SUSAGNA, T.;
NH3.7-018 PUJADES, L.G.; NAVARRO, M.; SANCHEZ, J.; CANAS, J.A.
Preliminary map of soil predominant periods in Barcelona using microtremors

NH099 **CID, J.**; SUSAGNA, T.; GOULA, X.;
NH3.7-019 CHAVARRIA, L.; FIGUERAS, S.; FLETA, J.; CASAS, A.; ROCA, A.
Seismic zonation of Barcelona based in preliminary site specific response spectra

NH100 UMBRIA-MARCHE SITE EFFECT GROUP
NH3.7-020 (UMSEG), **MARSON, P.**
Experimental site effect evaluation in urban alreas of the Umbria and Marche regions (Italy)

NH101 SOKOLOV, V.YU.; CHERNOV, YU.K.
NH3.7-021 Probabilistic microzonation of urban territories

NH102 NH3.7-022 BOCCALETTI, M.; CORTI, G.; GASPERINI, P.; **PICCARDI, L.**; VANNI DESIDERI, A.; VANNINI, G.; VANNUCCI, G.; CLEMENTE, S.
Seismic zonation and active tectonics of the urban area of Florence (Italy)

NH103 NH3.7-023 **ENOMOTO, T.**; NAVARRO, M.; SANCHEZ, F.J.; VIDAL, F.; SEO, K.; LUZON, F.
Aplication of dynamic response analysis of buildings for the seismic risk assessment in Almeria city

NH3 Earthquake risk mitigation (co-sponsored by SE)
.7 Seismic microzonation in urban areas

Convener: Roca, A.
Co-Convener(s): Oliveira, C.S.
Friday, 24 April 1998
Lecture Room: R6
Chairperson: Oliveira, C.S.
Editors: Roca, A.; Oliveira, C.S.

08:30 NH3.7-001 EUROSEISMOD GROUP; **BARD, P.-Y.**
EUROSEISMOD lessions for microzoning studies (Solicited Paper)

09:00 NH3.7-002 **DIAGOURTAS, D.**; TZANIS, A.; MAKROPOULOS, K.
Comparative study of microtremor analysis methods

09:15 NH3.7-003 UGALDE, A.; EGOZCUE, J.J.; ALFARO, A.; PUJADES, L.G.; CANAS, J.A.
Estimation of the system function of soils using microtremors

09:30 NH3.7-004 **NAVARRO, M.**; SANCHEZ, F.J.; ENOMOTO, T.; MATSUDA, I.; VIDAL, F.; SEO, K.; POSADAS, A.J.
Detailed seismic microzoning of Almeria city using geotechnical information and microtremor observations

09:45 NH3.7-005 **TRIANTAFYLLIDIS, P.**; HATZIDIMITRIOU, P.; THEODOULIDIS, N.; SUHADOLC, P.; PAPAZACHOS, C.; RAPTAKIS, D.
Site effects in the city of Thessaloniki (Greece): estimates from data and modelling

10:00 NH3.7-006 **LE BRUN, B.**; HATZFELD, D.; BARD, P.-Y.
Seismic microzonation in Grenoble (France)

10:15 NH3.7-007 **DUVAL, A.-M.**, MENEROUD, J.-P.; SINGER, A.; FUNVISIS TECHNICAL MEMBERS
Caracas (Venezuela) site effect determination with microtremor

10:30 BREAK

Chairperson: Roca, A.
Editors: Roca, A.; Oliveira, C.S.

10:45 NH3.7-008 **DUVAL, A.-M.**; SEMBLAT, J.-F.; MENEROUD, J.-P.
Site effect determination in Nice, France (Gemitis project)

11:00 NH3.7-009 UGALDE, A.; PUJADES, L.G.; CANAS, J.A.
Microtremor analysis to characterise seismic wave attenuation in the city of Barcelona

11:15 NH3.7-010 **MARRARA, F.**; SUHADOLC, P.
Evaluation of site effects in Volvi Basin (Greece) from experimental data and modelling

11:30 NH3.7-011 BELLUCCI, F.; **CASERTA, A.**; CULTRERA, G.; DONATI, S.; MARRA, F.; MELE, G.; PALOMBO, B.; ROVELLI, A.
Study of site effects in the area of Nocera Umbra (central Italy) during the 1997 Umbria-Marche seismic sequence

11:45 NH3.7-012 **MOLDOVEANU, C.L.**; PANZA, G.F.
2-D strong motion simulation for microzoning of Bucharest

12:00 NH3.7-013 OLIVEIRA, C.S.; CORREIA GUEDES, J.H.; LUCAS, A.
The earthquale sequence oe events during June-October 1997 crise in the Azores observed under different soil conditions

12:15 NH3.7-014 **FÄH, D.**; NOACK, T.
The influence of the experts opinion on microzonation studies

12:30 NH3.7-015 PANZA, G.F.
Realistic modelling of seismic input in urban areas: a UNESCO/IGCP project (Solicited Paper)

13:00 LUNCH

Chairperson: Roca, A.

14:00 Discussion
16:00 END OF SESSION

NH4 Volcanic hazards: field studies, instrumentation and observation networks (co-sponsored by SE) - Poster Session

Convener: Kilburn, C.
Co-Convener(s): Vougioukalakis, G.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - NH

NH043 **ACHILLI, V.**; AL-BAYARI, O.; ARTESE, G.; BORGSTROM, S.; CAPONE, M.; COPPA, U.; DEL GAUDIO, C.; GANDOLFI, S.; MACCHIAVELLI, N.; RICCO, C.; SEPE, V.; VETTORE, A.; AST, A.L.
GPS measurements in the Neapolitan volcanic area

NH044 BALDI, P.; **MARSELLA, M.**; VITTUARI, L.
GPS and digital photogrammetry for monitoring ground deformations on a volcanic area

NH045 **PINGUE, F.**; OBRIZZO, F.; TROISE, C.; BERRINO, G.; DE NATALE, G.; CAPUANO, P.; ESPOSITO, T.; TAMMARO, U.; DE LUCA, G.; SCARPA, R.; CORRADO, G.
Ground deformation monitoring at Somma-Vesuvius and Campanian volcanic area (Italy)

NH046 **FINIZOLA, A.**; RAMOS, D.; MACEDO, O.
Self-potential studies of hydrthermal systems and structure on Mistit and Ubinas volcanoes, S. Peru

NH047 **ZIMMER, M.**; ERZINGER, J.
Gas chemical studies at Merapi volcano, Indonesia

Attend the Business Meeting of your Section

on Wednesday, 22 April, 12.00-14.00, Lecture Room R1

NH4 Volcanic hazards: field studies, instrumentation and observation networks (co-sponsored by SE)

Convener: Kilburn, C.
Co-Convener(s): Vougioukalakis, G.
Friday, 24 April 1998
Lecture Room: STUDIO
Chairperson: N.N.

09:00 **MCGUIRE, W.J.**; MOSS, J.L.
Geodetic monitoring of dyke emplacement, slope instability, and fault creep at Mount Etna
09:15 **BUDETTA, G.**; CARBONE, D.; GRECO, F.
Subsurface mass redistribution detected by micro-gravity studies at Mt. Etna, 1995-1996
09:30 **DEL NEGRO, C.**; FERRUCCI, F.; NAPOLI, R.
Geomagnetic prediction of volcanic eruptions
09:45 LEONARDI, S.; **GRESTA, S.**; MULARGIA, F.
Cross-correlation between volcanic tremor and SO_2 flux data from Mt. Etna volcano
10:00 DE RUBEIS, V.; TOSI, P.; BARBANO, M.S.; **VINCIGUERRA, S.**
Time and spatial clustering of Etnean seismicity, 1981-1991
10:15 MULARGIA, F.
Retrospective identification of phenomena correlated with volcanic eruptions
10:30 BREAK

Chairperson: N.N.

11:00 **PRIVITERA, E.**; ARMADILLO, E.; BONACCORSO, A.; BOZZO, E.; CAPRA, A.; CANEVA, G.; FALZONE, G.; FERRACCIOLI, F.; GRESTA, S.; REIANO, D.; MT. BELBOURNE GEOPHYSICAL GROUP
An integrated monitoring project for the modelling of Mt. Melbourne volcano internal dynamics (Antarctica)
11:15 **ACHILLI, V.**; AL-BAYARI, O.; ARTESE, G.; BORGSTROM, S.; CAPONE, M.; COPPA, U.; DEL GAUDIO, C.; GANDOLFI, S.; MACCHIAVELLI, N.; RICCO, C.; SEPE, V.; VETTORE, A.; AST, A.L.
GPS measurements in the Neapolitan volcanic area
11:30 **MATTIOLI, G.S.**; DIXON, T.H.; FARINA, F.; HOWELL, E.S.; JANSMA, P.; SMITH, A.L.
Development of a mixed-mode GPS geodetic network at Soufriere Hills volcano, Montserrat
11:45 **REBSCHER, D.**; WESTERHAUS, M.; WELLE, W.; NANDAKA, I.G.M.A.
Monitoring ground deformation at the decade volcano Gunung Merapi, Indonesia
12:00 BERRINO, G.; CORRADO, G.; MAGLIULO, R.; **RICCARDI, U.**
Continuous gravity record at Mount Vesuvius: a tool to monitor its dynamics
12:15 **BONVALOT, S.**; DIAMENT, M.; DEPLUS, C.; GABALDA, G.; STAUDACHER, T.
Microgravity monitoring of Piton de la Fournaise volcano (La Réunion)
12:30 **FALLER, J.E.**; VITOUCHKINE, A.
New gravity sensors as probes of volcanic activity
12:45 LA ROCCA, M.; PETROSINO, S.; SACCOROTTI, G.; SIMINI, M.; IBANEZ, J.; ALMENDROS, J.; DEL PEZZO, E.
Location of the source and shallow velocity model deduced from the explosion quakes recorded by two seismic antennas at Stromboli volcano
13:00 LUNCH

Chairperson: N.N.

14:00 **ROSATELLI, G.**; JONES, A.P.
Petrological triggers to volcanic eruptions: silicate-carbonate magma unmixing
14:15 **SULPIZIO, R.**; DI VITO, M.A.; ZANCHETTA, G.
Landscape response to the deposition of airfall pyroclastics from large explosive eruptions: an example from the Campanian area (southern Italy)
14:30 **DAY, S.J.**; CARRACEDO, J.C.
Kinematics and mechanics of lateral collapses on oceanic island volcanoes, and their efficiency as tsunami sources
14:45 **MANGENEY, A.**; HEINRICH, P.; ROCHE, R.; GUIBOURG, S.; BOUDON, G.; CHEMINEE, J.L.
Numerical simulation of a potential debris avalance in Montserrat, lesser Antilles
15:00 **AGUIRRE-DIAZ, G.J.**; FERRARI, L.; LABARTHE-HERNANDEZ, G.
The source paradigm of the voluminous ignimbrites of the Sierra Madre Occidental, Mexico
15:15 CIONI, R.; **GURIOLI, L.**; SBRANA, A.; VOUGIOUKALAKIS, G.
Precurcursors to the plinian eruptions of Thera (1628 BC) and Vesuvious (79 AD): data from archaeological sites
15:30 BREAK

Chairperson: N.N.

16:00 **PAPADOPOULOS, G.**; SACHPAZI, M.; PANAPOULOU, G.; STAVRAKAKIS, G.
The volcanoseismic crisis of 1996-1997 in Nisyros, SE Aegean Sea, Greece
16:15 LONGO, A.; **NERI, A.**; ROSI, M.; MACEDONIO, G.
Pyroclastic flow hazard in the maximum expected event at Campi Flegrei (Italy)
16:30 SORENSEN, S.-A.
Risk evaluation with stochastic models of lava flows
16:45 Concluding Remarks
17:00 END OF SESSION

NH5 Geomorphological hazards: extent, evaluation and mapping techniques

Convener: Guzzetti, F.
Co-Convener(s): Allison, R.J.
Thursday, 23 April 1998
Lecture Room: STUDIO
Chairperson: Guzzetti, F.

09:00 **HERVAS, J.**; ROSIN, P.L.
Semi-automatic texture segmentation of remotely sensed imagery for landslide hazard assessment
09:15 KUBOTA, T.
Analysis of slope gradient antecedent to landslide for primarily slide susceptibility mappings

09:30 HUNGR, O.
Elements of risk mapping for rapid landslides
09:45 ARATTANO, M.; GRATTONI, P.; MARCHI, L.
Mesurement of debris flow surface velocity based on image processing techniques
10:00 MASSARI, R.; ATKINSON, P.M.
Modelling the influence of vegetation clearance in the occurrence of shallow landslides
10:15 BREAK

Chairperson: Guzzetti, F.

11:00 OJEDA, G.
Geomorphological survey and GIS techniques as a toll for predictive erosion mapping
11:15 OLIVERI, S.; **BRUNORI, C.A.**; GIARDINO, C.; LUZI, L.; PEPE, M.; ZILIOLI, E.
Indirect evaluation of erosion using DEM and remote sensing techniques
11:30 MEYER, A.; MARTINEZ-CASASNOVAS, J.A.
Modelling the probability of gully development in vineyard parcels
11:45 BECCHI, I.; CAPORALI, E.; CAPARRINI, F.; PROFETI, G.
Remote sensing to evaluate soil hydrological status in the Arno basin, Italy
12:00 CIAVOLA, P.; TESSARI, U.; MANTOVANI, F.; SIMEONI, U.
Evaluation of floodplain changes and geomorphological mapping of the coastal zone plain of Myzeq (Albania) using Landsat TM imagery
12:15 BENVENUTO, F.; **MARANI, A.**; SILVESTRI, S.
A new database for environmental risk assessment and hazards prevention in the Venice area
12:30 END OF SESSION

NH5 Geomorphological hazards: extent, evaluation and mapping techniques - Poster Session

Convener: Guzzetti, F.
Co-Convener(s): Allison, R.J.
Display Time: Monday, 09:00 - Friday, 13:00
Authors in Attendance: Thursday, 17:00 - 19:00
Poster Area: RHODES - NH
Chairperson: Guzzetti, F.

NH049 **PANIZZA, M.**; CORSINI, A.; GANDOLFI, M.; MARCHETTI, M.; SOLDATI, M.
Geomorphological mapping for landslide hazard assessment in the Dolomites (Italy)
NH050 GONZALEZ DIAZ, E.F.; COSTA, C.H.; GICCARDI, A.D.; FAUQUE, L.E.
Rock-avalanches as evidences of paleoseismic activity in the Sierras Pampeanas, Argentina
NH051 **COE, J.A.**; GODT, J.W.; PARISE, M.
Evaluation of stream and debris flow hazards on small fans along the Interstate-70 highway corridor, central Colorado, USA
NH052 MEYER, A.; MARTINEZ-CASASNOVAS, J.A.
Gully erosion in vineyard parcels in the NE Spain. A study of determining factors
NH053 CARDINALI, M.; CIPOLLA, F.; GUZZETTI, F.; PAGLIACCI, S.; **REICHENBACH, P.**
The new map of sites historically affects by landslides and floods in Italy
NH054 BECCHI, I.; DOMENICHINI, L.; LA TORRE, F.; CAPORALI, E.
Influence of heavy rainfalls on road safety
NH055 **CIPOLLA, F.**; SEBASTINI, C.
Techniques for hydrological risk assessment in civil protection planning
NH056 ORTIGOSA, L.; **ARNAEZ, J.**; GARCIA-RUIZ, J.M.
Geomorphological mapping and GIS techniques for predicting geomorphological hazards
NH057 MATOVA, M.; FRANGOV, G.; PETKOVSKI, R.; ALIAJ, S.
The study of land subsidence in the regions of Sofia, Skopje and Tirana
NH058 AMANTIA, A.; **FERRARA, V.**; PAPPALARDO, G.
Landslide hazard and risk mapping: a case study in Alcantara River basin (NE Sicily - Italy) *
NH058A MAGAGNOSC, J.S.
Geomorphological map (1:25.000) of the epicentral area of the 1980 El Asnam's earthquake (Algeria) *
NH058B PARADIS, S.J.; PERRET, D.; **BEGIN, C.**
Contribution of detailed surficial mapping in the reconnaissance of multi-event landslides in postglacial marine clays

NH6 Transfer of the scientific information to the users

Convener: Becchi, I.
Co-Convener(s): Guzzetti, F.
Tuesday, 21 April 1998
Lecture Room: STUDIO
Co-Sponsored by: UNESCO
Chairperson: N.N.

14:00 SICCARDI, F.
Do we need a Natural Hazard Journal?
14:20 BAZZOCCHI, F.; **CACIOLI PACISCOPI, G.**; PROFETI, G.
Coping with floods: a proposal for a museum in Florence
14:40 **SZINELL, CS.**; WILHITE, D.
Developing an agrometeorological information system to mitigate the effects of drought
15:00 **GARROTTE, L.**; CUENA, J.
A man-machine conversation model for real-time management of emergency situations
15:20 **NATIVI, S.**; PALMISANO, E.; FEDERICI, G.; BUGLI, E.
Interoperability systems for supporting decision-makers in the environment sector
15:40 **RUBBIA RINALDI, G.**; PADULA, M.; ROTA, D.; ZERGA, A.
Information dissemination fo the seismicity of Italian area through the GNDT web site (Oral + PC demo)
16:00 CARDINALI, M.; **GUZZETTI, F.**; REICHENBACH, P.; TONELLI, G.
Conveying scientific information to the users: the experience of the GNDCI information delivery system (Oral + PC demo)

Video and PC demos: Tuesday, 17.00-19.00 in the poster area

Additional Symposia

STA Workshop on the EC TMR program: Scientific Training and Access to Aircraft for Atmospheric Research Throughout Europe (STAAARTE): experiences-results-discussions

Convener: Krautstrunk, M.
Co-Convener(s): Kindred, D.R.; Penazzi, G.
Thursday, 23 April 1998
Lecture Room: R8
Co-sponsored by: European Commissions's TMR Programme
Chairperson: Rösler, F.

09:00 RÖSLER, F.
The STAAARTE-Project (Scientific Training and Access to Aircraft for Atmospheric Research Throughout Europe)
09:15 KRAUTSTRUNK, M.
DLR Falcon: a research aircraft for STAAARTE
09:30 VIDAL-MADJAR, D.; PENAZZI, G.
ARAT Fokker 27 facility
09:45 FOOT, J.S.; KINDRED, D.R.
STAAARTE and the MRF C-130 research aircraft
10:00 FILIPPI, D.; LE ROULLEY, J.-C.; DULAC, F.
STAAARTE ISOKI Experiment: first steps towards an automated airborne isokinetic instrument *
10:15 DULAC, F.; FILIPPI, D.; CACHIER, H.; EZAT, U.; LE ROULLEY, J.C.; PARONIS, D.; CHAZETTE, P.; HAMONOU, E.; MIHALOPOULOS, N.; KOUVARAKIS, G.; GAUDICHET, A.; CAQUINEAU, S. LOSNO, R.; MALINGRE, G.; QUISEFIT, J.P.;; ALBERS, F.; WIRTH, M.; KRAUTSTRUNK, M.
Characterization of tropospheric aerosols in the eastern Mediterranean from airborne and other measurements during the June 1997 STAAARTE campaign
10:30 BREAK

Chairperson: Vidal Madjar, D.

11:00 PETRAKIS, M.; KOUIMTZIS, T.; GLAVAS, S.
ARTE Athens campaign 1997 *
11:15 VAROTSOS, C.; ALEXANDRIS, D.; CHRONOPOULOS, G.
Radiation field in the troposphere over Greece (RAFT/STAAARTE) *
11:30 MORENO, J.; FORTEA, J.; DEL PINO, J.; CADIMA, I.; JOCHUM, A.; BAUMANN, R.; AMAN, V.; GIEZ, A.; ZANDER, D.; RÖSLER, F.; KRAUTSTRUNK, M.
Mapping surface and atmospheric conditions for energy balance studies in arid vegetated areas, by using a combination of sensors on board the DLR-Falcon 20E5 D-CMET aircraft
11:45 NYEKI, S.; KALBERER, M.; COLBECK, I.; BALTENSPERGER, U.; PETZOLD, A.; SCHRÖDER, F.; WIRTH, M.; KRAUTSTRUNK, M.; RÖSLER, F.
Development of the planetary boundry layer/free troposphere height over a high-alpine mountain station: time-series study of airborne lidar transects
12:00 **PIRINGER, M.**; BAUMANN, K.; TRAHER, F.
Evaluation of mixing heights and ozone profiles deduced from ground-based measurements and remote sensing by aircraft
12:05 PUTZ, E.
Vertical profiles of the photolyses rate $J(O_1D)$ and the spectral actinic flux *
12:10 PAPAYANNIS, A.; BALIS, D.; GALANI, E.; ANCELLET, DG.; ZIOMAS, I.; KOSMIDIS, E.
Airborne ozone dial measurements over Greece on board the French Arat airplane during the STAAARTE'96 campaign
12:25 **MACELLONI, G.**; PALOSCIA, S.; PAMPALONI, P.; SUSINI, C.; RUISI, R.
Airborne microwave radiometer measurements on an agricultural site: the IROE-STAAARTE mission
12:40 **COUTINHO, M.**; BORREGO, C.; BARROS, N.; VALINHAS, M.J.
Atmospheric field study in the Lisbon region
12:55 LUNCH

Chairperson: Foot, J.

14:10 PERSSON, T.
STAAARTE airborne measurements - results from southern WINTEX region
14:25 VAN MEERVELD, H.J.; SARA, S.A.; VAN DE GRIEND, A.A.
Remote sensin studies over the southern NOPEX region - Uppsala site
14:40 **KANGAS, M.**; LAINE, V.; HEIKINHEIMO, M.
Use of C-130 airborne measurements in the verification of satellite albedo measurements in the northern NOPEX/WINTEX area
14:55 HOJSTRUP, J.
Coastal boundary layers in the Baltic Sea
15:10 MENSINK, C.; DEBRUYN, W.
Transboundary flux measurements for photochemical model validation in Flanders
15:25 RÖSLER, F.
Discussion
16:30 END OF SESSION

Physics and Chemistry of the Earth

If you intend to organize an event at a larger meeting, a workshop or topical conference within geology, geochemistry, geophysics, hydrology, oceanography or atmospheric and planetary and space sciences, please consider *PCE* for the publication of your proceedings.

Author Index

AAGAARD, P. 151, 152
AALTO, P. 192
AARO, S. 73, 87
ABABOU, R. 157
ABARCA DEL RIO, R. 132
ABASSI, A. 199
ABBONDANZI, F. 150
ABD-ELMOTAAL, H. 131
ABDELMOULA, M. 151
ABE, S. 115
ABELLO, P. 168
ABERSON, S.D. 255, 256
ABILOVA, E. 233
ABOU HELEKIA, M.M. 106
ABRAHAM, P. 247
ABRAHAMSEN, N. 96, 97, 101, 103
ABRAMOVITZ, T. 83, 86
ABRIAK, N.E. 147
ABSY, J. 161
ABU-ZEID, N. 142
ABUHAJAR, M.I. 106
ACCADIA, C. 178
ACCAINO, F. 118
ACHARD, F. 107
ACHAUER, U. 77-79, 87
ACHILLI, V. 277, 278
ACKER, K. 229
ACKERER, P. 157
ACKERMANN, R. 197, 198
ACOCELLA, V. 76, 93
ACREMAN, M. 156, 160
ACS, F. 145
ACTON, G. 72
ACUNA, M.H. 236, 240
ADAM, A. 113
ADAM, J. 115, 117
ADAMS, J. 194, 195
ADAR, E. 147
ADAR, E.M. 140, 147, 153, 154
ADCOCK, S.T. 166
ADE, P.A.R. 246-248
ADEM, J. 203
ADLER, M.-J. 145, 154, 270
ADLER, P.M. 108, 112, 139
ADORNI, G. 276
ADRIAENS, P. 150
AELLIG, M.R. 224
AERTS, J.C.J.H. 153
AFANASYEV, YA.D. 258
AFILHADO, A. 271, 272
AFONIN, V.V. 222
AGAFONOV, A.V. 111
AGAR, S.M. 108, 113
AGARWAL, A.K. 113
AGNESE, C. 143
AGNEW, D. 134
AGOSTINI, P. 261
AGUIRRE, L. 68
AGUIRRE-DIAZ, G.J. 278
AGULOVA, L.P. 120
AGUZZI, A. 195
AHMADI, A. 157
AHMED, F.M. 106, 107
AHONEN, J. 146
AHRENS, B. 185
AIDONA, E. 104
AIELLO, G. 74
AIGNER, T. 139
AIKI, H. 266
AIKIN, A.C. 227
AJO, J. 234, 235
AKCIG, Z. 105, 106
AKDEMIR, Ö. 105, 106
AKIVIS, T.M. 167
AKSENOV, V.N. 193
AKSENOV, V.V. 89
AKSU, A. 119
AKYOL, N. 105
AL-BAYARI, O. 129, 277, 278
ALADOS-ARBOLEDAS, L. 175
ALASTUEY, A. 178
ALBALADEJO, J. 159
ALBAREDE, F. 198, 199
ALBARELLO, D. 64, 65, 274
ALBERCA, L.F. 209
ALBEROLA, C. 167
ALBERS, F. 184, 280
ALBERTO, D. 193
ALBINI, P. 65
ALBRECHTSEN, H.J. 142
ALDANA, M. 99
ALEKSEEV, A.S. 87, 272, 273
ALEKSEEV, V.A. 273
ALEKSUTIN, M.V. 80
ALESHKOV, Y.Z. 258
ALESTRÖM, P. 148
ALETTI, V. 224
ALEXANDRESCU, M. 107
ALEXANDRIS, D. 229, 230, 280
ALEXEEV, A.D. 112
ALEXEEV, I. 212
ALEXEEV, I.I. 207, 212
ALEXEEV, V.A. 191
ALFARO, A. 276, 277
ALFIER, R. 232, 262
ALFONSI, L. 64, 72
ALFONSI, P. 270
ALFONSO-MUNOYERRO, M.A. 200
ALGRINIER, P. 97
ALIAJ, S. 279
ALIANI, S. 200
ALIBES, B. 267
ALICKE, B. 195
ALILA, Y. 152
ALIMOV, O.A. 210
ALISSE, J.-R. 258
ALLAART, M.A.F. 226
ALLAIN, C. 252
ALLAN, B. 195
ALLAN, B.J. 196, 197
ALLEMAN, L. 198, 199
ALLEMAND, P. 75, 80, 88, 237, 238
ALLEN, J.I. 198
ALLEN, J.T. 166
ALLEN, M. 252
ALLEN, M.R. 165, 202
ALLEN, R.M. 78
ALLERTON, S. 115
ALLEYNE, H. 222
ALLIN, N. 113
ALLIS, R. 118
ALMAR, I. 67, 218
ALMECIJA, C. 146
ALMEIDA, T. 109, 110
ALMENDROS, J. 278
ALONSO, E.E. 111
ALONSO, S. 268, 269
ALONSO-MEDINA, A. 94
ALPAY, Y. 65
ALPEROVICH, L. 114, 218
ALPERS, W. 167, 168
ALSOP, I. 76
ALTIERI, B. 247, 248
ALTWEGG, K. 242
ALVA, L. 99
ALVAREZ FANJUL, E. 200
ALVAREZ, J. 154
ALVAREZ-MARRON, J. 63, 120
ALVERSON, K. 181
ALVES, C. 187
ALVES, J. 183, 191
ALVES, M. 127
ALVES, O. 124
AMALVICT, M. 104
AMAN, V. 280
AMANI, A. 157
AMANIL, A. 188
AMANO, H. 71
AMANTIA, A. 279
AMATA, E. 217, 220, 221
AMATO, A. 88, 89, 93
AMBAR, I. 161
AMBAUM, M. 232, 261
AMBROISE, B. 158
AMBROSI, J.-P. 101
AMBROSIUS, B. 70
AMBROSIUS, B.A.C. 81, 133, 134
AMEGLIO, L. 79, 80
AMELUNG, F. 123
AMETISTOVA, L.E. 168
AMMANN, M. 194
AMORIM, V. 177
ANAGNOSTOU, E.N. 145
ANASTASIO, N. 186
ANCELLET, DG. 280
ANCELLET, G. 180, 229, 231
ANCORP WORKING GROUP 82
ANDERSEN, K.K. 198, 262
ANDERSEN, O. 125
ANDERSEN, O.B. 127, 130
ANDERSEN, P.H. 134
ANDERSON, C. 68
ANDERSON, D. 183, 191
ANDERSON, D.L.T. 191
ANDERSON, H. 70
ANDERSON, J. 250
ANDERSON, J.G. 231
ANDERSON, K. 236
ANDERSON, K.A. 213, 240
ANDERSON, L. 161
ANDERSON, L.G. 170
ANDERSON, P.S. 177, 258
ANDERSON, R. 249
ANDERSON, R.C. 251
ANDERTON, S. 152
ANDEWEG, B. 64
ANDRADE SANTOS, J. 191
ANDRADE, C. 267
ANDRE, J.-C. 201, 233-235
ANDRE, R. 217
ANDREEV, E.G. 193
ANDREEVA, E.S. 209
ANDREICHIKOV, B.M. 239, 243, 244
ANDREJCZUK, M. 203
ANDRES HERNANDEZ, M.D. 196, 197, 205, 206
ANDRETTA, V. 224
ANDREU, J. 156, 160
ANDREWS, M.D. 225
ANDRIAENS, P. 149
ANDRICEVIC, R. 141
ANDRIE, C. 161
ANDRIEU, H. 153
ANDRIEUX, P. 157, 158, 160
ANDRITSANOS, V.D. 131
ANDRONOVA, N. 226, 227, 232, 233, 262
ANFOSSI, D. 174
ANGELIER, J. 70, 74, 75, 82, 86, 274
ANGELL, J. 189
ANGERMANN, D. 81, 126
ANGULO-JARAMILLO, R. 158
ANGUY, Y. 108-110
ANIKIYEV, V.V. 149
ANISIMOV, M.V. 168
ANKAYA, O. 105, 106
ANLAUF, K. 194
ANNAMALAI, H. 192
ANNAN, J.D. 201
ANNEN, C. 94
ANNENKOV, S.YU. 263, 264
ANNWEILER, E. 149
ANQUETIN, S. 261
ANSAN, V. 238
ANSANA, S. 184
ANSCHUTZ, P. 199
ANSELMETTI, F.S. 108
ANSORGE, J. 63, 84
ANTHONY, T. 149
ANTICH, N. 156, 157
ANTONIOLI, F. 122
ANTONIOU, C. 229
ANTONOV, J.I. 163
ANTONOW, M. 98
ANTONOWICZ, L. 83
ANTORANZ, A. 163
ANTSIFIROV, A.I. 113
ANTSIFIROV, A.V. 112, 113
ANTSYFEROV, S.M. 167
ANYAMBA, E. 189
ANZENHOFER, M. 130
ANZIDEI, M. 90
AOUDIA, A. 64
APARINA, E.V. 196

INDEX

APAYDYN, N. 65
APEL, J.R. 263
APOTRIA, T. 76
APPEL, E. 65, 96, 97, 99-101
APPELGREN, B. 155
APPENZELLER, B. 151
APPENZELLER, C. 165
APPERT-COLLIN, J.C. 149
APPLEBY, G. 135
ARABELOS, D. 131
ARANEDA, M. 66
ARATTANO, M. 279
ARBOGAST, P. 179, 181
ARDELEANU, L. 91
ARDIZZONE, J. 189
AREFJEV, N. 156
ARELLANO, F. 126
ARGNANI, A. 63, 101, 117
ARGUS, D.F. 71
ARHAN, M. 161, 166
ARIN, L. 168
ARINGOLI, D. 275
ARINO, O. 107
ARIYA, P.A. 186, 194
ARKHIPKIN, A.V. 164
ARKHIPKIN, V.S. 168, 170
ARKOS, G.G. 238
ARLITT, R. 84
ARMADILLO, E. 77, 278
ARMAND, D. 153
ARMENGAUD, A. 262
ARMIENTI, P. 95
ARMIJO, R. 81, 123
ARMOR GROUP 79
ARNAEZ, J. 153, 154, 279
ARNAU, P.A. 168
ARNAUD, P. 160, 179, 269
ARNAULT, S. 125
ARNEODO, A. 254
ARNESEN, L. 74
ARNOLD, F. 196, 197
ARNOLD, G. 238, 241, 244, 249, 251
ARNOLD, K. 174, 175
ARNOLD, M. 123, 162
ARNOLD, T. 193
ARNOUX-CHIAVASSA, S. 167
ARPE, K. 191, 192
ARRAES-MESCOFF, R. 163
ARREGUI, J. 239
ARSADI, E. 114
ARTALE, V. 172, 173
ARTEMIEVA, I. 92
ARTESE, G. 277, 278
ARTHURTON, R.S. 123
ARTINANO, B. 177, 178
ARTINIAN, E. 157
ARTZNER, G. 224
ARVIDSON, R. 64
ARYKOV, A.A. 212
ASENCIO, N. 268
ASFIRANE, F. 80
ASHKENAZI, V. 123, 134
ASHTON, J.H. 98
ASIMOKOPOULOS, D. 176
ASMAR, S.W. 240
AST, A.L. 277, 278
ASTAKHOVA, N.L. 216
ASTERIADIS, G. 273
ASTIN, I. 184, 210
ASTOK, V. 168
ASTRALDI, M. 164
ASUDEH, I. 86
ATHANASSIADOU, M. 174
ATHANASSOULA, A. 248
ATHIAS, V. 163, 202
ATKINSON, P.M. 279
ATLAS, R. 189
ATREYA, S.K. 248
ATTIE, J.L. 186
AUAD, G. 181, 190
AUBERT, D. 253
AUBIER, M. 243
AUBINET, M. 176, 177
AUBOURG, C. 74
AUCLAIR, F. 172
AUDIGANE, P. 110
AUDOUBERT, J.-M. 200
AUFFRET, G. 120, 189
AUGLIERA, P. 79
AULANIER, G. 225
AURASS, H. 223
AURELA, M. 176, 177
AURIOL, F. 184
AUSTIN, J. 208, 225
AUZET, A.V. 157, 158
AVAKYAN, S.V. 67, 207
AVDIS, V. 81
AVENDAQO, M.S. 66
AVERBACH, V.S. 253
AVERBUCH, O. 100
AVIGAD, D. 102
AVINO, R. 93
AVKHADIEV, F.G. 140
AVOUAC, J.-P. 112
AVOUAC, J.P. 123
AVRAAM, D.G. 150
AXFORD, W.I. 214, 223
AYALA, C. 83
AYARZA, P. 78, 79
AZZARA, R. 89, 93
AZZARO, R. 274, 275
BAAG, C. 103
BABA, K. 118
BABADZHANOV, P.B. 246
BABBUCCI, D. 64, 65
BABEIKO, A.YU. 236
BABEYKO, A.A. 69
BABOUKAS, E. 204-206
BABUSKA, V. 70, 87
BACA, D. 115
BACH, J. 142
BACHELIER, E. 123
BÄCHLE, G. 110
BÄCHLER, D. 101
BÄCHTOLD, W. 148
BACIC, Z. 127
BACKHAUS, J.O. 168, 169
BACMEISTER, J.T. 208
BACRY, E. 254
BADA, G. 74
BADAL, J. 64, 65, 91
BADALYAN, O.G. 215
BADAUT-TRAUTH, D. 100
BADEWIEN, T. 173
BADGER, J. 179
BADULIN, S.I. 264
BAE, S.-H. 119
BAEHR, C. 180
BAER, F. 202
BAER, G. 102
BAER, M. 64
BAEY, J.M. 166
BAGENAL, F. 242
BAGLIANI, M. 232, 261
BAHMUTOV, V. 102
BAHR, K. 114
BAHUREL, P. 124, 130, 200
BAIER, F. 207, 208, 227
BAINES, K. 239
BAIS, A.F. 228
BAKAN, S. 184, 233
BAKER, C. 88
BAKER, H.C. 129, 134
BAKER, J.M. 194
BAKER, K.B. 217
BAKER, M.A. 148
BAKER, T.F. 122, 134
BAKHMUTOV, V. 99
BAKLANOV, A. 174
BAKUCZ, P. 253
BALA, A. 77
BALACHEVTSEV, M. 154
BALBONI, V. 199
BALDI, P. 90, 277
BALIS, D. 226, 261, 280
BALIVA, A. 237
BALLABRERA, J. 201
BALLANI, L. 104, 105
BALLE, J. 166
BALLESTER, J.L. 257
BALLING, N. 66, 70, 86
BALLSCHMITER, K. 204, 205
BALLUCH, M.G. 261
BALMASEDA ALONSO, M. 124
BALMASEDA, M. 183, 191
BALMFORTH, N.J. 257
BALOGH, A. 213-215
BALSIGER, H. 242
BALTAKOV, G.K. 65
BALTAZAR, M. 234, 235
BALTENSPERGER, U. 194, 280
BALUTEAU, J.P. 248
BAMERT, K. 214
BANASZKIEWICZ, M. 214, 240, 245
BANAT, P. 256
BANDONNEAU, Y. 260
BANDY, B. 232, 262
BANERDT, W.B. 249
BANERJEE, S.K. 99
BANKS, C.J. 73
BANKS, M.K. 150
BANKS, R.J. 113
BAPTISTA, M.A. 267, 274
BAPTISTA, P. 81
BAR-SEVER, Y.E. 124, 129
BARABASH, V. 207, 208
BARAILLE, R. 125
BARAN, L.W. 130, 134, 219
BARAN, P. 136
BARANOV, V.B. 214
BARATTA, G.A. 242, 243
BARBANO, M.S. 274, 278
BARBARESCO, F. 234, 235
BARBERI, G. 92
BARBERO, S. 270
BARBETSEAS, S. 169
BARBIAC, TH. 158
BARBIERO, R. 179
BARBIN, Y. 242
BARCELONA, M.J. 150
BARCKICKE, J. 202
BARCZEWSKI, B. 150
BARD, P.-Y. 277
BARDOSSY, A. 143-145, 148
BARDOUKI, H. 204, 205
BARDOUX, G. 158
BARET, F. 107, 154, 157
BARFRED, M. 193
BARGAGLI, A. 179, 201
BARGE, P. 248, 249
BARIAC, T. 158
BARIS, S. 64
BARKA, A. 81, 275
BARKER, J.A. 139
BARKER, J.F. 149
BARKER, P.A. 99
BARKIN, YU.V. 71, 127, 128
BARKMEIJER, J. 203
BARLIER, F. 134
BARLIK, M. 131, 137, 138
BARNES, A. 215
BARNES, J. 249
BARNES, J.R. 249
BARNIER, B. 162, 163, 166, 181
BARON, PH. 226
BARQUINS, M. 74
BARRACLOUGH, B.J. 246
BARRETT, E.C. 155
BARRETT, J. 250
BARRIE, L. 194
BARRIE, L.A. 193
BARRIO-ALVERS, L. 66, 83
BARRIOT, J.P. 237
BARROS, N. 280
BARROSO, C.S.F. 177
BARROW, C.H. 242
BARSUKOV, P. 108
BARTELS, J. 110
BARTHELEMY, E. 168
BARTHELET, P. 165, 183
BARTHELMES, F. 122, 133
BARTHES, V. 100
BARTHOLY, J. 191
BARTLETT, C. 94
BARTOLINI, C. 160
BARTOLOME, R. 115, 116
BARTON, C.C. 255
BARUCCI, M.A. 246, 248

BARYKIN, S.K. 73
BARYLNIKOV, A. 86
BASBERG, L. 151
BASCHEK, B. 172
BASE, S.D. 242
BASHELEISHVILI, L. 275
BASIC, T. 127, 131
BASILE, C. 75
BASILE, I. 198
BASILE, J. 198
BASILE, V. 103
BASILEVSKY, A.T. 236, 237, 251
BASILI, A. 89
BASILI, R. 89
BASIN'96 WORKING GROUP 83, 84
BASKOUTAS, I.G. 88
BASNETT, T.A. 190
BASSFORD, M. 195
BASSINOT, F. 65
BASTET, G. 141
BASTIN, M.E. 256, 265
BASTOS, L. 81, 122, 123, 127, 130, 200, 201
BASTRUP-BIRK, A. 177, 229
BATALLA, R.J. 143, 160
BATCHVAROVA, E. 173
BATES, J.R. 190, 191
BATES, N.R. 163
BATH, A.H. 140
BATHELET, P. 183
BATHELMIE, B. 176
BATHURST, J.C. 158, 159
BATRAK, G. 144
BATRAK, G.I. 141
BATS, M. 122
BATT, C. 103
BATTAGLIA, A. 184
BAUER S. 262
BAUER, D. 194, 195
BAUER, E. 182
BAUER, H.-S. 192
BAUER, P. 179
BAUER, S.J. 236, 238-240
BAUGH, B. 186
BAUGUITTE, S. 232, 262
BAUMANN, K. 280
BAUMANN, R. 280
BAUMANN, T. 142, 147
BAUMERT, H. 200
BAUMGARTEL, A. 240, 241
BAUMGÄRTEL, K. 213, 215, 222
BAUMGARTEN, G. 227
BAUMGARTNER, M. 125, 126, 155
BAUSKE, R. 240
BAUTISTA, S. 159
BAUWENS, W. 153
BAVIERE, M. 142
BAYER, R. 134, 162, 163
BAYER, U. 73, 74, 76, 83
BAYOU, B. 102
BAZILEVSKAYA, G. 207
BAZIN, S. 117
BAZZOCCHI, F. 279
BEAN, C. 252
BEAN, C.J. 87, 88
BEARD, A.G. 209
BEAUDOING, G. 147
BEAUDUCEL, F. 94
BEAUFORT, L. 65
BEAUMONT, C. 80, 81
BEAUMONT, M. 155
BEAUVAIS, A. 253
BEBLO, M. 107
BECAGLI, S. 171
BECCHI, I. 279
BECK, A. 208, 232, 262
BECK, C. 190
BECK, L. 98, 100
BECKER, G. 227
BECKER, H. 102
BECKER, K. 197, 198, 250
BECKER, K.-H. 197, 198
BECKER, M. 123, 129, 134, 136, 137
BECKER, T. 250
BECKERS, J.-M. 166, 172
BECKERS, J.M. 172, 260
BECKMANN, A. 171
BEDIDI, A. 123
BEDJANIAN, Y. 194, 195
BEDJANIAN, YU. 194
BEDLINGTON, D. 123, 134
BEDNAR, J. 261
BEDRICH, S. 124, 135, 219
BEEKMAN, F. 72-74
BEEKMANN, G. 229
BEEKMANN, M. 229, 231, 262
BEER, J. 225
BEGHEIN, C. 104
BEGIN, C. 275, 279
BEHNKE, W. 196
BEHR, O. 154
BEHR, P. 194
BEHRA, PH. 151
BEHRMANN, J.H. 76
BEICHERT, P. 194, 195
BEILECKE, T. 84
BEILECKE, TH. 83
BEINE, H.J. 228
BEISMANN, J.-O. 162
BEKKI, S. 232, 262
BEKLEMISHEV, A.B. 122
BELARDINELLI, F 181
BELARDINELLI, M.E. 74, 275
BELDJOUDI, L. 155
BELENKAYA, E.S. 217
BELENKAYA, I. 119
BELENOVICH, T.Y. 275
BELIAEVA, E.A. 272
BELIN, S. 108
BELKNAP, D.F. 71
BELL, J. 249
BELLAICHE, G. 120
BELLAVIN, O.V. 106
BELLOT, J. 142, 143
BELLUCCI, F. 277
BELLUME, M. 179
BELMONT, G. 222, 223
BELO, M. 191
BELOGOLOV, V.S. 228
BELOUSOVA, A.P. 147, 155
BELOVA, N.I. 210
BELTON, M. 237
BELTON, M.J.S. 237
BELVISO, S. 204-206
BELYAEV, P.P. 210, 216
BELYAVSKY, V.V. 112, 113
BELZ, S. 155
BEN JELLOUL, M. 265, 266
BEN OTHMAN, D. 157
BEN-ATIG, F. 101
BEN-AVRAHAM, Z. 64, 74, 81, 118, 119
BENAVENTE, J. 142, 143, 146
BENCZE, P. 67, 209, 218
BENDER, M.A. 255
BENDJOURDI, H. 146
BENDYNA, M. 137, 138
BENE, J. 259
BENECH, B. 173, 174
BENEDEK, J. 105
BENEDICKTER, H.R. 148
BENESTAD, R.E. 191
BENFORD, D. 243
BENGTSSON, L. 129, 181, 189, 192, 193
BENIGUEL, Y. 220
BENIKOV, E. 263
BENILOV, E. 264
BENJAMIN, S.G. 202, 234
BENKHOFF, J. 241
BENKIRAN, M. 172
BENNETT, A. 250
BENTAMY, A. 182
BENVENISTE, J. 125, 126
BENVENUTO, F. 254, 268, 279
BENZ, H.M. 92
BENZ, W. 248
BENZI, R. 254, 255
BERANGER, K. 162
BERARDI, R. 89
BERASTEGUI, X. 73
BERBIGIER, P. 158, 177
BERCOVSKA, V. 66
BEREST, P. 158
BEREZUTSKII, A.V. 168, 169, 171
BERG, G. 156
BERGAMASCO, L. 264, 267
BERGAMINI, C. 260
BERGEAT, F. 83
BERGER, A. 111
BERGER, F.H. 185, 192
BERGER, J. 107
BERGERAT, F. 75, 84
BERGERET, V. 232, 262
BERGFJORD, E. 76
BERGMAN, S. 105, 106
BERGMANN, J.C. 174
BERGOT, T. 181
BERGSSON, B.H. 78
BERHO, F. 194, 195
BERKOWITZ, B. 147
BERNABE, Y. 139
BERNARD, D. 108-110, 139, 141
BERNARD, M.L. 110, 112
BERNARD, P. 146
BERNARD, T. 113
BERNARDI, D. 110
BERNARDINI, F. 274
BERNARDINO, M.C. 144
BERNASCONI, S. 225
BERNDT, C. 116
BERNE, S. 120
BERNHARDT, K. 173
BERNHOFER, CH. 146, 176
BERNIER, F. 112
BERNSTEIN, S. 116
BERNSTEN, T. 233
BEROUD, J.-M. 145
BERRE, L. 202, 203
BERRESHEIM, H. 196, 197
BERRINO, G. 93, 277, 278
BERROCOSO, M. 134
BERRY, P.A.M. 127, 135
BERRY, S.T. 210
BERSCH, M. 162
BERTAUX, J.L. 213, 214, 226, 242
BERTEL, L. 219, 220
BERTHELIER, J.-J. 220, 221
BERTHELIER, J.J. 222
BERTHELOT, B. 107
BERTHIER, E. 153
BERTHOD, M. 115
BERTHOMIER, M. 223
BERTIN, N. 186, 187
BERTOTTI, G. 63, 73
BERTOTTI, L. 267
BERTRAND, C. 183
BERTRAND, E. 80, 93
BERTUZZI, P. 146
BERUBE, M. 135
BERZINS, V. 168
BESLIER, M.O. 79, 115, 116
BESLIER, X. 116
BESSEMOULIN, P. 157, 158, 179
BESSER, B.P. 216
BEST, A. 106, 107
BEST, M.J. 202
BEST, S.E. 166
BESUTIU, L. 106, 107
BETANCOR GROTHE, M. 184
BETHERS, U. 139, 144, 168
BETHOUX, J.P. 193, 199
BETHOUX, N. 79, 81, 86
BETTA, R. 213
BETTAHAR, M. 142
BETTS, A.K. 177
BETTS, R. 193
BETZL, N. 77
BEUTLER, G. 124, 128
BEUZIT, J.-L. 248
BEVEN, K. 140, 152, 157
BEVEN, K.J. 269
BEYERLE, G. 204, 205, 208
BEYERLE, U. 190
BEYRICH, F. 175
BEZARD, B. 246-248
BEZERRA, F.H.R. 71
BGR'S MARINE GEOPHYSICAL GROUP 115
BHANDARI, N. 245

BIANCALE, R. 124
BIANCHI, S. 71
BIANCO, F. 88, 92
BIANCO, G. 64, 134, 135
BIBIKOVA, T.N. 192
BIBILASHVILI, T. 173
BIBRING, J.P. 241
BIBUS, E. 96, 97
BICHLER, M. 94
BICKMEIER, W. 185
BICSKEI, T. 107, 114
BIDOGLIO, G. 147
BIELIK, M. 67, 85
BIELLA, G. 86, 87
BIESECKER, D.A. 225
BIESSY, B. 166
BIESTER, H. 150
BIGALKE, J. 112, 114
BIGG, G.R. 179
BIHAM, O. 244
BIJWAARD, H. 63, 67, 69
BILGE, A.H. 219
BILIARSKA, I. 105, 106
BILIARSKA, R. 105, 106
BILITZA, D. 219
BILLEBAUD, F. 247
BILLIEN, M. 69
BILLIOTTE, J. 111
BINA, M. 102
BINDER, A.B. 245, 246
BINGHAM, R. 222, 223
BINGLEY, R.M. 123, 134
BIRAUD, Y. 238
BIRD, M.K. 224
BIRDIE, T. 152
BIRGÖREN, G. 65
BIRKE, M. 101
BIRKETT, H.R. 180
BIRNBAUM, G. 169
BIROL, F. 125
BIRON, PH. 158
BIRT, C.S. 77
BIRYULINA, M.S. 90
BIRYUSHOV, B. 208
BISCAYE, P. 198
BISCAYE, P.E. 198
BISHOP, C. 180, 181
BISHOP, J. 248
BISHOP, K. 152, 153
BISLING, P. 205, 206
BISTER, A. 205, 206
BITHELL, M. 232, 261
BITRI, A. 79
BITTARELLI, G. 89, 90
BITYUKOVA, L. 101
BIVER, N. 243
BIZOUARD, C. 132
BJERG, P.L. 149
BJORAKER, G.L. 247
BJÖRK, G. 170
BJORNA, N. 211
BLACK, S. 95
BLACKBURN, M. 188
BLACKMON, T. 250, 251
BLACKWELL, D.D. 110
BLADE, I. 190
BLAGOVESCHENSKY, D.V. 211
BLAIR, S. 109
BLAISON, D. 225
BLAKELY, R.J. 70
BLAMART, D. 190
BLANC, E. 209
BLANC, G. 199
BLANC, M. 223
BLANC, P.L. 151
BLANC-VALLERON, M.-M. 119
BLANCHET, I. 202
BLANCHET, P. 234
BLANCO, A. 237
BLANCO, M. 269
BLANCO, M.M. 162
BLAYO, E. 201, 202
BLAZKOVA, S. 269
BLECKA, M.I. 237, 244
BLECKI, J. 217, 220-222
BLELLY, P.L. 210, 217
BLESA, F. 124
BLEWITT, G. 81, 129, 130
BLINDHEIM, J. 165
BLITNESOV, M. 78, 79
BLITZKOW, D. 131
BLIX, T.A. 209
BLOCK, J.-C. 150
BLOCK, J.C. 151
BLOCK, M. 115, 117
BLOEMENDHAL, J. 99
BLOOMFIELD, J.P. 139
BLÖSCHL, G. 153, 154
BLOSS, W.J. 196
BLOXHAM, J. 98
BLUE, J. 250
BLUMEN, W. 174, 175, 180
BLUNDELL, D.J. 83, 84
BLYTH, E. 148, 176
BOAIN, R. 200
BOBANOVIC, J. 172, 173, 201
BOBROVNIKOV, S.YU. 212
BOCCALETTI, M. 64, 75, 277
BOCCHIALINI, K. 224
BOCHNICEK, J. 218
BOCHSLER, P. 213, 214, 224
BOCK, G. 69, 84
BOCK, J. 125, 126
BOCK, J.H. 162
BOCK, Y. 123, 128, 129, 134
BOCKELEE-MORVAN, D. 243, 247, 248
BOCQUILLON, C. 253
BODDENBERG, A. 205, 206
BODMER, R. 224
BODRI, L. 65, 269
BOEBEL, T. 130, 200, 201
BOEDECKER, G. 130
BOEGH, E. 154
BOEHM, M.H. 217
BÖER, A. 135
BOER, G. 203
BOERING, K.A. 231
BOERNER, D.E. 92, 114
BOERNER, R. 200
BOESEN, A. 116
BOETTCHER, J. 148
BOEV, A.G. 243
BOFFA, J.M. 252
BOGAART, P.W. 143
BOGDANOV, A.T. 214, 223
BOGDANOVSKI, O. 245
BOGUSZ, J. 136-138
BOHLEN, TH. 87
BOILLOT, G. 116
BOIS, P. 269
BOISSARD, C. 187
BOISSON, J.Y. 111
BOISSONNAT, J.-D. 79
BOJKOV, B.R. 228, 230
BOJSKOV, D.I. 223
BOKELMANN, G. 85
BOLDRIN, A. 199
BOLLIGER, C. 150
BOLOGNESI, L. 94
BOLTON, S.J. 241
BOM NIELSEN, S. 68, 70
BOMBOI-MINGARRO, M.T. 187, 188
BONACCORSO, A. 278
BONAFE, U. 179, 226
BONAFEDE, M. 92, 93, 95
BONASONI, P. 179, 226, 227, 231, 261
BONATTI, E. 116, 117
BONAZZA, D. 94
BONCIO, P. 90
BONDARENKO, G.YE. 80
BONDARENKO, V. 137, 138
BONEKAMP, H. 171
BONELLI, P. 203
BONEV, T. 242
BONGIOANNINI CERLINI, P. 268
BONGIOVANNI, G. 89
BONI, G. 145, 269, 270
BÖNING, C. 161, 162
BÖNING, C.W. 162
BONINO, G. 225, 245
BONKHOFF, K. 150
BONNEFILLE, R. 190
BONNEFOND, J.M. 158, 177
BONNEFOND, P. 129, 134
BONNET, M.P. 148
BONNETON, P. 258
BONNIER, M. 258
BONNISSEL-GISSINGER, P. 151
BONSANG, B. 187, 205, 206
BONTEMPS, B. 255
BONVALOT, S. 122, 278
BONY, S. 183
BOOKHAGEN, B. 275, 276
BOON, J.G. 200, 202
BOONE, C. 201
BOOTH, J. 118
BOOTH, J.S. 118
BOOTH, S.J. 123
BORDERIE, P. 123
BORDI, J.J. 124
BORDONABA, A.P. 153, 154, 269
BORDONI, P. 75
BORE, J.-M. 69
BORETTI, E. 72
BOREVSKY, L.V. 78
BORGA, M. 145, 271
BORGHINI, M. 181
BORGSTROM, S. 277, 278
BORISENKOV, E. 229
BORISOV, A.S. 97
BORISOV, N. 216
BORJARIU, R. 183
BORKOWSKI, J. 228
BORMANN, H. 145, 146
BORN, K. 190
BORNAND, M. 141
BORODKOVA, N. 217, 220-222
BORODKOVA, N.L. 220-222
BOROVIKOV, V.A. 254
BOROVKOV, V. 165
BOROVSKY, M.YA. 176, 271
BORRADAILE, G.J. 96, 97
BORREGO, C. 185, 280
BORRMANN, S. 230, 231
BORTOLUCCI, E. 129, 267, 268
BORTOLUZZI, G. 117
BORY, A. 198
BORZA, T. 136
BOS, B. 108
BOS, M.S. 122
BÖSCH, H. 184
BOSCH, M. 79
BOSCH, W. 125, 126, 131, 132, 162
BOSCHER, D. 211, 212
BOSCHI, E. 72, 89, 104, 274
BOSI, V. 89, 90
BOSINGER, T. 216, 220, 221
BOSKA, J. 209
BOSMA, T.N.P. 150
BOSQUED, J.M. 214
BOSTROM, R.C. 238
BOSY, J. 136
BOTHMER, V. 223
BOTSUL, A.I. 149
BOTTAI, L. 145
BOTTERO, J.Y. 101
BOTTKE, W.F. 246
BOTVINOVSKY, V.V. 97
BOUBNOV, G.G. 166
BOUCHE, V. 258
BOUCHER, C. 134
BOUCHER, O. 183, 233, 261
BOUCHETTE, F. 111
BOUCHON, M. 88-90
BOUCHOT, V. 79, 80
BOUDJADA, M.Y. 243
BOUDON, G. 278
BOUDON, Y. 134
BOUGEAULT, P. 174
BOUGERET, J.-L. 242
BOUILLE, F. 124, 128
BOUILLIN, J.P. 63
BOUISSOU, S. 74
BOULANGER, J.-P. 191
BOULEGUE, J. 158
BOULOUBASSI, I. 119, 199
BOULYTCHOV, A. 112
BOUMBAR, N. 87

BOUNAMA, CH. 237
BOUNIOL, D. 180
BOUR, O. 74, 139
BOURAOUI, F. 158
BOURASSA, M.A. 182
BOURBILLON, A. 219
BOURCIER, M. 122
BOURDARIE, S. 211, 212
BOURDARIE, S.A. 211
BOURGEOIS, O. 75
BOURGUIGNON, A. 80
BOURHIM, S. 178
BOURIAK, S.V. 119
BOURILLET, J.F. 267
BOURLES, B. 161
BOUROVA, E. 108
BOURQUI, M. 231
BOURRIE, G. 151
BOURUET-AUBERTOT, P. 257
BOUTEN, W. 110, 146
BOVENSMANN, H. 225
BOVILLE, B.A. 183, 193
BOVO, S. 270
BOWELL, E. 246
BOWER, A.S. 161, 166
BOY, J.P. 127
BOYARCHUK, K.A. 273
BOYD, T. 170
BOZZANO, F. 276
BOZZO, E. 77, 278
BRACCO, A. 259, 265, 266
BRACKBILL, J.U. 222
BRACONNOT, P. 169, 190
BRAESICKE, P. 208
BRAITENBERG, C. 104, 105
BRAMSTEDT, K. 226, 227
BRANCALEONI, E. 186
BRANCOLINI, G. 90, 114
BRAND, M. 135, 136
BRANDSMA, T. 145
BRANDT, J. 177, 213, 229
BRANDT, P. 167, 168
BRANDT, U. 97, 98
BRANKART, J.M. 172, 173
BRANOVER, H. 179, 265
BRAS, R.L. 252
BRASSEUR, G.P. 225, 226, 230
BRASSEUR, P. 201
BRATH, A. 146, 154
BRAUD, I. 157, 158
BRAUERS, T. 195, 204-206
BRAUN, H.M. 245
BRAUN, I. 94
BRAUN, J. 75
BRAVO, I. 187, 188
BRAZIER, R.E. 155
BRECHLER, J. 261
BREEN, A.R. 213
BREGMAN, A. 228, 230
BREIL, M. 194
BREITZKE, M. 120
BREKKE, P. 213, 224, 225
BREMER, H. 209
BREMER, J. 207
BRENGUIER, J.-L. 185, 192, 258
BRENNINKMEIJER, C.A.M. 209
BRESCH, D.N. 165
BRESSON, L.-M. 158
BRETHERTON, C.S. 165
BREUER, D. 236
BREUNING, M. 66, 67
BREUS, T.K. 223
BREVDO, L. 263, 272
BRICAUD, A. 126
BRIDGES, N.T. 249, 251
BRIE, A. 113
BRILLY, M. 270
BRIMICH, L. 92
BRINCA, A. 223
BRINDLEY, J. 260
BRINI, F. 204
BRINKOP, S. 233
BRITO, V.P. 252
BRITT, D. 249-251
BRIX, M.R. 81
BRKIC, M. 131
BRNAND, A. 141
BROCCHINI, M. 258, 263
BROCHER, T.M. 86
BROCKMANN, U. 143
BROGNIEZ, G. 184
BROJEWSKI, R. 178
BRON, E. 135
BRÖNNIMANN, S. 228, 229
BRONSTERT, A. 154, 155
BROOKE, T.Y. 247, 248
BROOKS, H.E. 256
BROOKS, S. 271
BROSIUS, J. 224
BRÖSKE, R. 194, 195
BROSS, C. 96, 97
BROUSSEAU, C. 220
BROWN, D. 83
BROWN, J.M. 202
BROWN, M. 94, 111
BROWN, P.A. 155
BROWN, R. 75
BROWN, R.A. 174
BROWN, S.J. 165
BROWNING, K.A. 179, 180
BRUAND, A. 140
BRUCATO, J.R. 242
BRÜCKNER, J. 249
BRUDERER, C. 139
BRUECKNER, H. 103
BRUEN, M. 144, 155
BRÜGGEMANN, E. 176
BRÜHL, C. 226
BRÜHL, CH. 226
BRUHN, C. 103
BRUHN, D. 111
BRUN, E. 220
BRUN, J.P. 79
BRUNEL, M. 92
BRUNET, C. 81, 163
BRUNET, D. 69
BRUNET, G. 203, 232, 261, 266
BRUNET, M.-F. 73
BRUNET, Y. 158, 177
BRUNETON, M. 97
BRUNI, F. 275
BRUNIA, A. 150
BRUNNER, D. 231
BRUNO, J. 141
BRUNO, R. 215
BRUNORI, C.A. 279
BRUNS, P. 236
BRUSTET, J.M. 186
BRUTON, A.M. 130
BRUYNINX, C. 134
BRUZEK, V. 189
BRYAN, F. 127
BRYAN, G.H. 180
BRYNILDSEN, N. 224, 225
BRYUKHANOV, A.M. 112
BRZEZINSKI, A. 132
BRZOVIC, N. 179
BUAT-MENARD, P. 199
BUBNIAK, I. 85
BUBNOVA, N.YA. 68
BUCH, W.R. 68
BUCHA, V. 218
BUCHERT, S.C. 209, 210, 215
BUCHMANN, B. 177
BÜCHNER, J. 221-223
BUCHTELE, J. 152
BUCKLEY, A. 148
BUCKLEY, A.M. 222
BUCKTON, D. 235
BUDETTA, G. 278
BUDNICK, E. 220, 221
BUDNICK, E.YU. 217, 220, 222
BUDNIK, E. 220
BUDNIK, E.YU. 221
BUDNIK, L. 217
BUDWEG, M. 84
BUDZIEN, S. 241
BUECHNER, J. 221
BUENESTADO, P. 173, 257
BUERKI, B. 129
BUES, M.A. 142
BUFFET, G. 115
BUFFETT, B.A. 118, 133
BUFORN, E. 88
BUGLI, E. 279
BÜHLER, S.A. 230
BUISHAND, T.A. 145
BUITER, S.J.H. 64
BUIZZA, R. 203, 204, 255
BUJOK, O. 230, 232, 261
BUKATOV, A.A. 170, 258
BUKATOV, A.E. 170, 258
BUKATOV, A.E, 170
BUKREEVA, E. 71
BULAKH, E. 105
BULATOV, V.V. 168, 254
BULATOVA, N.P. 69
BULGAKOV, S.N. 167
BUMKE, K. 181
BUNGUM, H. 77
BUONGIORNO, A. 107
BUONGIORNO-NARDELLI, B. 172, 173
BUONSANTO, M.J. 209, 218
BURCHARD, H. 259
BURDE, G.I. 179
BURESOVA, D. 218
BURG, J.-P. 79
BURGDORF, M. 246-248
BURGDORF, M.J. 247, 248
BÜRGER, G. 182
BURGERS, G. 125, 126, 191
BURIEZ, J.-C. 184
BURIEZ, J.C. 192
BURKEPILE, J.T. 225
BURKERT, J. 196, 197, 205, 206
BURKHARDT, H. 109
BÜRKI, B. 123
BURLANDO, P. 144, 145, 153, 154
BURLINI, L. 109, 110
BURLO, Z. 75
BURMISTROV, V.B. 134
BURNET, F. 185
BURNHAM, D. 234
BURNS, G.B. 217
BUROV, E. 72, 79
BUROV, E.B. 74, 79, 82
BUROV, G. 71, 77, 78
BURRATO, P. 274
BURROWS, A. 248
BURROWS, J.P. 194-197, 205, 206, 225-227
BURTON, A. 154
BURTON, M.E. 213
BURWELL, D. 200
BUS, Z. 64
BUSCAIL, R. 199
BUSCHE, H. 84
BUSEN, R. 233
BUSKE, S. 87
BUSSAY, A. 144
BUSSEY, D.B.J. 245, 246
BUSSOLETTI, E. 242, 244, 247
BUSUIOC, A. 145
BUTA, C. 154
BUTCHART, M. 208
BUTCHART, N. 225
BUTERA, I. 140
BUTLER, E.C. 151
BUTLER, P. 248
BUTLER, S.L. 263
BUTS, A.V. 216
BUTS, V.A. 216
BUTZIN, M. 161
BUZORIUS, G. 192
BUZZELLI, M. 149
BUZZI, A. 178, 179
BYRDINA, S. 114
BZOWSKI, M. 213, 214
CAAMERAS, N. 148
CABANAS, I. 77
CABANE, M. 239, 244
CABOS, W. 162, 166, 191
CABOT, F. 107
CABRIT, B. 219
CACCIAMANI, C. 268
CACCIANI, M. 174, 261
CACHCO, M. 267
CACHIER, H. 280

INDEX

CACIOLI PACISCOPI, G. 279
CACON, S. 136
CADEK, O. 69
CADER-SROKA, B. 243
CADET, J.-P. 81
CADIMA, I. 280
CAHALAN, R. 184, 185
CAHALAN, R.F. 253, 254, 257
CAHILL, M. 232, 262
CAIELLI, G. 87
CAILLOL, P. 258, 266
CAISSO, P. 234
CAKIR, O. 69, 70
CALADO, T.J. 107
CALAIS, E. 77, 78, 81, 82, 123, 130, 133, 134
CALANCA, P. 174, 197, 198
CALCAGNO, PH. 79, 80
CALCARA, M. 199
CALCUTT, S.B. 239
CALINI, A. 267
CALISESI, Y. 226, 227
CALISSE, P.G. 174, 261
CALLEJA, L. 109
CALMANT, S. 69
CALMAR SHIPBOARD SCIENTIFIC PARTY 120
CALMELS, P. 147
CALON, T. 119
CALOZ, F. 195
CALPINI, B. 228, 261
CALTAYUD, A. 229
CALVER, A. 270
CALVERT, P. 152
CALVET, J.-C. 146, 157, 176
CALVET, J.C. 157
CALVETE, D. 263
CALVO, E. 229
CAMACHO, J.C. 125, 130
CAMASSI, R. 65, 274
CAMBERLIN, P. 65
CAMERLENGHI, A. 90
CAMERON, D.S. 269
CAMERON-SMITH, P.J. 239
CAMMAS, J.-P. 180, 231, 261
CAMMAS, J.P. 179
CAMMERAAT, L.H. 270, 271
CAMPANA, M.E. 148
CAMPBELL, J. 134
CAMPILLO, M. 74, 79, 80, 123
CAMPIN, J.-M. 189
CAMPINS, J. 179
CAMPISTRON, B. 173, 174
CAMPLING, P. 154, 155
CAMPOS, J. 123
CAMPOS, J.F. 164, 165
CAMPOS, R. 139
CAMPOS-COSTA, A. 276
CAMPS, P. 97
CAMPUZANO-JOST, P. 194
CAMY-PEYRET, C. 227
CANABATE, M. 91
CANALES, J.P. 115-117
CANALS, M. 109
CANAS. J.A. 91
CANAS, J.A. 103, 276, 277
CANDE, S.C. 119
CANDELA, L. 142, 156
CANDER, L.R. 219
CANDER, LJ.R. 219, 220
CANDON, L. 100
CANEPA, E. 178
CANEVA, G. 278
CANIAUX, G. 177, 181, 201
CANIZARES, R. 201
CANNAT, M. 116, 119
CANNON, P. 210
CANNON, W.H. 135
CANOSA-MAS, C.E. 194, 195
CANSI, Y. 66
CANTALAPIEDRA, I.R. 264
CAO, J.B. 222
CAPACCIONI, B. 95
CAPALDI, G. 93
CAPARRINI, F. 279
CAPDEROU, M. 184
CAPILLA, J. 160
CAPILLA, J.E. 140, 156
CAPONE, M. 277, 278
CAPORALI, A. 137, 138
CAPORALI, E. 279
CAPPELAERE, B. 153, 157
CAPRA, A. 123, 129, 278
CAPUANO, P. 93, 277
CAQUINEAU, S. 280
CARAMELO, L. 191
CARBONE, D. 278
CARBONE, V. 215
CARBONELL, R. 63, 86, 87, 115
CARDA, J. 178, 199
CARDIN, PH. 98
CARDINALI, M. 279
CARDON, K. 125, 126
CARDONA, F. 150
CARDOSO, R.M.A.P. 176
CARENA, E. 259
CARIGNAN, J. 198
CARILLO, A. 179, 201
CARISSIMO, B. 173, 174, 177
CARL, P. 191, 192
CARL, S.A. 194
CARLIE, G. 82
CARLSON, B. 135
CARLSON, C. 217, 236
CARLSON, C.A. 163
CARLSON, C.W. 240
CARLSON, R. 237
CARLSON, R.W. 237, 239
CARME, S. 202
CARMINATI, E. 64
CARMONA, E. 88
CARMONA, X. 92
CARNEC, C. 126
CARNEVALE, G. 266
CARNEVALI, M. 150
CARPENTER, L. 194, 195
CARPENTER, L.J. 195
CARR, F.H. 256
CARR, M.H. 237
CARRACEDO, J.-C. 98
CARRACEDO, J.C. 278
CARRARA, G. 117
CARRASCO, J.M. 94
CARRATALA, A. 178, 229
CARRERA, J. 140, 150
CARRERA, P. 149
CARRERA-RAMIREZ, J. 140
CARRETERO ALBIACH, J.C. 200
CARRICO, C.M. 229
CARRIERES, T. 170
CARRILHO, F. 88
CARRIO SCHAFFHAUSER, E. 109
CARROLL, J.A. 67
CARROLL, M. 163
CARROLL, M.R. 94, 95
CARROZZO, M.T. 103
CARSLAW, K.S. 227
CARSLAW, N. 196, 197
CARSWELL, A.I. 208
CARTON, X.J. 168, 266
CARTON,X. 266
CARTWRIGHT, J.A. 111
CARTWRIGHT, J.H.E. 259
CASADEI, F. 91
CASADIO, S. 174, 261
CASALE, G.R. 228
CASALE, R. 269
CASANAOVA, I. 245
CASAS, A. 77, 105, 106, 115, 155, 276
CASELLES, J.O. 276
CASERO, N. 116
CASERTA, A. 89, 90, 277
CASIERI, A. 159
CASITAS, S. 172
CASPARY, H.J. 269
CASSARDO, C. 193, 269
CASTAGNOLO, D. 93, 94
CASTALDINI, D. 276
CASTANHEIRA, J.M. 191
CASTELLANO, M. 88, 92
CASTELLARI, S. 129, 172, 173, 259
CASTELLON, A. 168
CASTILLA, R. 264
CASTILLO, J. 68
CASTILLO, V. 152, 159
CASTILLO, V.M. 152, 159
CASTORINA, A.C. 243
CASTRACANE, P. 174, 261
CASTRO, I.P. 174
CATALAN M., M. 124, 125
CATALAN P.-U., M. 124, 125
CATALAN P.U., M. 130
CATALAN, M. 130
CATANI, F. 252
CATHELINEAU, M. 113
CATHELS, L.M. 110
CATSAMBAS, A. 229
CATTANEO, M. 79, 82, 86, 89, 90, 93
CATTELL, C. 217
CATTIN, R. 81, 110
CAULFIELD, C.P. 258
CAULLIEZ, G. 263
CAUTENET, G. 177
CAUTENET, S. 177
CAUTENOT, S. 186
CAUVIN, C. 79, 80
CAVA, D. 175
CAVALERI, L. 267
CAVALLIERI, D.J. 170
CAVALLO, A. 269, 270
CAVE, M. 111, 112
CAYAN, D. 181
CAYET, A. 158
CAYET, S. 158
CAYOL, V. 92
CAYRE, O. 65
CAZENAVE, A. 124, 128, 129
CAZZARO, R. 271
CEBALLOS, A. 153
CECCA, F. 102
CECCHINI, S. 225
CECIC, I. 274
CEDERLOEF, U. 168
CEDERLÖF, U. 168
CELARIER, E.A. 228
CELERIER, B. 78
CELIA, A. 187
CELLE, H. 145
CELLO, G. 81, 89
CELORIO, C. 109
CENNI, N. 95
CERISIER, J.C. 210
CERMAK, V. 65, 66, 269
CERQUEIRA, M.A. 199
CERTEL, R. 103
CERV, V. 114
CESARI, D. 268
CESARI, R. 177, 259
CESARI, V. 191
CESARINI, C. 168
CESCA, S. 70
CEULEMANS, R. 177
CHABANNA, J. 160
CHABOUREAU, J.-P. 180
CHADHA, R.K. 110
CHADOEUF, J. 148
CHAFFARD, V. 108
CHAGNON, G. 241
CHAIKOVSKY, I. 114
CHAIX, L. 195
CHAIZY, P.A. 214
CHALLINOR, A.J. 174
CHALON, J.P. 179
CHALOV, S.V. 213
CHAMBAT, F. 236
CHAMBRES, D.P. 128
CHAMILLET, J. 109
CHAMINE, H.I. 80
CHAMOT-ROOKE, N. 75
CHAMOV, N.P. 80
CHAMPALBERT, G. 166
CHAMPEAUX, S. 215
CHAN, C.C. 246
CHANCE, K.V. 225
CHANDLER, R.E. 268
CHANG, C.-P. 81
CHANIN, M.L. 193
CHANNELL, J.E.T. 63, 64, 98

CHANTEUR, G. 222
CHANTURIA, A. 264
CHANZY, A. 146, 148, 157
CHAO, B. 122
CHAO, B.F. 127, 133
CHAO, Y. 104, 125, 126, 132
CHAPMAN, C. 237
CHAPMAN, N.R. 118
CHAPMAN, R. 118
CHAPMAN, S.C. 222
CHAPRON, B. 182
CHARABBA, C. 93
CHARLET, L. 151
CHARNEY, J.J. 180
CHARONNAT, X. 80
CHARVATOVA, I. 225
CHARVIS, PH. 115
CHASSEFIERE, E. 248
CHATSKAYA, V.A. 216
CHAUKI, H. 146
CHAUMAT, L. 258
CHAUVIN, A. 82, 103, 104
CHAUVIN, F. 192
CHAVANIS, P.H. 248, 266
CHAVARRIA, L. 276
CHAZETTE, P. 184, 280
CHEILLETZ, A. 63
CHELIDZE, T. 257
CHEMENDA, A. 81, 82
CHEMINEE, J.L. 95, 278
CHEN, G. 264
CHEN, J.L. 128
CHEN, K.-J. 87, 88, 104
CHEN, S. 181
CHEN, Z. 124
CHENG, M.K. 104
CHEPFER, H. 184
CHERBLANC, F. 157
CHEREMSHYNSKY, M. 136
CHERKACHEV, G. 115, 117
CHERMANNE, B. 176
CHERMANNNE, B. 176
CHERNIAVSKI, V. 111
CHERNIKOV, G. 265
CHERNIKOV, G.P. 265
CHERNJAVSKI, A. 273
CHERNOCON, V. 136
CHERNOGOR 210
CHERNOGOR, L.F. 210
CHERNOOK, V.I. 155
CHERNOV, YU.K. 272, 274, 276
CHERNOVA, I.Y. 109, 110
CHERNY, A. 105
CHERNYAGA, P. 137, 138
CHERNYAKOV, S.M. 210, 211
CHERUBIN, L. 168
CHERY, J. 77, 78, 82, 134
CHESSA, P. 178
CHEVALIER, C. 120, 260
CHEVREL, S. 245
CHIAN, D. 116
CHIARABBA, C. 89, 93
CHIARALUCE, L. 89, 90
CHICARRO, A.F. 237
CHICHININA, T.I. 88
CHIERICI, M. 170
CHIGIRINSKAYA, Y. 215, 255
CHILDERS, V.A. 130
CHILLA, F. 253
CHILSON, P. 208, 231
CHINN, D.S. 124, 130
CHIOZZI, P. 68
CHIPPERFIELD, M. 209, 226, 227, 232, 262
CHIPPERFIELD, M.P. 209, 228
CHIRABBA, C. 70
CHIRINO, E. 142, 143
CHITALADZE, D. 269
CHKHETIANI, O.G. 179, 265
CHMARZYNSKI, P. 115
CHO, J.Y.-K. 260
CHOI, W. 208
CHOLLET, J.P. 261
CHOMETTE, O. 177
CHORNAY, D.J. 211
CHOTOO, K. 213, 245
CHOTOO, S. 214
CHOUET, B. 93
CHOUKROUNE, P. 102
CHOULIARAS, G. 272
CHOWDHURY, R.N. 270, 271, 276
CHRISTENSEN, C.S. 186
CHRISTENSEN, J.H. 169
CHRISTENSEN, S. 140
CHRISTENSEN, T.H. 149
CHRISTENSEN, T.R. 174
CHRISTENSEN, TH.H. 149
CHRISTENSEN-DALSGAARD, J. 214
CHRISTIANSEN BARLEBO, H. 141
CHRISTIANSEN, B. 230
CHRISTIDIS, N. 193
CHRISTIE, D.M. 116
CHRISTL, M. 163
CHRISTOPH, M. 165, 193
CHRISTOVA, C. 82, 272
CHRONOPOULOS, G. 229, 230, 280
CHU, H.-T. 274
CHUBARENKO, I.P. 152
CHUGUNIN, D. 220-222
CHUGUNIN, D.V. 221
CHUST, T. 223
CIACCIO, M.G. 93
CIANCA, A. 163
CIANETTI, S. 64
CIARALLO, A. 104
CIARAPICA, L. 152
CIARAVELLA, A. 213
CIATTI, E. 93
CIAVOLA, P. 279
CIBIN, U. 101
CICCIOLI, P. 186, 187
CICCIOLLI, P. 186
CICCOTTI, M. 94
CICUENDEZ, J.I. 77
CID, J. 276
CIERPKA, K. 213, 214, 245
CIESLIK, S. 186
CIFCI, G. 118, 119
CIFEI, G. 76
CIFELLI, F. 274
CIMINI, G.B. 89, 93
CIMINO, G. 242
CINAR, H. 70
CINI-CASTAGNOLI, G. 225, 245
CINTI, F. 90
CIONI, R. 95, 104, 278
CIPAKOVA, A. 148
CIPOLLA, F. 279
CIPOLLARI, P. 102
CIRAOLO, L. 219
CITTERIO, A. 156
CIUFFI, S. 117
CIVITARESE, G. 199
CIZKOVA, H. 68
CLAES, P. 247
CLAMOND, D. 264
CLAPES, J. 103, 276
CLAPS, P. 145
CLARK, D.A. 96, 97
CLARK, D.B. 155, 188
CLASSEAU, N. 123
CLASSEN, H.-T. 214, 223
CLAUD, C. 180
CLAUSER, C. 110
CLAUSTRE, H. 204, 205
CLAVAUD, J.-B. 110
CLEMENS, J.D. 76
CLEMENT, A.C. 183
CLEMENT, P. 143
CLEMENTE, S. 277
CLEMITSHAW, K.C. 196, 197
CLEMMONS, J.H. 67
CLENNELL, B. 113, 118
CLERBAUX, C. 225
CLERC, V. 243
CLIFFORD, M. 172, 173
CLINT, O.C. 112
CLOETINGH, S. 63, 64, 72-74, 77, 85
CLOETINGH, S.A.P.L. 73
CLOTHIER, A. 145
CLOUGH, S. 180
CLOUGH, S.A. 179
CLOUTIER, P. 236, 240
COBBOLD, P.R. 82
COCCO, M. 74, 75, 88-90, 275
COCHARD, A. 88
COCHONAT, P. 120
COCHRAN, J.R. 116
COCINA, O. 92
CODINA, R. 95
CODRESCU, M. 218
COE, H. 195-197
COE, J.A. 279
COELHO, D. 112
COEUR, C. 229
COGNARD-PLANCQ, A.L. 154
COHARD, J.-M. 185
COHEN, H. 143
COHEN, S.C. 81
COHEN, Y. 105
COHEN-SOLAL, E. 183
COLANGELI, L. 242, 244, 247
COLAS, E. 157
COLAS, F. 172, 239
COLBECK, I. 280
COLES, W.A. 213
COLIN DE VERDIERE, A. 161, 162
COLIN, C. 190
COLLERAN, J. 76
COLLIER, J. 68
COLLINS, G. 237
COLLINS, M. 193, 239
COLLINS, W.J. 197, 198, 225, 230, 233
COLLOT, J.-Y. 70, 117
COLOM, P. 243
COLOMBO, O.L. 130
COLOMBO, T. 179
COLOMINA, I. 123
COLONY, R. 169, 171
COLWELL, F.S. 118
COMAS, M.C. 63, 70, 120
COMBES, M. 239
COME, J.M. 158
COMES, F.J. 197
COMISO, J.C. 170
COMPAGNUCCI, R. 182
COMPERE, F. 158
CONAN, P. 199
CONANGLA, L. 173
CONDESSO MELO, M.T. 142
CONDOMINES, M. 95
CONNELLY, L.J. 143
CONNERNEY, J.E.P. 236, 240
CONNOLLEY, W.M. 170, 171
CONTADAKIS, M.E. 272, 273
CONTICELLI, S. 95
CONTRUCCI, I. 79, 86, 87, 115
CONVERSANO, R. 172, 173
CONWAY, P. 179
CONZELMANN, V. 236
COOK, A.C. 251
COOK, D. 250
COOK, G.T. 199
COOK, K.H. 188
COOLEY, R.L. 140
COOPER, S. 135
COORAY, V. 227
COPIN-MONTEGUT, G. 198
COPPA, U. 277, 278
CORAZZA, M. 110
CORBUS, C. 270
CORDOBA, D. 86, 115, 116
CORDOLA, M. 203
CORELA, C. 264, 265
CORJON, A. 233-235
CORMIER, V.F. 69
CORN, M. 260
CORNELIS, C. 146
CORNEN, G. 116
CORNET, F.H. 94
CORNOU, C. 89, 90
CORRADO, G. 277, 278
CORRAL ALEXANDRI, C. 270
CORREARD, S. 266
CORREDOR, R. 125, 126
CORREIA GUEDES, J.H. 277
CORREIA, A. 65, 66, 113
CORREIG, A.M. 92, 257

INDEX

CORSELLI, C. 65
CORSI, A. 86, 87
CORSINI, A. 279
CORTADA HINDERSIN, F. 146
CORTE-REAL, J. 107, 128, 144, 170, 190
CORTE-REAL, J.A.M. 164
CORTE-REAL, J.M. 145
CORTES, A. 77
CORTHETAS, J.M. 163, 167
CORTI, G. 277
CORTI, S. 193
COSCA, M. 63
COSENTINO, D. 102
COSIN, S. 187, 188
COSKUN, N. 103
COSOVANU, M. 145
COSOVIC, V. 64
COSTA, C.H. 279
COSTA, G. 89
COSTA, J. 213, 214, 242
COSTANZO, C. 184
COSTANZO-ALVAREZ, V. 99
COSTE, P. 244
COSTER, A.J. 129
COT, C. 226
COTON, F. 134
COTRIM, S. 142
COTTE, N. 80
COTTER, E. 194, 195
COTTIN, H. 244
COTTON, F. 74, 123
COUDRAIN-RIBSTEIN, A. 141, 146, 157, 158
COULLIETTE, C. 258, 259
COURBOULEX, F. 86, 88-90, 123
COUREN, M. 160
COURJAULT-RADE, P. 74
COURRIOUX, G. 79, 80
COURTIER, PH. 201
COURTIER, R. 202
COURTIN, R. 239, 247
COURTNEY, M. 186
COUSIN, I. 140
COUSTENIS, A. 239, 243, 247, 248
COUTAND, I. 82
COUTANT, O. 74, 91
COUTINHO, M. 280
COUVERT, P. 184, 192
COVEY, C. 183
COWARD, A. 168
COWARD, A.C. 163
COWARD, M.P. 85
COWLEY, S.W.H. 217
COX, C.M. 104, 124, 130
COX, R.A. 194-196
COX, R.M. 211
COY, L. 207
CRAIG, G.C. 178, 192, 204, 230, 231, 239
CRAMBES, C. 92
CRAMER, N.F. 216
CRANE, K. 117
CRANE, S.B. 144
CRASSIER, V. 178
CRAVEN, J.A. 92
CRAWFORD, W.C. 117
CREASEY, D.J. 196, 197
CREDNER, T. 242
CREER, K. 65
CREMERS, A.B. 66, 67
CREMONA, G. 122
CREPEL, O. 184
CREPON, M. 172, 173
CRESCIMANNO, G. 159
CRETAUX, J.F. 124, 128
CREUTIN, J.-D. 145, 157
CREUTIN, J.D. 153, 157
CREWELL, S. 184
CRIMINISI, A. 143
CRISCI, A. 144
CRISE, A. 172, 260
CRISP, D. 239, 249
CRISP, J. 249
CRISPI, G. 172, 260
CRISTEA, P. 106
CROKE, B. 239
CROSATO, A. 119
CROSSLEY, J.F. 193
CROVISIER, J. 243, 247, 248
CROWLEY, J.N. 193-195
CROZIER. M.J. 271
CROZIER, M. 271
CRUIKSHANK, D.P. 239, 247
CRUSEM, R. 66
CRUTZEN, P.J. 186, 195
CRUZ, A. 159
CRUZ-SANJULIAN, J.J. 142, 143
CSIKY, O. 187
CUBASCH, U. 183
CUCCI, L. 90
CUCURULL, L. 219
CUENA, J. 279
CULLEN, H. 164
CULTERA, G. 89
CULTRERA, G. 89, 90, 277
CUMMINS, P.R. 70
CUNEY, M. 79
CUNHA, S. 130, 200, 201
CUOMO, V. 252, 272
CURDT, W. 224
CURMI, P. 157
CURRY, A.G. 164, 165
CURRY, R. 164
CURTIS, D. 236
CURTIS, D.W. 240
CURTIS, P. 176
CURTIS, S.A. 67
CUSTODIO, E. 142
CUVELIER, C. 187
CUVIER, S. 139
CUYPERS, M. 140
CUZZOLA, V. 261
CZAJA, A. 164, 165
CZARNECKA, K. 137, 138
CZARNECKI, K. 136-138
CZARNECKI, L. 136
CZECHOWSKY, P. 231
CZEGKA, W. 112
CZUBA, W. 83, 84
D'AGOSTINO, N. 75
D'ALESSIO, G. 93
D'AMBROSIO, M. 166
D'AMICO, V. 274
D'ANDREA, F. 255
D'ODORICO, P. 252
D'ORTENZIO, F. 172
D'USTON, C. 236, 240
DA SILVA, A. 203
DA SILVA, A.M. 203
DACAMARA, C. 145
DACAMARA, C.C. 107, 189, 191
DACH, R. 126, 128
DACHEV, CHR. 119
DACHEV, TS.P. 211, 218
DADIC, V. 169
DADOU, I. 126
DAGESTAD, A. 151
DAGLEY, P. 103
DAHAN, O. 147
DAHL, O.C. 131
DAHL-JENSEN, T. 116
DAHLBACK, A. 228
DAHM, C.N. 148
DAHM, T. 91, 93
DAHMKE, A. 141, 150
DAI QI-CHAO 122
DAIGNIERES, M. 71
DALIBART, M. 244
DALL'AGATA, L. 154
DALLA FONTANA, G. 271
DALLEORE, C. 247
DALMAU, L. 148
DALPANE, E. 192
DALY, L. 104
DAMERIS, M. 207, 208, 226, 233
DAMHUIS, A.A. 130
DAMM, P.E. 164, 165
DAMM, V. 117
DAMMASCH, I. 225
DAMMASCH, I.E. 224
DANCKWARDT, E. 105
DANDO, P. 200
DANDONNEAU, Y. 166
DANELIA, R. 173
DANILOV, S. 265, 266
DANNE, O. 184
DANNOWSKI, R. 156
DANOBEITIA, J.J. 86, 115, 116
DANOVARO, R. 199
DANZER, J. 149
DARBOUX, F. 143, 158
DARBY, M.S. 169
DARIN, C.-F. 133
DARMAIS, S. 186
DAROT, M. 109
DARR, D. 125, 126
DARRACQ, D. 234, 235
DARROZES, J. 74, 111
DASSING, R. 135
DATIN, R. 157, 268
DATURI, C. 74
DAUBER, B.C. 231
DAUPLEY, X. 111
DAUTEUIL, O. 70, 75, 115
DAUTREBANDE, S. 270
DAUTRIA, J.M. 96, 97
DAVAILLE, A. 69
DAVENPORT, B. 163
DAVES, B. 174
DAVID, C. 103, 108, 109, 232, 262
DAVIDSON, G. 108
DAVIDSON, L.D. 150
DAVIES, A.M. 200
DAVIES, G.R. 95, 246, 248
DAVIES, H.C. 165, 179, 180
DAVIES, J. 200
DAVIES, J.A. 196, 209
DAVIES, J.K. 243
DAVIES, M.A. 122
DAVIES, P. 81
DAVIES, T.D. 179
DAVILA, J.M. 134
DAVIS, A. 184, 185, 254, 257
DAVIS, G.R. 246-248
DAVIS, J.L. 71, 133, 134
DAVIS, P.M. 87
DAVIS, R. 118
DAVISON, I. 76
DAVY, P. 74, 139, 143, 153, 157
DAWAI, T. 266
DAWSON, J.M. 223
DAWSON, P. 93
DAY, S.J. 278
DAYDOU, Y. 245
DAYU, G. 276
DCHANDOL, P. 91
DE ALTERIIS, G. 74
DE BACKER, L.W. 141
DE BEEK, R. 226, 227
DE BERGH, C. 239, 247
DE BOER, C. 99
DE BOVEE, F. 199
DE CAROLIS, G. 171
DE CHABALIER, J.-B. 81
DE CHABALIER, J.B. 123
DE CUEVAS, B.A. 124, 162
DE DREUZY, J.R. 139
DE F. FORSTER, P.M. 193
DE FELICE, P. 189
DE FERAUDY, H. 221
DE FOUQUET, C. 140
DE FRANCESCHI, G. 219
DE FRANCO, R. 86, 87
DE GORI, P. 93
DE GRAAUW, T. 246, 248
DE GRAAUW, TH. 247, 248
DE GROEN, M.M. 155
DE JONG, C.D. 134
DE JONGE, A. 209
DE KEYSER, J. 212, 213, 217
DE LA NOE, J. 209, 226, 227
DE LA TORRE, L. 189
DE LASSUS, H. 243
DE LAZZARI, A. 199
DE LEON, A. 163, 168
DE LUCA, G. 89, 93, 277
DE MARSILY, G. 139-141
DE MARTINI, P.M. 90, 274
DE MEY, P. 125, 172, 201

DE MICHELE, C. 255
DE MIRANDA, A.P. 162, 166
DE MONTETY, A. 181
DE MORAIS, A. 236
DE MUER, D. 230
DE NATALE, G. 92-94, 277
DE PERINI, V. 137, 138
DE RIDDER, K. 155, 178
DE ROSNAY, P. 144
DE RUBEIS, V. 274, 278
DE RUDDER, A. 226
DE RUIJTER, W.P.M. 162
DE SANTIS, A. 106, 114
DE SMET, J.H. 92
DE SWART, H.E. 263
DE VERNAL, A. 189
DE VICENTE, G. 64, 77
DE VIRON, O. 132
DE VRIES, J.J. 142, 146, 147
DEAN, S.M. 116, 149
DEBAYLE, E. 69, 87
DEBEGLIA, N. 79
DEBERNARD, J. 263
DEBREU, L. 201
DEBRUYN, W. 280
DEBSKI, W. 90
DEBUS, S. 228
DECKERS, J. 155
DECONINCK, J.-F. 100
DEDIEU, G. 107
DEDMAN, E.R. 241
DEE, D. 203
DEEBES, H. 106, 107
DEFER, E. 202, 234
DEFOREST, C. 213, 225
DEFRAIGNE, P. 133
DEGENHARDT, W. 209
DEGLORIA, S.D. 153
DEGNAN, J. 130, 135
DEGNAN, P.J. 139, 140
DEGORSKA, M. 228, 230
DEGRAZIA, G. 174
DEHANDSHUTTER, B. 78
DEHANN, D.O. 195
DEHANT, V. 132, 133
DEHGHANI, G.A. 115
DEICHMANN, N. 88
DEIDDA, R. 254, 255
DEKEYSER, I. 202, 267
DEKKER, S.C. 146
DEKKERS, M.J. 96, 97, 99, 101
DEKORP RESEARCH GROUP 80
DEKORP WORKING GROUP "NORTH GERMAN BASIN" 84
DEKORP/URSEIS RESEARCH GROUP 86, 87
DEL GAUDIO, C. 277, 278
DEL GAUDIO, V. 275, 276
DEL GUASTA, M. 228
DEL NEGRO, C. 278
DEL PEZZO, E. 88, 278
DEL PINO, J. 280
DEL POZO, C.F. 209, 218
DELABOUDINIERE, J.P. 225
DELACOURT, C. 123
DELANEY, P.T. 93
DELANGHE, D. 100
DELANNEE, C. 225
DELAY, F. 158
DELCLAUX, F. 188
DELCOURT, D. 220, 222, 223
DELCOURT, D.C. 221, 222
DELECLUSE, P. 182, 191
DELEERSNIJDER, E. 167
DELERUE, J.F. 109
DELEUIL, M. 249
DELEVILLE, S. 167
DELGADO, C. 178, 199
DELGADO-ARGOTE, L.A. 115
DELGADO-HUERTAS, A. 159
DELISI, D.P. 234, 266
DELLA CORTE, V. 137, 138
DELLA CROCE, N. 199
DELLA MONICA, P. 225, 245
DELLA VEDOVA, B. 65, 86
DELOBBE, L. 192
DELOR, C. 106
DELTEIL, J. 70, 115
DELVA, M. 240, 241
DELVAUX, D. 72, 74, 78
DELWICHE, M. 118
DEMEDYUK, M. 137, 138
DEMEKHOV, A.G. 216
DEMETRIADES-SHAH, T.H. 176
DEMETS, C. 81
DEMIANOV, G. 83, 84
DEMINA, M. 106
DEMIR, C. 81
DEMIROV, E. 259
DEMOND, A.H. 141
DEMOULIN, P. 225
DENGLER, M. 161
DENIS, C. 104, 120, 121
DENIS, M. 204, 205
DENK, T. 237
DENT, W.R.F. 243
DENTENER, F.J. 225, 233
DENYS, L. 122
DEPLUS, C. 70, 117, 278
DEQUE, M. 204
DERDER, M. 102
DERGACHEV, A.A. 271
DERGACHEV, V.A. 65, 189
DEROME, J. 203
DEROUAULT, J. 244
DERRICK, S. 96
DERVIN, P. 134
DERWENT, R.G. 197, 198, 230, 233
DESANTIS, L. 90
DESAULNIERS-SOUCY, N. 253
DESCAMPS, P. 247
DESCATOIRE, F. 234
DESCHAMPS, A. 80, 86, 88, 89, 93
DESCHAMPS, P.Y. 126
DESJARDINS, R.L. 175
DESPAN, D. 123
DESPIAU, S. 199
DESPOIS, D. 243
DESROZIERS, G. 180, 181
DESRUES, J. 109
DESSEN, J. 174
DESSENS, J. 173
DESSENS, O. 233
DESVOIVRES, E. 242
DETHLOFF, K. 256
DETHOF, A. 231
DETRICK, R. 116
DETRICK, R.S. 115, 117
DEURER, M. 148
DEUSS, A. 69
DEVAUX, J.P. 68
DEVEAUX, M. 169
DEVENEZIA, D. 71
DEVENON, J.L. 167, 202
DEVERCHERE, J. 77, 78, 86, 115
DEVEY, C.W. 115
DEVOOGHT, J. 141
DEVOTI, R. 72, 124
DEWAR, W.K. 166
DEWDNEY, P. 135
DEWHURST, D.N. 111
DEWITT, D.G. 183
DEZEEUW, D.L. 211, 213, 240
DI BELLA, L. 64
DI BELLO, G. 272
DI BONA, M. 89
DI CORI, M. 129
DI DONATO, G. 71
DI GIAMMARCO 153
DI GIOVAMBATTISTA, R. 273
DI GIUSEPPE, F. 185, 186
DI GREGORIO, S. 271
DI LIBERTO, V. 95
DI MAURO, D. 114
DI SABATINO, S. 175
DI VITO, M.A. 278
DIA, A. 151, 157
DIAGOURTAS, D. 277
DIAMENT, M. 70, 80, 117, 122, 278
DIANSKY, N.A. 228
DIAS, J.A. 267
DIAS, J.M. 267
DIAST, J. 161
DIAUR, N.I. 108
DIAZ DEL RIO, G. 161
DIAZ, E. 159
DIAZ, F. 172, 199
DIAZ, J. 86, 116
DIAZ-NAVEAS, J. 115
DICKEY, J. 132
DICKEY, J.O. 104, 127, 128
DICKSON, F.W. 94
DIDELLE, H. 166
DIDON-LESCOT, J.F. 154, 160
DIEDHIOU, A. 188, 189
DIEGUES, J.P. 164
DIEKKRÜGER, B. 146
DIELS, J. 147
DIELS, L. 246
DIERKES, F. 150
DIERMANSE, F. 146
DIETERICH, C. 162
DIETERICH, CH. 202
DIETERICH, J. 92
DIETRICH, M. 89, 90, 108, 112
DIETRICH, R. 77, 122, 126, 128
DIETRICH, S. 178, 179
DIJKSTRA, H.A. 162, 165, 191
DIKOV, YU.P. 243, 244
DILEEP KUMAR, M. 199
DILL, R. 133
DILLES, J.H. 95
DILLISSE, I. 69
DILLON, W. 118
DILLON, W.P. 118
DIMOU, G. 145
DINESEN, A.R. 250, 251
DING, X.L. 131
DINTRANS, B. 257
DIONGUE, A. 188
DIORDIEV, K.I. 170
DIRKZWAGER, J. 73
DIRKZWAGER, J.B. 73
DITTMER, J. 200, 201
DITTRICH, A. 143
DITTRICH, G. 103
DIXON, K.W. 183
DIXON, T. 81
DIXON, T.H. 95, 278
DJELLIT, H. 102
DJENIDI, S. 164, 165, 172, 173
DLC STUDY GROUP 116
DOAKE, CH. 128
DOBLAS-REYES, F.J. 204, 226, 227
DOBROLIUBOV, S. 182
DOBROLIUBOV, S.A. 161, 162, 181
DOBROWOLSKI, A. 136, 137
DOCAMPO, C. 267
DOCKRILL, S. 103
DODD, N. 263, 267
DODSON, A.H. 129, 134
DOIN, M.-P. 68
DOKE, T. 212, 217
DOKUCHAEV, V.P. 258
DOLECKI, L. 99
DOLEJS, D. 94
DOLGOPOLOW, A. 136, 137
DOLINA, I. 267
DOLNIKOV, G.G. 243, 244
DOLZHANSKII, F.V. 265, 266
DOMACK, E.W. 90
DOMASCHK, U. 87
DOMBROWSKY, E 124, 200
DOMBROWSKY, E. 124, 200
DOMENICHINI, L. 279
DOMINGUEZ, T. 91
DOMINH, K. 129
DOMMENGET, D. 190
DONAHUE, K.A. 164, 165
DONATI, S. 274, 277
DONATO, E. 187
DONG, D. 104, 128
DONNADILLE, J. 180
DONOHUE, K.A. 161
DÖÖS, K. 168
DORBATH, C. 82
DORBATH, L. 123
DORESSOUNDIRAM, A. 246, 248

INDEX

DORIGNY, A. 103
DÖRING, U. 141
DORN, H.-P. 196, 197, 204-206
DORN, H.P. 205, 206
DÖRNBRACK, A. 228
DOROFEEVA, V.A. 248
DOROFEYUK, N.I. 65, 66
DORONINA, T. 266
DORRER, E. 250, 251
DÖRRLER, S. 204, 205
DOS REIS, T. 86, 120
DÖSCHER, R. 162
DOSER, D. 275
DOST, B. 85, 86
DOTTO, E. 246, 248
DOUCELANCE, R. 115
DOUDKIN, F. 212, 273
DOUGHERTY, M. 213, 241
DOUGHERTY, M.K. 240, 241
DOUGLASS, A. 207
DOUGUEDROIT, A. 179
DOUSA, J. 137, 138
DOUTE, S. 243, 247
DOUTRIAUX-BOUCHER, M. 192
DOUVILLE, H. 193
DOVETON, J.H. 110
DOWDESWELL, J.A. 120
DOWELL III, C.A. 256
DOWNSON, M. 127
DRAGO, A. 219
DRAGONI, M. 74, 92, 93
DRAKATOS, G. 272
DRAKOPOULOS, P.G. 129, 173
DRAMIS, F. 275
DRANGE, H. 162, 170, 260
DREIBUS, G. 249, 251
DRENNOV, A.F. 88, 271
DRESEN, G. 108
DREWES, H. 82, 133
DREYER, M. 184
DRIDI-DHAOUADI, S. 149
DRIJFHOUT, S. 190
DRIJFHOUT, S.S. 190
DRITSCHEL, D.G. 168, 266
DROBINSKI, P. 174
DROBNE, K. 64
DROBZHEVA, YA. 264
DROEGEMEIER, K.K. 256
DRÖGE, W. 223
DROLSHAGEN, G. 244
DROSSART, P. 239, 247
DROSSINOS, Y. 252
DROZ, L. 120
DRÜEN, B. 179
DRUILHET, A. 176
DRUZHKOV, N. 169
DS-1 SCIENCE TEAM 246
DU PLESSIS, J.P. 109
DU, J. 203
DUARTE, A. 187
DUARTE, M. 115
DUBERTRET, G. 246
DUBININ, E. 213, 220, 222, 240, 241
DUBIS, L. 137, 138
DUBOIS, C. 109
DUBOIS, J. 253
DUBOIS, R. 196, 197
DUBOULOZ, N. 220-222
DUBROVSKY, M. 193, 228
DUBRULLE, B. 266
DUBUS, L. 166
DUBUY, F. 243
DUCET, N. 129
DUCHARNE, A. 144, 146
DUCK, T.J. 208
DUCREUX, J. 142
DUDAREV, O.V. 149
DUDENEY, J.R. 217
DUDOK DE WIT, T. 216, 257
DUDUKALOV, A.P. 147
DUERMEIJER, C.E. 101
DUERR, M. 187
DUFRESNE, J.-L. 183, 193
DUFUMIER, H. 91
DUGUY, B. 159
DUIJNISVELD, W.H.M. 148
DULAC, F. 280
DULK, G. 242
DULK, G.A. 241, 242
DULLO, W.-C. 236
DUMA, G. 68, 107
DÜMENIL, L. 146
DUMMEL, A. 249-251
DUMON, J.-C. 144
DUMOULIN, C. 68
DUNAEV, N. 170
DUNBAR, M. 160
DUNBAR, M.J. 156
DUNCOMBE RAE, C. 162
DUNKERTON, T.J. 257
DUNLOP, D.J. 96, 97
DUNN, P.J. 134
DUPEYRAT, L. 68, 238
DUPLESSY, J.-C. 188-190
DUPLESSY, J.C. 189
DUPONT, E. 173, 174, 177
DUPRE, B. 157
DUQUENNE, H. 131
DURAN, J.J. 139
DURAND, N. 167
DURAND, P. 151, 153, 157, 174, 186
DURMAN, C.F. 193
DURO, L. 141
DUROT, K. 158
DUROURE, C. 184
DURVILLE, J.-L. 270
DUTAUR, L. 186
DUVAL, A.-M. 277
DUVAL, P. 238
DUWE, K. 200
DUXBURY, T.C. 241, 249, 251
DUYSTER, J. 109, 110
DVORKIN, Y. 260
DWIPA, S. 114
DWIVEDI, B.N. 224
DWYER, I. 252, 253
DYER, D.J. 175
DYER, N. 95
DYKES, A.P. 143
DYMENT, J. 82, 119
DZIEWONSKI, A.M. 69, 89
EAMES, I. 258
EANES, R. 124
EANES, R.J. 123, 124
EBEL, A. 178, 231, 233
EBERHARDS, G. 144
EBERLE, M.A. 69
EBERLI, G.P. 108
EBERT, M. 151
EBINGER, C. 77, 78
EBINGER, C.J. 73, 74
ECHEVIN, V. 201
ECHTERNACHT, F. 114
ECHTLER, H.P. 81, 86
ECKART, P. 246
ECKERT, S. 177, 187, 188
ECKMAN, R.S. 233
ECONOMOU, T. 249
EDEL, J.B. 96, 97, 102
EDER-HINTERLEITNER, A. 102, 103
EDGINGTON, S. 248
EDMUNDS, W.M. 142, 147
EDOUARD, S. 232, 261
EDWARDS, E. 113
EDWARDS, J.M. 185, 230
EDWARDS, J.N. 139
EDWARDS, N.R. 165
EDWARDS, R.A. 117
EERENS, H. 154
EFFERSO, F. 66
EFIMOVA, G.A. 108
EFSTATHIOU, M. 229
EGAL, E. 79
EGANOVA, I.A. 121
EGBERS, C. 256
EGEBERG, P. 118
EGGER, J. 231
EGORKIN, A. 92
EGORKIN, A.V. 88
EGOROVA, T. 226, 227
EGOZCUE, J.J. 277
EHHALT, D.H. 197, 198
EHRENFREUND, P. 243, 244
EHRHARDT, J.-J. 151
EHRHARDT, J.J. 151
EHRLICH, R. 108
EICHMANN, K.-U. 226, 227
EICKE, N. 230
EIDELMAN, A. 178, 179, 265
EIDMANN, G. 208
EIDSVIK, K.J. 169, 234, 235
EIFF, O. 258
EIFF, O.S. 258
EIFLER, W. 259, 263
EIGENHEER, A. 200
EIGES, P. 220
EIGHMY,J. 104
EINAUDI, F. 117
EINSTEIN, H. 140
EISELE, F.L. 196, 197
EISENBLÄTTER, J. 91
EISENREICH, M. 103
EISWIRTH, M. 149
EK, N. 232, 261
EKLUND, U. 220, 221
EKMAN, M. 71
EKNES, M. 202
EKSTROM, G. 64, 65, 69, 89, 90
EL AMRANI-PAAZA, N. 142, 143
EL BOUDALI, A. 196, 197
EL ERAKI, M. 103, 106
EL-SHEMI, A.M. 106
ELANSKY, N.F. 197, 198, 226, 227
ELBERN, H. 178
ELBERSKIRCH, J. 132
ELEND, M. 196
ELFOUHAILY, T. 182
ELGERED, G. 129, 133
ELIASON, E. 250
ELIASSON, L. 217
ELIET, V. 147
ELLERMANN, T. 177
ELLIOT, M. 98, 189
ELLIOTT, C. 156
ELLIS, S. 80, 81
ELLISON, R.A. 123
ELMING, S.-A. 68, 83, 96, 97
ELMOUSSAOUI, A. 172
ELPHIC, R.C. 246
ELPHICK, S.C. 113
ELSTE, T. 196, 197
ELTAHIR, E.A.B. 155
ELUSTONDO, F. 244
ELVINI, E. 201
EMANUEL, K. 181
EMANUEL, K.A. 179
EMARDSON, T.R. 133
EMELIANOV, M. 167
EMERY, B.A. 211
EMLOUSSAOUI, A. 164, 165
EMS WORKING GROUP 274
ENCRENAZ, T. 243, 246-248
ENCRENAZ, TH. 239, 247, 248
ENDERLE, U. 80
ENDO, M. 209, 210
ENEL ACCELEROMETRIC NETWORK WORKING GROUP 89
ENELL, C.F. 227
ENGARDT, M. 203
ENGDAHL, E.R. 69
ENGEL, A. 230
ENGELAND, K. 146
ENGELL-SOERENSEN, L. 91
ENGESGAARD, P. 142, 151
ENGFER, D. 234, 235
ENGLE, I.M. 240
ENGRAND, C. 243
ENNINGHORST, K. 124
ENOMOTO, T. 277
ENTEKHABI, D. 155
ENTZIAN, G. 226
EPARVIER, F. 224
EPELBAUM, M.B. 95
EPHISHOV, I.I. 130
EPIFANI, E. 247
ERARD, S. 237
ERBACHER, J. 65
ERDIK, M. 64, 65, 275

ERDÖS, G. 215
ERDURAN, M. 70
ERGENZINGER, P. 143, 156
ERGUN, M. 76, 119
ERGUN, R. 217
ERICKSON, G.M. 222
ERIKSEN, T. 209
ERKER, E. 136
ERLANDSON, R.E. 217
ERLEBACH, P. 208
ERLENDSSON, P. 78
ERMAKOVA, E.N. 216
ERNI, D. 148
ERNSHAW, J. 113
ERNST, G. 185
EROKHIN, E. 216
EROKHIN, N.S. 212, 253, 264, 265
ERREA, M.P. 154
ERSHKOVICH, A.I. 217
ERSHOV, A.V. 73
ERVENS, B. 186, 196
ERZINGER, J. 277
ESCANEZ, J. 163
ESCARTIN, J. 115-117
ESCUDER-VIRUETE, J. 94
ESCUDIER, P. 200
ESKES, H.J. 226
ESMAEELI FARD, S. 68
ESOP2 SCIENTIFIC TEAM 161
ESPINOZA, F. 276
ESPOSITO, E. 275
ESPOSITO, F. 244
ESPOSITO, T. 277
ESSELBORN, S. 162
ESTABROOK, CH. 69
ESTALRICH, J. 142
ESTARELLAS, C. 179
ESTEBAN, M. 167
ESTEVE, V. 178, 199
ESTEVES, M. 158
ESTEVEZ, C. 238
ESTOURNEL, C. 172
ESTRELA, T. 154, 155, 160
ETCHEBER, H. 199
ETCHEVERS, P. 157
ETIOPE, G. 199
ETLING, D. 208, 258
EUGENIO-GONZALEZ, F. 167
EUGSTER, S. 272
EULENSTEIN, F. 141, 156
EUROBRIDGE SEISMIC WORKING GROUP 83
EUROMOON TEAM 246
EUROPROBE TESZ PROJECT PARTICIPANTS 84
EUROSEISMOD GROUP 277
EVA, C. 64, 82, 267
EVA, E. 64
EVA, H. 107
EVANGELISTI, F. 179, 226, 227, 261
EVANS, A.D.L. 188
EVANS, D.A. 72
EVANS, J. 234, 235
EVANS, M. 104, 197, 232, 262
EVANS, M.J. 195
EVANS, N. 76
EVANS, S.G. 270, 271
EVENSEN, G. 201, 202
EVERS, L. 86
EVISON, F.F. 272
EVLOGIEV, J. 99
EVSTAFJEV, O.V. 210
EWALD, S. 182
EWEN, J. 144
EXETIER, P. 134
EYMARD, L. 181, 184
EYRING, V. 209
EZAT, U. 280
FABIAN, P. 197, 198, 207, 228, 230
FABIAN,P. 187, 188
FABIANO, M. 199
FABRETTI, P. 117
FABRIOL, H. 126
FACCENNA, C. 63, 76
FAGENTS, S. 237
FAGGIOLI, D. 172, 173
FÄH, D. 277
FAHR, H.-J. 213, 214
FAHR, J.H. 214
FAHRBACH, E. 170, 171
FAHRUTDINOVA, A.N. 210
FAILLAT, J.P. 158
FAINBERG, J. 213
FAIRHEAD, J.D. 73, 74
FAIRHEAD, L. 183, 193
FALALAKIS, G. 81
FALCK, E. 161
FALEIRO, E. 254
FALKO, O.G. 212
FALLER, J.E. 278
FALLOWS, R. 213
FALQUES, A. 263
FALZONE, G. 278
FANALE, F.P. 237
FANG, P. 129
FANJUL, E.A. 200
FANTINI, M. 178, 179
FARAT, R. 186
FARGES, T. 209
FARIA JR. 223
FARINA, F. 95, 278
FARISSIER, P. 269
FARMER, A.B. 113
FARRUGIA, C.J. 217
FASS, S. 150
FASSBINDER, J. 102, 103
FASTOOK, J.L. 71
FAUQUE, L.E. 279
FAUQUETTE, S. 189
FAURE, M. 79, 80
FAURE, T. 184
FAUVE, S. 254
FAVALI, P. 199
FAYNOT, L. 97
FEATHERSTONE, W.E. 127, 131
FEBRER, J. 86
FECHANT, C. 103
FECHNER, N. 117
FEDDER, A. 220
FEDDER, J.A. 221
FEDDERS, B. 168
FEDERICI, G. 279
FEDERICO, A.D. 68
FEDEROV, A. 217
FEDI, M. 105
FEDORENKO, V.N. 219
FEDORENKO, YU.P. 219
FEDOROFF, N. 102
FEDOROV, A. 217, 220, 221
FEDOROV, A.N. 86, 210
FEDOROV, A.O. 221
FEDOTOV, N.G. 196
FEDULINA, I. 218
FEDUN, V.N. 212
FEHLMANN, R. 165, 179, 180
FEICHTER, J. 183, 192, 208, 231
FEIGL, K. 123
FEIGL, K.L. 123
FEIJT, A. 184
FEIL, G. 135
FEIR, B. 135
FEJER, B.G. 209, 210
FEJES, I. 136
FELDMAN, W.C. 246
FELDMANN, H. 226, 227, 231
FELLNER, A. 136, 137
FELLNER, W. 235
FELSKI, A. 136, 137
FENEBERG, B. 230
FENG, M. 181
FENNELL, J.F. 216, 217
FENOGLIO-MARC, L. 129
FENTER, F.F. 195
FENWICK, D. 140
FERAUD, G. 63, 68
FERETIS, E. 229
FERGUS, T. 156
FERGUSON, I.J. 92
FERGUSON, R. 155
FERMI, M. 72, 134, 136
FERNANDES, R. 81
FERNANDEZ, D. 234, 235
FERNANDEZ, F. 159
FERNANDEZ, F.J. 80
FERNANDEZ, J. 70, 94
FERNANDEZ, J.M. 94
FERNANDEZ, M. 63-65, 70, 71, 73, 120
FERNANDEZ-CIRELLI, A. 156
FERNANDEZ-TURIEL, J.L. 156, 157
FERRACCIOLI, F. 77, 278
FERRACHAT, S. 263
FERRAN,A. 159
FERRAND, J. 199
FERRANDINI, J. 86
FERRANDIZ, J.M. 133
FERRANTI, L. 191
FERRARA, A. 159
FERRARA, V. 279
FERRARESE, S. 193
FERRARI, A. 174
FERRARI, D. 147
FERRARI, E. 269
FERRARI, F. 86
FERRARI, L. 278
FERRARIS, L. 268, 270
FERRARO, C. 134, 136
FERRARO, L. 137
FERREIRA, E. 267
FERREIRA, S.B. 149
FERRELI, L. 89, 274
FERRER, S. 124
FERRERO, E. 174
FERRIERE, K. 240
FERRUCCI, F. 278
FERRY, N. 181
FESCH, C. 141
FESER, F. 165
FESHCHENKO, E.YU. 212
FEUCHTGRUBER, H. 246-248
FEUERBACHER, B. 241
FEUILLEBOIS, F. 234
FEYBESSE, J.L. 80
FEYEN, H. 147, 148
FEYEN, J. 139, 147, 154, 155
FIALA, M. 163
FIANI, M. 131
FICHEFET, H. 170
FICHEFET, T. 169, 189
FICHEFET, TH. 181, 183
FICHTNER, H. 213, 214
FICKERT, J. 129
FICKERT, S. 194, 195
FIDALGO, L. 116
FIDELIBUS, M.D. 142
FIEDLER, F. 177, 178
FIEG, K. 162
FIEKAS, H.-V. 167, 168
FIERLI, F. 227
FIGUERAS, S. 276
FIGURSKI, M. 136-138
FILIBERTI, M.-A. 183
FILINA, A.G. 271
FILIPPI, D. 68, 280
FILIPPI, L. 93
FINCHAM, A. 166
FINCHAM, A.M. 258, 259
FINE, N. 235
FINESCHI, S. 213, 225
FINETTE, S.I. 263
FINIZOLA, A. 277
FINK, A.H. 188, 191
FINKELE, K. 176
FINLAYSON-PITTS, B.J. 195
FINNE, K. 257
FINZI-CONTINI, G. 86, 275
FIOCCO, G. 174, 261
FIORDELISI, A. 114
FIORENTINO, M. 145
FIORUCCI, P. 154
FISCHER, G. 163
FISCHER, H. 227, 230
FISCHER, J. 142
FISCHER, K.D. 73
FISCHER, M. 183
FISCHER, R. 91
FISCHER, R.G. 204, 205
FISHER, Q.J. 113
FITAS, A. 88

INDEX

FITZJOHN, C. 160
FITZSIMMONS, A. 247
FIUZA, A.F.G. 167
FJELDSKAAR, W. 71
FLAMANT, P.H. 174, 184
FLAMENT, P. 166
FLASAR, F.M. 240
FLATHER, R.A. 200, 201
FLECHSIG, C. 108
FLECHSIG, CH. 108
FLECHTNER, F. 124, 135, 219
FLEISCHMANN, O.C. 194, 195
FLEISCHMANN, U. 162
FLEITOUT, L. 68, 69
FLENTJE, H. 228
FLENTJE, P. 270, 271, 276
FLETA, J. 276
FLEURISSON, J.A. 276
FLEURY, R. 219
FLINT, H. 184
FLLENTJE, H. 196, 197
FLOOD, R.D. 120
FLOR, J.-B. 258
FLORES, A. 219
FLORINDO, F. 64, 99, 100, 102
FLORIO, G. 105
FLOSSMANN, A.I. 177, 186
FLUDRA, A. 213
FLUEH, E. 115-117
FLUEH, E.R. 74, 115, 117
FLUGGE, M. 194, 195
FLÜH, E.R. 87, 115
FLÜHLER, H. 147, 148
FLURY, M. 147
FOCARDI, A. 271
FOCARDI, P. 271
FODOR, L. 74
FOELSCHE, U. 129
FOHRMANN, H. 167
FOING, B.H. 245, 246
FOKEN, TH. 174, 175
FOLCH, A. 94, 95
FOLDVIK, A. 171
FOLKNER, W.M. 236, 249
FOLLAND, C.K. 165, 193
FOLTON, N. 160
FONSCCA, P. 80
FONT, J. 150, 166, 167, 259
FONT, Y. 82
FONTAINE, B. 188
FONTAINE, D. 209-211, 215, 216
FONTAN, J. 186
FONTI, S. 237
FOOT, J.S. 192, 280
FORBERICH, O. 197
FORBES, J.M. 211
FORGET, F. 238, 239
FORGET, P. 167
FORICHON, M. 183
FORME, F. 211
FORNI, O. 236
FORRER, J. 174
FORSBERG, C.-F. 120
FORSBERG, R. 83, 84, 127, 130, 131, 200, 201
FÖRSTE, CH. 129
FÖRSTER, A. 73, 110
FORSTER, C. 231
FÖRSTER, M. 218
FORSTER, P.M. DE F. 230
FORSTER, S. 200
FORSYTH, R.J. 213, 214
FORTE, A.M. 71, 127
FORTEA, J. 280
FORTUIN, P. 230
FOSSEN, H. 74
FOSTER, J.C. 218
FOSTER, P. 229
FOTIADIS, D.N. 219
FOUCHE-ROGUIEZ, S. 158
FOUCHET, T. 241, 247
FOULGER, G.R. 78
FOUQUET, Y. 115
FOURNIER, A. 253, 256, 259, 264, 266
FOURNIER, J.-D. 215
FOURNIER, R. 239
FOURRIE, N. 180
FOX, A.D. 124
FOX, D.N. 202
FOX-RABINOVITZ, M. 202, 203
FRAEDRICH, K. 232, 257, 258, 261
FRAGALE, F. 255
FRAILE, R. 234
FRANCALANCI, L. 95
FRANCALANI, L. 95
FRANCESCHETTI, G. 89
FRANCHETEAU, J. 117
FRANCIS, O. 71, 122
FRANCK, S. 237
FRANCOIS, C. 157
FRANCOIS, L. 176
FRANCOIS, L.M. 176
FRANGOV, G. 279
FRANK, E. 271
FRANKE, B. 227
FRANKE, D. 81
FRANKE, P. 129, 134, 136
FRANKE, W. 83
FRANKENBERGER, J.A. 153
FRANKIGNOUL, C. 164, 165
FRANKS, S. 146
FRANSSON, A. 170
FRANTZIS, X. 82, 134, 272
FRANZEN, A. 184, 208
FRAPE, S.K. 118
FRAPPORTI, G. 149
FRASCARI, F. 260
FRASER, B.J. 217
FRATANTONI, D. 162
FRATTONI, M. 186
FRAUNIE, P. 167, 259
FRECHET, J. 79
FREDERIKSEN, S. 70
FREDOW, M. 107
FREDRICH, J.T. 108, 109
FREDVIK, T. 213
FREEMAN, K.S. 218
FREEMAN, M.P. 217
FREHERS, S. 84
FREI, C. 179
FREITAS, M.C. 267
FRENCH-NEPALESE IDYLHIM TEAM 81
FRENJE, L. 88
FRENZEL, B. 187
FREPOLI, A. 64
FRERICK, J. 225
FREY, H.V. 249
FREY, M. 81, 84
FREY, S. 204, 205
FREYMUELLER, J.T. 81
FRIBORG, T. 174, 176, 177
FRICH, P. 165
FRICKE, K.H. 207, 227
FRIEDEL, R. 212
FRIEDEL, S. 93
FRIEDERICHS, P. 164
FRIEDL-VALLON, F. 227
FRIEDRICH, K. 175, 185
FRIEDRICH, R. 178
FRIGESSI, A. 268
FRIND, E.O. 149
FRISCH, U. 264
FRISON, T.W. 255, 256, 263
FRITSCH, J.M. 180
FRITZ, B. 108
FRITZ, T. 216
FRITZ, T.A. 217
FROEHLICH, C. 176
FROHLICH, C. 177, 228
FROIDEVAUX, C. 63
FROIDEVAUX, L. 209, 226, 227
FROLOVA, N.S. 68
FRUEHAUF, C. 146
FRUGONI, F. 199
FRÜH, W.-G. 256
FRÜHAUF, C. 146, 176
FRUNEAU, B. 123
FU, S.Y. 217
FUCHS, J. 129
FUCHS, K. 76, 79, 80, 87
FUCHS, T. 139
FUDA, J.L. 167, 199
FUHRER, K. 100
FUJI SCIENTIFIC PARTY 117
FUJII, R. 209, 210
FUJII, T. 118
FUJIMORI, K. 272, 273
FUJIMOTO, K. 108, 113
FUJIMURA, A. 245
FULCHIGNONI, M. 246, 248
FULIGNATI, P. 94, 95
FULLE, M. 247
FÜLLEKRUG, M. 218
FULLER-ROWELL, T.J. 218
FUNICIELLO, F. 274
FUNICIELLO, R. 63, 75, 93
FUNK, O. 184, 185, 230
FUNKQUIST, L. 200, 201
FUNNICIELLO, R. 76
FUNVISIS TECHNICAL MEMBERS 277
FURCOLO, P. 268, 269
FURGER, M. 175
FURLONG, K.P. 70, 71, 87
FUSELIER, S. 220
GÄB, S. 205, 206
GABALDA, G. 122, 278
GABELLINI, E. 91
GABLE, C.W. 263
GABRIEL, A. 224, 233
GABRIEL, G. 68, 106
GABRIELSEN, R. 74
GACZYNSKI, E. 83, 84
GADDIS, L. 249, 250
GAEGGELER, H. 231
GAETA, F.S. 93, 94
GAFFET, S. 67, 86, 89, 90
GÄGGELER, H.W. 194
GAGNI, S. 150
GAGNON, N. 203
GAGO, J.L. 99
GAILLARD, F. 200
GAILLOT, P. 74, 111
GAILLOT, S. 160
GAK, E.Z. 66, 207
GALADINI, F. 90
GALAND, M. 217, 240
GALANI, E. 226, 227, 261, 280
GALAPEAU, P. 243
GALBIATI, G.L. 147
GALDEANO, A. 79, 80, 106
GALDIN, N. 78, 79
GALDINI, F. 89
GALILEO AND ULYSSES DUST TEAMS 240
GALILEO IMAGING SCIENCE TEAM 237
GALILEO IMAGING TEAM 237
GALILEO NIMS AND SSI INSTRUMENT TEAMS 237
GALILEO SSI TEAM 237, 238
GALIMOV, E.M. 237
GALINDO, G. 156
GALL, R. 179
GALLANI, M. 208
GALLART, F. 148, 152, 153
GALLART, J. 86, 87
GALLART,F. 152
GALLAT, J. 86
GALLE, C. 111
GALLEE, H. 192
GALLET, Y. 97
GALLI, M. 225
GALLI, P. 89, 90
GALLO, J. 111
GALOPEAU, P.H.M. 243
GALPERIN, Y. 220, 222
GALPERIN, YU. 221
GALPERIN, YU.I. 221, 222
GALPERIN, YU.L. 222
GALSGAARD, K. 223
GALTEZKA, J. 134
GALTIER, S. 215
GALVANI, A. 90
GALVIN, A. 214, 245
GALVIN, A.B. 213, 214, 224
GAMBINO, P. 276
GAMBIS, D. 132

GAMMELSROD, T. 171
GAMOND, J.F. 81
GANACHAUD, A. 172
GANAYE, V. 150
GANDOLA, F. 147
GANDOLFI, M. 279
GANDOLFI, S. 123, 277, 278
GANG, W. 123
GANGULY, N. 118
GAO, S. 87
GARAM, E. 176
GARAMBOIS, S. 108, 112
GARATE, J. 123, 134
GARCIA, A. 224
GARCIA, C. 143
GARCIA, J. 104
GARCIA, M.A. 167, 168, 171
GARCIA, P. 250
GARCIA, R. 139, 229
GARCIA, R.L. 176
GARCIA, R.R. 208
GARCIA, S. 187, 188
GARCIA-ARSTEGUI, J.L. 142, 143
GARCIA-CASTELLANOS, D. 73
GARCIA-HARO, F.J. 159
GARCIA-LADONA, E. 259
GARCIA-LOPEZ, S. 142, 143
GARCIA-RUIZ, J.M. 153, 154, 160, 269, 279
GARCOA-WEIL, L. 163, 167
GARCON, V. 126, 260
GARCZYNSKA, I.N. 243
GARDA, P. 66
GARDI, A. 75
GARDINER, B.A. 174
GARDNER, J.E. 95
GARDNER, M. 243
GARDU, G. 71
GARDUNO, R. 203
GARIEL, J.C. 88
GARMASH, K.P. 210
GARNIER, A. 207
GARNIER, J.-M. 199
GARRIC, G. 169
GARROTE, L. 268
GARROTTE, L. 279
GARVIN, J.B. 249
GARZOLI, S.L. 162
GASCARD, J.C. 166
GASCUEL-ODOUX, C. 143, 157, 158
GASPAR, P. 125
GASPARINI, C. 274
GASPARINI, G.P. 164
GASPERI, J. 123
GASPERINI, L. 117
GASPERINI, P. 64, 274
GASQUET, D. 63
GASSE, V. 219
GASSMANN, A. 171
GASSNER, M. 175
GATZEMEIER, A. 114
GAUDEMER, Y. 75
GAUDET, J.P. 158
GAUDIA, F. 246
GAUDICHET, A. 118, 280
GAUDIN, J.C. 123
GAUDU, J.C. 148
GAULLIER, V. 120
GAUS, I. 140
GAUTAM, P. 96, 97
GAUTHIER, P. 95, 232, 261
GAUTHIER, P.-J. 95
GAUTIER, D. 236, 239, 246, 247
GAUTIER, P. 82
GAUTIER, Y. 140
GAUTIER,D. 243
GAUTROIS, M. 204, 205
GAUTSCHI, A. 111
GAVART, M. 125
GAVIGLIO, P. 109
GAVINELLI, M. 149
GAVRILOV, A.G. 152
GAYANOV, V.G. 118
GAYET, J.F. 184
GAZEAU, M.C. 244
GEBALLE, T. 243, 247
GEDALIN, M. 215
GEDNEY, N. 193
GEE, G.W. 147
GEE, J.S. 65
GEERAERTS, R. 99
GEGOUT, P. 128, 131, 132
GEHRELS, J.C. 147
GEISEN, S. 149
GEISS, CH.E. 99
GEISS, J. 214, 224, 242
GEISSLER, P. 237
GELENNE, P. 192
GELHARDT, F. 208
GELINO, C. 249
GELINO, C.R. 249
GEMMER, L. 68
GENDREAU, N. 269
GENDRON, E. 239
GENDT, G. 124, 134
GENEREUX, D. 140
GENEYS, C. 199
GENIN, J.-M.R. 151
GENIN, J.M. 151
GENNERO, M.C. 128, 129
GENOT, V. 223
GENOVES, A. 179
GENS, A. 111
GENSER, J. 85
GENT, P.R. 183
GENTE, P. 119
GENTHON, C. 198, 262
GENTILHOMME, V. 253
GENTILI, B. 193, 275
GEOF TEAM 79
GEOFRANCE 3D CARTOGRAPHY AND METALLOGENY TEAM 79
GEOFRANCE 3D TEAM 79, 80
GEOHRING, L.D. 147
GEORGE, CH. 195
GEORGE, S.E. 193
GEORGEAUD, V. 96, 97
GEORGEAUD, V.M. 101
GEORGIEV, I. 81
GEORGOPOULOS, D. 166
GEPTNER, T.M. 68
GERARD, E. 243
GERARD-MARCHANT, P. 147
GERAUD, Y. 110
GERBAULT, M. 71
GERBIG, C. 232, 262
GERDES, R. 162, 169, 171
GERGOVA, D. 104
GERHARD, M. 196, 197
GERMA, P.-H. 90
GERMAIN, B. 243
GERMANN, P. 157
GERNANDT, H. 228
GERRITSEN, H. 200-202
GERSHENZON, M.YU. 196
GERSHENZON, YU.M. 196
GERSTENECKER, C. 122
GERSTL, M. 127
GERSTL, S. 184
GERVASIO, L. 167, 172
GERZ, T. 173, 174, 234
GESSNER, K. 80
GETINO, J. 133
GEUZENS, P. 146
GEYER, A. 197, 198
GGGELER, H.W. 231
GHEBREAB, W. 77
GHEM, V.E. 220
GHEUSI, F. 258
GHIL, M. 132, 202, 256
GHITAU, D. 136
GIADA TEAM 241
GIALANELLA, C. 122
GIAMPANI, C. 270
GIAMPICCOLO, E. 82, 89
GIANNOPOULOS, P. 176
GIARDINI, D. 64
GIARDINO, C. 279
GIARRUSSO, C.C. 267
GIBBS, M. 161
GIBERGANS BAGUENA, J. 269
GIBERT, D. 90, 106, 133
GICCARDI, A.D. 279
GIDASPOW, D. 93
GIDSKEHAUG, A. 130, 200, 201
GIEHL, H. 233
GIERENS, K. 233
GIESE, B. 245, 246, 251
GIESE, P. 82
GIESE, U. 83
GIEZ, A. 280
GIGGENBACH, W.F. 118
GIJSBERS, P.J.A. 155
GIL, A. 91
GILABERT, M.A. 159
GILLE, J.C. 225
GILLE, S.T. 125, 126
GILLOT, B. 235
GILMOUR, I. 204
GILOD, D. 117
GIMENEZ, E. 142
GIMENO, L. 164, 165, 178, 179, 189, 229, 234, 235, 267, 269
GINCI, J. 77
GINSBURG, G. 118
GINZBURG, A. 74
GINZBURG, A.I. 167
GIONCADA, A. 95
GIORDANI, H. 177, 181, 201
GIORDANI, P. 199
GIORGETTA, M.A. 192
GIORGETTI, A. 172
GIOSTRA, U. 175
GIOVANARDI, F. 159
GIOVANELLI, G. 261
GIPSON, J. 133
GIRARD, M. 101
GIRARDEAU, J. 116
GIRAUD, S. 124, 200
GIRBACEA, R. 63
GIRSHGORN, L. 88
GIRZ, C.M.I.R. 234
GISH, T. 147
GISKEHAUG, A. 130
GISKEHAUS, A. 130
GIUDICI, M. 140, 141
GIUNCHI, C. 64, 71, 72, 80
GIUNTINI, R. 86
GLADE, T. 271
GLADMAN, B. 246
GLADSTONE, G.R. 238
GLANGEAUD, F. 86, 115
GLASSMEIER, K.-H. 223
GLAUER, J. 205, 206
GLAVAS, S. 280
GLAZMAN, R.E. 125, 257
GLENNIE, C.L. 130
GLIEM, F. 214, 224
GLIKO, A.O. 108
GLINSKY, B.M. 87, 272, 273
GLOBUS, A.M. 253
GLOECKLER, G. 213, 214, 224, 245
GLOERSEN, P. 170
GLOT, J.-P. 89, 90
GLOVER, P. 110
GLOVER, P.W.J. 109, 110, 112
GLOWACKA, E. 126
GOBIN, A. 154, 155
GODA, M.P. 268
GODANO, C. 93
GODIN, S. 226, 227, 232, 262
GODOY, J. 163
GODT, J.W. 279
GOEBBELS, J. 108
GOEDE, A. 209, 228
GOEDE, A.H.P. 225
GOES, S. 69, 71
GOETZ, W. 250, 251
GOETZE, H.J. 66
GOGOU, A. 199, 204, 205
GOGUITCHAICHVILI, A. 96-98
GOGUTCHAICHVILI, A. 97
GOHL, K. 115
GOIRAN, J.P. 122
GÖKALP, H. 70
GOKOV, A.M. 209, 210
GÖKTAP 74

INDEX

GOLAZ, C. 157
GOLBRAIKH, E. 178, 179, 265
GOLDBAUM, B. 178
GOLDBERG, V. 144, 173
GOLDENFUM, J.A. 139, 142
GOLDIN, S. 86
GÖLDNER, R. 177
GOLDSTEIN, S.L. 198
GOLENKO, N.N. 168
GOLIN'KO, V. 268
GOLITSYN, G.S. 68, 252
GÖLKE, M. 73, 74
GOLLO, P. 145, 270
GOLOMBEK, M.P. 249-251
GOLOUB, P. 184
GOLTZ, C. 252
GOLUBEV, V.A. 118
GOMBOSI, T.I. 211, 213, 240
GOMES, M.A.F. 252
GOMES, P. 187
GOMEZ LAHOZ, M. 200
GOMEZ, J.B. 252
GOMEZ, J.M.G. 254
GOMEZ, M. 179
GOMEZ-ARTOLA, C. 157
GOMEZ-ENRI, J. 125, 130
GOMEZ-HERNANDEZ, J.J. 140
GOMEZ-PLAZA, A. 152, 159
GOMIS, D. 166, 171
GONCALVES HENRIQUES, A. 144
GONCHAROV, A.V. 147
GONCHAROV, M.A. 68
GONCHAROV, V.P. 266
GONI, G. 162
GONZALEZ CASADO, J.M. 77
GONZALEZ DIAZ, E.F. 279
GONZALEZ, C. 147, 154, 189
GONZALEZ, E. 157
GONZALEZ, I. 108
GONZALEZ, J. 159
GONZALEZ, M.I. 173
GONZALEZ, S.A. 211
GONZALEZ-GARCIA, R. 139
GONZALEZ-SOSA, E. 158
GONZALEZ-SOUSA, E. 158
GONZATO, G. 94
GOODEN, J.H.M. 234
GOODRICK, S.L. 182
GOOSSE, H. 169, 170, 183
GORBUNOV, L. 216
GORBUNOV, M. 129
GORDEEV, V.YU. 261
GORDO, C. 163
GORDON, A. 171
GORDON, M. 250
GORDON, R.G. 72
GORINI, A. 89
GORINI, C. 120
GOROZHANINA, Y. 83
GORSKY, G. 167
GORYACHKIN, YU.N. 169
GORYL, P. 125, 126
GOSLIN, J. 115, 117
GOSSLER, J. 84
GOTTIKH, R.P. 176
GOTTSCHALK, L. 140, 144, 146, 154, 269
GÖTZE, H.-J. 66, 67, 83
GOUGET, H. 231, 261
GOUGH, M.P. 212, 222
GOULA, X. 276
GOULDEN, M. 177
GOUNELLE, M. 243
GOURDEAU, J. 199
GOURDEAU, L. 201
GOURIOU, Y. 161
GOURRION, J. 182
GOUT, C. 76
GOUZE, P. 139, 141, 142
GOUZE, PH. 141
GOUZELIN, P. 129
GOVERS, R. 64, 69-71
GOVINDARAJU, R. 202
GOVINDARAJU, R.S. 150, 152
GOZZINI, B. 144, 145
GPS-TFZ TEAM 81
GRABER, W. 231
GRABER, W.K. 175
GRABOWSKI, J. 83, 85
GRAD, M. 83, 84
GRAF, H.-F. 164, 165, 183, 208
GRAFE, A. 211
GRAFF, A. 178
GRAFODATSKY, O. 244
GRANAHAN, J.C. 237
GRANBERG, I.G. 179
GRANDE, M. 216, 217
GRANDJEAN, G. 79
GRANET, M. 79, 80, 87, 88
GRANIER, C. 225, 261
GRANJA, H. 122
GRANLUND, K. 141
GRANT, J. 235
GRANT, W.B. 208
GRAPPIN, R. 215
GRARD, R. 221, 239, 240
GRASSET, O. 69
GRATCHEV, V.G. 135
GRATHWOHL, P. 139, 149, 150
GRATIER, J.-P. 141
GRATTONI, P. 279
GRAVEL, S. 232, 261
GRAVENHORST, G. 146, 176
GRAY, L.J. 232, 261
GRAZZINI, F. 268
GRBEC, B. 169
GREBOWSKY, J.M. 67, 217
GRECKSCH, G. 110
GRECO, F. 278
GREELEY, R. 237, 238, 251
GREEN, A. 103
GREEN, A.W. 107, 215
GREEN, S. 234
GREENAWAY, R.G. 123, 134
GREENBERG, J. 186
GREENE, G.C. 234
GREENSLADE, M.D. 258, 263
GREENWALD, R.A. 217
GREFF-LEFFTZ, M. 133
GREGERSEN, S. 76, 77, 84
GREGOIRE, M. 260
GREGOIRE, V. 111
GREGORIS, Y. 146
GREGORY, J.M 193
GREGORY, J.M. 193
GREINER ,E. 125
GREINER-MAI, H. 104, 105, 133
GREKHOV, O.E. 86, 210
GRELLE, A. 176
GRENERCZY, GY. 137, 138
GRESILLON, D. 174, 217
GRESILLON, J.-M. 159
GRESTA, S. 82, 278
GRESWELL, R. 141
GREVEMEYER, I. 118
GREWE, V. 226, 233
GREY, S. 165
GRIBI, P. 111
GRIBIN, S. 154
GRICHUK, L.V. 66
GRIDIN, V.I. 66
GRIEGER, B. 189, 190
GRIEGER, N. 208
GRIEVE, R.A.F. 246
GRIFFAULT, L. 111, 112
GRIFFIN, M. 248
GRIFFIN, M.J. 246-248
GRIFFIOEN, J. 150
GRIFFITH, C. 243
GRIFFITHS, M. 180
GRIFFITHS, P.A. 113
GRIGO, D. 74
GRIGORIEV, V.N. 80
GRIMA, N. 182, 260
GRIMACO, L. 122
GRIMALDI, C. 157
GRIMMOND, S. 176
GRIMSHAW, R. 263
GRIMSHAW, R.H.J. 264
GRISOLOA,D. 167
GRITCHIN, A.I. 210
GROEBNER, N. 111
GROEN, J. 142
GROMOV, V.V. 244
GRÖNLUND, L. 169
GROPIUS, M. 115
GROS, J.B. 246
GROS, V. 187, 205, 206
GROSE, W.L. 233
GROSFELD, K. 171
GROSS, CHR. 205, 206
GROSS, R.S. 128
GROSS, U. 194, 195
GROSSI, G. 144
GROSSKLAUS, M. 181
GROSSMAN, R.L. 174, 175
GROSSMANN, K.U. 184, 208
GROTEFENDT, K. 169
GROTEN, E. 129
GROTH, C.P.T. 211, 213, 240
GROTHUES, H.-G. 246
GROUSSET, F. 198
GROUSSET, F.E. 198
GRÖVALL, H. 170
GRUAU, G. 151, 157
GRUBER, TH. 130
GRUEN, E. 244, 247
GRUENTHAL, G. 64
GRUENWALDT, H. 214
GRÜN, E. 240, 242, 244, 246, 247
GRÜNWALDT, H. 213, 224
GRUSHINSKY, A.N. 70, 72
GRYANIK, V. 266
GRYANIK, V.M. 174
GRYDELAND, T. 211
GRYGORIAN, O. 273
GRYNING, S.-E. 173
GRYNING, S.E. 174
GRZHIBOVSKIS, R. 144
GUALDI, S. 191
GUASCH, A. 125, 126
GUDKOVA, T.V. 236, 251
GUDMUNDSSON, A. 91, 92, 94, 95, 139
GUDMUNDSSON, M.T. 106
GÜENDEL, F. 82
GUENNI, L. 145
GUENNOC, P. 79
GUENTHER, A. 186
GUERIN, C. 192
GUERIN, G. 76
GUERIN, V.A.E. 142
GUERINOT, G. 186
GUERRICCHIO, A. 270, 271, 276
GUERZONI, S. 173
GUESSEN, A.V. 202
GUFFOND, D. 234
GUIBOURG, S. 268, 278
GUIDOBONI, E. 274
GUIEU, C. 199, 260
GUIGUET, R. 79, 89, 90, 108
GUIJARRO, A. 179
GUILBAUD, S. 268
GUILBERT, J. 88
GUILLEMET, B. 184, 254
GUILLEN, A. 79
GUILLEN, J. 167, 168
GUILLOCHEAU, F. 79
GUILLOT, G. 157
GUILLOT, S. 80
GUILLOT, T. 236, 239, 248
GUILLOU, C. 107
GUILLOU, H. 98
GUIMERA, J. 141, 142, 150
GUIO, P. 209, 211
GUIOMAR, M. 120
GUIOT, J. 189, 190
GUIRLET, M. 226
GUIZIEN, K. 168
GULAKYAN, S.Z. 273
GULDBERG, A. 181, 183
GULEV, S. 164, 165, 181, 182
GULKIS, S. 247
GULLA, G. 270, 271
GULYAEVA, T.L. 220
GUMIEL, P. 139
GUNN, C. 76
GUNN, J. 170
GUNN, J.T. 170
GUNNARSSON, M. 236

GUNNLAUGSSON, H.P. 250, 251
GUNSON, J. 260
GÜNTHER, G. 207, 208, 227
GUO, B. 99, 100
GUO, J. 203
GUO-YUE, N. 269
GUPTA, H.K. 110
GURAUD, Y. 109
GURGEL, K.-W. 200, 201
GURGENIDZE, M. 173
GURIOLI, L. 104, 278
GURMAN, J.B. 213
GURNETT, D. 241, 242
GUSCHIN, G. 229
GUSCHIN, G.P. 229
GUSEV, A. 77, 78, 245
GUSTAFSSON, G. 216
GUSTAFSSON, N. 202, 203
GUSTARD, A. 160
GUTDEUTSCH, R. 274
GUTERCH, A. 83, 84
GUTIERREZ, C. 255
GUTIERREZ-OJEDA, C. 147
GUTIERREZCEBALLOS, C. 255
GUTSCHER, M.-A. 117
GUYOT, F. 69, 245
GUZZETTI, F. 278, 279
GVELESIANI, A. 264
GVELESIANI, T. 264
GWGOU, A. 204, 205
HAACK, S.K. 150
HAAK, H. 85
HAAK, V. 77, 78, 107, 113, 114
HAARSMA, R.J. 165, 190
HAAS, R. 128, 132
HAASE, G. 185
HAASE, O. 92
HAATAJA, J. 192
HABERLAND, CH. 82
HABERLE, R. 249
HABERLE, R.M. 249
HABERSACK, H. 143, 156
HABETS, F. 157
HACKENBERG, P. 215
HACKER, P. 181
HACUHECORNE, A. 227
HADAMCIK, E. 241, 243, 244
HADERLEIN, S. 141
HADERLEIN, S.B. 149
HADERLIEN, S.B. 151
HAEGEL, F.-H. 150
HAFNER, T. 233, 235
HAGEMANN, S. 146
HAGERMANN, A. 241
HAGFORS, T. 210, 211, 216, 242
HAHN, G. 246, 247
HAHN, K.U. 234
HÄHNER, P. 252
HAIDEN, T. 145
HAINEES, K. 124
HAINES, B. 124
HAINES, K. 165, 172, 198
HAINZL, S. 273
HAIRSTON, M.R. 217
HAJI ABU, S. 123
HAJNAL, Z. 87
HAKKINEN, S. 165
HAKOLA, H. 187
HALBACH, P. 117, 200
HALDEMANN, A.F.C. 251
HALENKA, T. 208, 261
HALFORD-MAW, P.A. 196, 197
HALL, J. 119
HALLDIN, S. 152
HALLENBECK, S. 243
HALLOCK, J. 234
HALSEY, N. 234
HAMAL, K. 135
HAMBACH, U. 100
HAMEL, M. 131
HAMELIN, B. 198, 199
HAMILTON, D. 240
HAMILTON, D.C. 214
HAMILTON, D.P. 240
HAMONOU, E. 280
HAMRE, T. 202
HAN, B. 243
HAN, G. 125
HANAK, J. 109
HANAOKA, Y. 225
HANASZ, J. 221
HANBABA, R. 219, 220
HANDLER, R. 74
HANKE, M. 196, 197
HANNA, E. 170
HANNACHI, A. 265
HANNAY, D. 118
HANNAY, D.E. 118
HANNER, M. 249
HANNER, M.S. 247
HANNULA, H. 150
HANSEN, B. 165
HANSEN, B.U. 174, 176, 177
HANSEN, C. 165
HANSEN, D. 70, 129
HANSEN, G.B. 237
HANSEN, J. 204
HANSEN, K.C. 240
HANSEN, L.K. 151
HANSEN, M. 161
HANSEN, U. 77, 78, 186, 263
HANSTEEN, V.H. 224
HANUISE, C. 174, 217
HANYK, L. 72
HAPGOOD, M. 211
HAPGOOD, M.A. 207
HARANGOZO, S.A. 171
HARDER, M. 169, 170
HARDER, S. 83
HARDING, A.J. 117
HARDING, J. 201
HARDING, R.J. 155, 188
HARE, T. 250
HARGRAVES, R.B. 250, 251
HARGREAVES, J.C. 200, 201
HARI, P. 176, 192
HARISSON, D. 187
HARLANDER, U. 171, 258
HARLAUT, D. 139
HARLEY, P. 186
HARLEY, S.L. 94
HARLOFF, J. 238
HARMAND, B. 111, 149
HARMS, I.H. 170
HARNISCH, G. 122
HARNISCH, M. 122
HAROGH, P. 209
HARRI, A.-M. 238, 239
HARRIES. J.E. 192
HARRINGTON, J.F. 111
HARRIS, A. 246
HARRIS, G.W. 194
HARRIS, S.D. 113
HARRISON, A. 96, 97
HARRISON, C.G.A. 98, 128
HARRISON, M.S.J. 188
HARRISON, R. 225
HARRISON, R.A. 207, 224, 225
HARROP, N.D. 122
HART, J. 132
HART, P.E. 117, 118
HARTMANN, A. 178
HARTMANN, G.K. 209
HARTMANN, R. 126
HARTNADYB, C.J.H. 118
HARUYAMA, J.-I. 246
HARWART, S. 99
HARWELL, J. 150
HASAGER, C.B. 174
HASCHBERGER, P. 233
HASE, H. 135
HASELTON, K. 257, 275, 276
HASHIMOTO, M. 272
HASINGER, G. 256
HASKIC, A. 107, 114
HASSAN, G.S. 103
HASSAN, H. 105, 106
HASSANI, R. 77, 78, 82, 139
HASSANZADEH, J. 68
HASSE, L. 181
HASSLER, D.M. 224, 225
HASSOUP, A. 272
HASTIE, D.R. 194, 196, 197
HASZPRA, L. 197, 198
HATA, M. 273
HATUKAI, P. 153, 154
HATZFELD, D. 277
HATZIANASTASSIOU, N. 186
HATZIDIMITRIOU, P. 277
HAUBER, E. 249, 251
HAUBOLD, H. 85, 102
HAUCHECORNE, A. 193, 207, 226, 232, 258, 262
HAUDEBOURG, V. 244
HAUF, T. 233-235
HAUFF, K. 187
HAUGAN, P. 163
HAUGAN, S.V.H. 224, 225
HAUGLUSTAINE, D. 225, 261
HAUGLUSTAINE, D.A. 225, 230
HAUS, R. 244
HAUSCHILD, A. 174
HAUSER, F. 87
HAUSER, J. 166
HAUSLEITNER, W. 135
HAUSMANN, M. 197, 198, 205, 206
HAUTOT, S. 112
HAVERDINGS, H. 234
HAVERKAMP, R. 147, 157, 158
HAWAT, T. 227
HAWKESWORTH, C.J. 95
HAYASHI, K. 110
HAYES, K.F. 141, 151
HAYES, M. 144
HAYNES, P.H. 230-232, 258, 260-262
HBENER, S. 231
HE, J. 71, 264
HE, J.-M. 264
HEAD III, J. 237, 245
HEAD III, J.W. 117, 237, 238, 245
HEAD, J. 237
HEAD, J.W. 237, 249
HEAPS, A. 228
HEARD, D.E. 196, 197
HEBERT, H. 70, 117
HEBESTREIT, K. 195
HECHT, J.H. 210
HECK, A. 240
HECK, P. 155
HEDLIN, M.A.H. 130
HEFI, S. 224
HEFLIN, M.B. 71, 134
HEFTI, S. 224
HEFTY, J. 136, 137
HEGAI, V.V. 209, 210, 273
HEGYMEGI, L. 107, 215
HEHL, K. 130, 200, 201
HEIDBACH, O. 82
HEIDEN, A.C. 187
HEIDENREICH, W. 177
HEIKINHEIMO, M. 280
HEIKKINEN, P.J. 73, 87
HEIMANN, A. 102
HEIMO, A. 228
HEIN, G. 81, 127
HEIN, R. 226
HEINBOCKEL, R. 115
HEINEMANN, M. 222
HEINRICH, P. 267, 278
HEINRICH, PH. 267, 268
HEINRICH, R. 77
HEINZ, S. 260
HEIRTZLER, D. 214, 223
HEISE, E. 190
HEJDA, P. 97, 107, 218
HEJKRLMK, L. 189
HEKANSSON, B. 168
HELFFRICH, G. 68
HELLER, D.-A. 238
HELLER, F. 97, 99
HELLING, C.F. 147
HELLMER, H. 171
HELLMER, H.H. 171
HELLMUTH, K.-H. 108
HELLWEG, M. 93
HELM, C.M. 99
HELMING, K. 143
HELMS, M. 156

HEMBISE, O. 226
HEMMANN, R. 77
HENDEL, R. 68
HENDERSON, J. 234
HENDRICKS, J. 233
HENDRIKS, B. 78
HENDRY, R. 202
HENNESSY, K.J. 193
HENNI, P.H.O. 274
HENOCQUE, O. 96, 97
HENRIOT, O. 109, 123
HENRY, B. 97, 102
HENRYS, S.A. 118
HENSE, A. 132, 164, 165
HENSON, D. 113
HENZE, M. 142
HERAK, D. 86
HERAK, M. 86, 88
HERAS, A.M. 248
HERBERT, H.-J. 111
HERBERT, T.D. 65, 66
HERBERT, V. 259
HERBIG, K. 168
HEREIL, P. 231, 268
HERETER, A. 148
HERFORT, M. 149
HERKENHOFF, K. 251
HERLIN, I. 123
HERMAN, J.R. 228
HERMAN, R.L. 231
HERMAND, J.-P. 172, 173
HERMANN, S. 275
HERMANNS, R. 275
HERMANNS, R.M. 275
HERMMANN, H. 196
HERNANDEZ, B. 74, 123
HERNANDEZ, E. 178, 229
HERNANDEZ, F. 124, 125, 130
HERNANDEZ, N. 142, 143
HERNANDEZ-GARCIA, E. 259
HERNANDEZ-GUERRA, A. 163, 167
HERNANDEZ-PAJARES, M. 218, 219
HERRAIZ, M. 77
HERRERA, M.D. 167, 168
HERRERA, R.G. 240
HERRERO, A. 89, 156
HERRERO, F.A. 67, 211
HERRING, T.A. 133
HERRMANN, H. 186, 193
HERRMANN, P. 162
HERSBACH, H. 203
HERTOGEN, J. 117
HERTZOG, A. 207, 258
HERVAS, J. 278
HERWANGER, J. 103
HESLOP, D. 99
HESS, P. 231
HESSE, R. 118
HESSLING, M. 154
HESSNER, K. 168, 200, 201
HETTEL, S. 85
HETZEL, R. 81
HETZHEIM, H. 209
HEUSSNER, S. 199
HEWSON, T. 180
HEYWOOD, D.I. 135
HIBBERT, A. 224
HIBBITTS, C.A. 237
HICKS, E.C. 77
HIDALGO, M.C. 142, 143
HIDAYAT, T. 239
HIDE, R. 252
HIEKE, W. 115
HIESINGER, H. 245
HIETALA, R. 170
HIGUCHI, T. 108, 113
HIGY, C. 152
HIKIMA, R. 110
HILCHENBACH, M. 213, 214, 223, 224, 242
HILDE, T.W.C. 115
HILDEBRAND, P.H. 179, 180
HILDEBRANDT, H. 163
HILDEBRANDT, J.A. 117
HILL, M.C. 141
HILL, M.J. 96, 97
HILLS, J.G. 268
HILMER, M. 169, 170
HILTON, M. 95
HIMMELMANN, S. 194, 195
HINDERER, J. 127
HINSON, D.P. 240
HINTSA, E.J. 231
HINZ, K. 81, 115
HIRANO, S. 70
HIRATA, Y. 272, 273
HIRN, A. 63
HIROKI, Y. 118
HIRSCH, H. 241
HIRSCHI, J. 162
HIRSEKORN, V. 103
HIRT, A.M. 101
HIRT, U. 159
HIRTH, G. 117
HISCOTT, R. 119
HISDAL, H. 268
HISMATULIN, T. 78, 79
HJORTH, J. 187, 196, 197
HO, C.-R. 126
HOAN, S. 242
HOANG, S. 213, 222, 242
HOBBS, S.E. 175
HOBRO, J.W.D. 117
HOCHEGGER, G. 219
HOCHSTEIN, M.P. 70
HOCK, L. 168
HOCK, S. 84
HOCKE, K. 129
HOEG, P. 129
HOEHENER, P. 150
HOEING, K. 83
HOETZL, H. 149
HOFER, P. 197, 198
HOFFMAN, K.A. 98
HOFFMANN, H. 245, 246, 251
HOFFMANN, M. 246
HOFFMANN, P. 207, 210, 231
HOFFMANN, V. 96, 98, 99, 101
HOFFMANN-ROTHE, A. 114
HOFMANN, A. 100
HOFMANN, D.J. 233
HOFSTETTER, R. 65
HOFSTETTER, TH.B. 149, 151
HOFTON, M.A. 130
HOFZUMAHAUS, A. 196-198, 204-206
HOGG, N.G. 162
HOJKA, A.M. 74
HOJSTRUP, J. 280
HOLBACK, B. 217
HOLBROOK, W.S. 116
HOLDSWORTH, R.E. 108
HOLFELDER, T. 148, 156
HOLLAND, F. 196-198, 205, 206
HOLLER, G. 129
HOLLER, K. 129
HOLLIGER, K. 88
HOLLINGER, D. 176
HOLLINGWORTH, J. 249
HOLLMANN, R. 185
HOLLOWAY, P. 263
HOLLOWAY, P.E. 167
HOLM, D.D. 266
HOLM, J. 142
HOLOTA, P. 105, 131
HOLSCHNEIDER, M. 90, 133
HOLT, M.W. 200
HOLT, W. 71
HOLVOET, F.-X. 112
HOLZÄPFEL, F. 234
HOMAR, V. 268
HONARY, F. 211, 218
HONNOREZ, J. 96, 97
HONORE, C. 261
HOOD, A.W. 213
HOOD, M. 170
HOOGEN, R. 226, 227
HOOGENDOORN, J.H. 149
HOOKER, P.J. 111
HOOPER, R.J. 76
HOPEWELL, H. 122
HÖPFNER, J. 131, 132
HOPPE, U.-P. 209
HOPPER, J.F. 194
HOPPER, J.R. 116
HORACEK, J. 107
HORANYI, M. 240
HÖRDT, A. 92
HOREN, H. 119
HORIE, O. 187
HORRITT, M.S. 270
HORSEMAN, S.T. 111, 112
HORST, T.W. 174, 175
HORVATH, F. 63, 72-74, 90
HOSKINS, B. 192, 232, 261
HOSKINS, B.J. 179
HOST, G. 268
HOU, D. 256
HOUGHTON, J. 113
HOURDIN, C. 238, 239
HOURDIN, F. 238, 239, 261
HOURDIN, F.;J LUZ, D. 239
HOUSA, V. 102
HOUWELING, S. 225
HOVENSTADT, D. 224
HOVESTADT, D. 214, 223, 224
HOVORKA, D. 85
HOWARD, R. 225
HOWARD, R.A. 223, 225
HOWELL, E.S. 95, 278
HOWELLS, V.ST.C. 207
HOWINGTON-KRAUS, A. 250
HOYNG, P. 130
HRABAK, P. 101
HROUDA, F. 96, 97, 109
HRUSECKY, I. 67
HSU, C.J. 266
HSU, K.J. 94
HU, J.-C. 82, 274
HU, S. 99, 100
HUANG, C. 81, 143
HUANG, C.-Y. 81
HUANG, C.M. 209
HUANG, X. 202, 203, 219
HUANG, X.-Y. 202, 203
HUAR, A. 220
HUBATKA, F. 85
HUBBARD, W.B. 236, 248
HUBER, M.C.E. 224
HUBERT, A. 275
HUBERT, D. 213
HUBRECHTS, L. 147
HÜBSCHER, C. 65, 120
HUCHON, P. 115, 117
HUCK, T. 161
HUDNUT, K. 134
HUDSON, J.A. 117, 144
HUDSON, M. 223
HUENGES, E. 107, 109, 110
HUESO, R. 239
HUESS, V. 125
HUGGENBERGER, P. 139, 140
HUGHES, T.J. 71
HUGUENIN, D. 227
HUISMANS, R. 77, 85
HULIN, J.P. 158, 252
HUMBERT, C. 96, 97
HUMLER, E. 115
HUMMELSHOEJ, P. 176, 186
HUNGR, O. 271, 279
HUNKELER, D. 150
HUNSTAD, I. 90
HUNT, D.L. 262
HUNT, H.D. 161
HUNTINGFORD, C. 176
HUON, S. 158, 198
HUOT, E. 123
HUOT, J.-P. 239, 260
HUPPERT, A. 256
HURAI, V. 94
HURLBURT, H.E. 202
HURST, K. 134
HURTALOVA, T. 175
HUS, J. 99
HUSTI, G.J. 130
HUTCHINSON, D. 152
HUTH, R. 193
HUTTON, D. 76
HUUSE, M. 91

HUWE, B. 148
HUYBRECHTS, P. 72
HUYNH, H.T. 234
HVIID, S.F. 250, 251
HYNDMAN, R. 118
HYNDMAN, R.D. 118
HYVONEN, P. 246
HYVÖNEN, T. 87
IACCARINO, G. 275
IACOBELLIS, V. 145
IACONDINI, A. 150
IACONO, R. 265
IATROU, T. 229
IBADINOV, KH.I. 243, 244
IBANEZ, J. 88, 92, 278
IBANEZ, M.A. 159
IBRAGIMOV, S.Z. 96, 97
IBROM, A. 146
IDA, S. 248
IDE, K. 256, 258, 259
IGEL, H. 88, 91
IGLER, B. 140
IGOUMNOV, V. 273
IHDE, J. 136
IHLME, P. 268
IHMLE, P.F. 88, 89
IKEDA, M. 169
ILAEIN, S.D. 196
ILDEFONSE, B. 117
ILLES-ALMAR, E. 67, 218
ILLINGWORTH, A.J. 184
ILVESNIEMI, H. 176
ILYUSHIN, Y.A. 226, 227
IMAE, M. 135, 136
IMBER, J. 108
IMBERGER, J. 148
IMPERATO, I. 233, 235
IMPEY, G. 194
INALL, M. 168
INBAR, M. 160
INCLAN, G. 233
INFANTE, C. 173, 175
ING RESEARCH GROUP 89
INGEROV, A.I. 83, 108, 112-114
INGERSOLL, A.P. 260
INGHAM, T. 194, 195, 226
INHESTER, B. 225
INNES, D. 223
INNES, D.E. 225
INSERGUEIX, D. 238
INSERGUEIX-FILIPPI, D. 68
IOGANSON, L.I. 73, 77
IORGULESCU, I. 152
IP, W.-H. 222, 224, 240, 241, 245, 247
IPATOV, A.V. 135
IPAVICH, F.M. 214, 224
IRITANO, G. 271
IRITZ, Z. 175
IRIVING, D. 271
IRMLER, S. 141
IRWIN, P.G.J. 239, 246-248
ISAEV, S.V. 216
ISAEVA, A.B. 261
ISAKA, H. 184, 185, 254
ISAKSEN, I. 225, 233
ISAKSEN, L. 203
ISBELL, C. 250
ISEMER, H.-J. 181
ISENBECK-SCHRÖTER, M. 151
ISHIDA, T. 257
ISHIHARA, Y. 245
ISHII, H. 272, 273
ISHII, M. 69
ISIKARA, A.M. 64
ISNARD, O. 262
ISOPHOT COMET TEAM 247
ISRAELEVICH, P.L. 217
ISSAUTIER, K. 213
ISSAWY, E.A.M. 103
ISSLER, S.A. 175
ISTEKOV, K. 272
ISTERHUS, S. 171
ITALIANO, F. 199
ITO, H. 108, 113
ITO, K. 245
ITZIN, M. 86
IUDICONE, D. 172, 173
IUTSENKO, V.N. 220
IVAKHNENKO, A.P. 96, 97
IVANOV, A.B. 238
IVANOV, B.A. 236
IVANOV, K.G. 213
IVANOV, L.M. 255, 257
IVANOV, M.K. 119
IVANOV, S.S. 257
IVANOV, V. 170
IVANOV, V.A. 169
IVANOV, V.V. 89, 189
IVANOV, YU.A. 162
IVANOVA, E.V. 189
IVANOVA, K. 254
IVANOVA, T.P. 274
IVARSSON, K.-I. 202
IVCHENKO, N.V. 212
IVCHENKO, V. 221
IVCHENKO, V.O. 166
IVERSEN, T. 203
IVEY, G.N. 167, 257
IVINS, E.R. 71, 74, 128
IWATA, T. 245
IYENGAR, G 203
IZMODENOV, V. 214
IZMODENOV, V.V. 214
IZQUIERDO, A. 168
JAANI, A. 218
JABOCS, F. 93
JACKSON, C.P. 139, 140
JACKSON, D.R. 232
JACOB, A. 202
JACOB, A.W.B. 69, 83, 87, 115
JACOB, B. 77, 78
JACOB, D. 181, 262
JACOB, V. 229
JACOBEIT, J. 190
JACOBI, CH. 207, 209, 210
JACOBS, C. 267
JACOBS, F. 105, 108
JACOBS, G.A. 202
JACOBS, P. 167
JACOBS, P.J. 196, 197
JACOBSDOTTIR, S. 78
JACOBSEN, B. 217
JACOBSEN, B.H. 66, 103, 214
JACOBSEN, B.J. 66
JACOBSEN, I. 178
JACOBSEN, J.B. 169
JACOBY, S. 173, 174
JACOBY, W.R. 63, 64, 104, 105
JACOBY-KOALY, S. 231
JACQUES, D. 147
JACQUEY, C. 220
JACQUIN, C.G. 108
JACZEWSKI, A. 256
JADIN, E.A. 228
JAEDICKE, C. 146
JAEKEL, U. 141, 253
JAESCHKE, W. 204, 205
JAFERNIK, H. 136, 137
JAFFRI, F. 113
JAGOUTZ, E. 198, 245
JAGUSCH, F. 185
JAHR, T. 68
JAHR, TH. 94, 106, 122
JAHRE, H. 76
JAKOBS, H.J. 178
JAKOBSEN, M. 117
JAKOBSEN, R. 151
JAKOWSKI, N. 129, 218
JAKUBIAK, B. 203
JAMES, I.D. 200
JAMES, I.N. 169, 208
JAMES, P.M. 226
JAMES, T.S. 71, 128
JAMET, D. 199
JAMET, J.L. 199
JAMIESON, D. 160
JANAK, J. 136
JANAK, M. 84, 85, 94
JANICOT, S. 188, 189
JANIK, T. 83, 84
JANLE, P. 115, 236-238
JANOD, F. 91
JANSA, A. 179
JANSEN, E. 161
JANSEN, W. 256
JANSKY, J. 86
JANSMA. P. 95
JANSMA, P. 81, 278
JANSSEN, F. 168, 200, 201
JANTSCHIK, R. 198
JARCHOW, C. 209
JARDIN, M. 234
JAROSLAWSKI, J. 229
JAROSZ, E. 167
JARVIS, M.J. 207
JARVIS, P.G. 176
JAUBERT, G. 180
JAULT, D. 133
JAUMANN, R. 135, 136, 241, 245, 249, 251
JAUPART, C. 82
JAVAKHISHVILI, Z. 257
JAYNES, D. 147
JEANDEL, C. 163, 198, 202
JEANDEL, C.C. 163
JECHUMTALOVA, Z. 91
JEDICKE, R. 246
JEFFERSON, D.C. 124
JEGEDE, O.O. 175
JEKABSONS, N. 139
JELENSKA, M. 99, 101, 102
JELINOWSKA, A. 100, 107
JELLALI, S. 158
JELMERT, T.A. 108
JENATTON, L. 79
JENG, Y. 87, 88, 104
JENKIN, M.E. 196, 197
JENNISKENS, P. 244
JENSEN, H.R. 201
JENSEN, J.M. 66, 214
JENSEN, K.H. 142
JENSEN, N.O. 174, 176, 186
JENSEN, N.R. 187
JENSEN, S.L. 84
JENTINK, H.W. 233
JENTZSCH, G. 73, 77, 92, 94, 106, 122
JERRETT, D. 134
JESECK, P. 227
JEWSON, S.P. 190
JEZEK, J. 96, 97
JI, Z.Z. 263
JIA, Y. 162
JIANG, J. 77
JIBSON, R.W. 275, 276
JIMENEZ, B. 167
JIMENEZ, J.J. 162, 166, 191
JIMENEZ, J.R. 142
JIMENEZ, O. 110
JIN YI-SHENG 122
JIN, F.F. 191
JINJIKHASHVILY, G. 264
JIRICEK, F. 218, 221
JOCHMANN, H. 127, 133
JOCHNIEWICZ, J. 220
JOCHUM, A. 280
JOCKERS, K. 241, 242
JOHANNESSEN, B.O. 167
JOHANNESSEN, T. 161, 170
JOHANSSON, B. 155
JOHANSSON, J.M. 71, 133, 134
JOHANSSON, P.-E. 174
JOHN, B. 117
JOHNS, T.C. 188, 193
JOHNS, W. 161
JOHNSON, B. 72
JOHNSON, C. 81
JOHNSON, C.E. 197, 198, 230, 233
JOHNSON, E. 170
JOHNSON, E.R. 266
JOHNSON, J. 250
JOHNSON, J.R. 249-251
JOHNSON, R.J. 163
JOHNSON, T.J. 128, 132
JOHNSON, T.V. 237
JOHNSTON, J.C. 209
JOHNSTON, P. 122, 227
JOKAT, W. 115-117
JOLIVET, D. 184

INDEX

JOLIVET, L. 81
JOLLY, D. 190
JOLY, A. 179-181
JONES, A.G. 92
JONES, A.P. 278
JONES, C. 88, 192
JONES, C.G. 190
JONES, E. 200
JONES, F.W. 92, 113
JONES, G. 113
JONES, G.O.L. 207
JONES, J.A.A. 143, 144
JONES, R. 113
JONES, R.L. 196
JONES, S. 180
JONES, T.B. 217
JONGEN, S. 184
JÖNS, H.-P. 237, 238
JÖNSSON, L. 167
JORAND, F. 151
JORDAN, C. 224
JORDAN, S. 224
JORDANA, S. 141
JORDANOVA, D. 99
JORDANOVA, N. 97, 101, 104
JORGENSEN, D. 179
JORGENSEN, H.E. 249
JÖRIN, C. 152
JÖRN, K. 86, 87
JOSA, R. 148
JOSEF, R. 150
JOSEPH, C. 157
JOSHI, M. 249
JOSSE, P. 181
JOST, D.T. 194
JOST, V. 182
JOUANNE, F. 81, 123, 134
JOUNIAUX, L. 112, 158
JOURNEL, B. 198, 199
JOUSSAUME, S. 169, 190
JOUZEL, J. 189
JOYCE, T.M. 163
JUAN, J.M. 218, 219
JUANG, H. 203
JUCHNIEWICZ, J. 221, 222, 273
JUCKES, M.N. 180, 230
JUDENHERC, S. 79, 80, 87
JUDGE, P.G. 224
JUHASZ, A. 215, 241
JUHASZ, E. 73
JUHLIN, C. 78, 79, 83, 87, 88, 90
JUHLIN, CH. 78
JUHOJUNTTI, N. 87
JULIA, A. 168
JULIAN, B.R. 78
JUNG, T. 164, 165
JUNGE, A. 112, 114
JUNKERMANN, W. 196, 197, 205, 206
JURECKOVA, J. 193
JUREWICZ, A. 237
JURGENS, R.F. 251
JÜRRENS, R. 169
JUSSERAND, C. 157
JUST, A. 108
KÄÄRIÄINEN, J. 122
KAAS, E. 165, 181, 183
KABAN, M. 92
KACIMOV, A.R. 140
KACZOROWSKA, R. 186
KADEL, S. 237
KADSKA, A. 201
KADYGROV, V.E. 228
KAGAN, B.A. 168, 259
KAHAR, J. 81, 123
KAHARABATA, S. 175
KAHLE, H. 63, 81
KAHLE, H.-G. 63
KAILA, K. 216
KAISER, D. 77, 272
KAISER, M.L. 213, 242
KAKKURI, J. 104, 127, 136
KALACHNIKOV, A.A. 68, 69
KALADZE, T.D. 263, 264
KALASS, D. 229
KALBERER, M. 280
KALEGAEV, V. 212
KALININ, A.P. 214
KALINOWSKA-SLEDZINSKA, B. 137
KÄLLEN, E. 203, 255
KALLENBACH, R. 224
KALLOS, G. 230
KALNAY, E. 203, 204
KALOGERAS, I.S. 88
KALVOVA, J. 193
KAMBANIS, K.G. 194-196
KAMEI, H. 103
KAMINSKIS, J. 134
KAMINSKY, V.D. 105, 106
KAMP, L. 237
KÄMPER, S. 172, 173
KÄMPF, J. 167
KÄMPF, M. 148
KANAKIDOU, M. 187, 204-206, 225
KANAMORI, H. 87
KANEDA, Y. 70, 71, 257
KANG, Z. 128
KANGAS, J. 216
KANGAS, M. 280
KANOSHINA, I. 260
KANWAR, R. 147
KANZAWA, H. 227
KAPALA, A. 164, 182
KAPCIA, J. 134
KAPE, S. 73
KAPE, S.J. 113
KAPICKA, A. 96, 97, 99, 101
KAPUSTINA, O.V. 273
KARAGODINA, O. 106
KARAKAISIS, G.F. 271
KARAKIN, A.V. 77, 78
KARALIOTIS, A. 82, 134, 272
KARAPANAGIOTI, H.K. 149
KARASON, H. 68
KARATAEV, G. 106
KARAVAEV, D. 192
KARAVAEVA, E.V. 193
KÄRCHER, B. 233
KARCHER, F. 225
KARCHER, M.J. 170
KARGER, U. 181
KARLIN, R. 98, 100
KARLOUKOVSKI, V. 98, 104
KARNASsOPOULOU, A. 200
KÄRNER, O. 184
KAROL, I.L. 186, 230, 233
KARPUZ, R. 74
KARSTENS, U. 185
KARSTENSEN, J. 161
KASAHARA, M. 89
KASATKINA, E.A. 65, 228
KÄSE, R.;TYLER, R. 166
KÄSE, R.H. 166
KASHCHEYEV, B.L. 209, 210
KASTLER, J. 204, 205
KASTNER, M. 118
KASYANENKO, L.G. 106
KATERJI, N. 144
KATTENBERG, A. 190
KATZENMAIER, D. 154
KATZFEY, J.J. 176
KATZUNG, G. 83
KAUFELD, L. 205, 206
KAUFMAN, M. 133
KAUFMANN, G. 71, 72, 139
KAUKER, F. 167
KAUL, N. 118
KAVOURAS, H. 187
KAWANO, H. 217
KAWANO, N. 245
KAWAR, R. 81
KAY, J. 237
KAY, M.A. 113
KAYA, O. 74
KAYEN, R. 118
KAYMAZ, Z. 212
KAZAHAYA, K. 149
KAZANTSEV, CH. 162
KAZANTSEV, E. 253
KEANE, M. 235
KEARY, R. 115
KEBEN, K. 146
KECHRA, F. 102
KECKHUT, P. 193, 226
KEEFER, D.K. 275
KEEN, A.B. 161
KEILIS-BOROK, V. 77
KELDER, H. 225, 230, 232, 233
KELDER, H.M. 232
KELEMEN, P.B. 116
KELLER, G.R. 77, 78, 83, 84
KELLER, H.U. 247, 249-251
KELLER, K. 127, 257
KELLER, W. 131
KELLETT, B.J. 216, 223
KELLEY, J.T. 71
KELLOGG, L.H. 262
KELLOGG, P.J. 215, 242
KELLY, K.A. 125, 126
KELTS, K. 159
KENNAN, S. 166
KENNEDY, K. 139, 141, 142, 151
KENNETT, B.L.N. 87
KENSELAAR, F. 135
KENT, G. 116
KENT, R. 95
KENTARCHOS, A. 232
KENYERES, A. 131, 136-138
KEPPLER, E. 214
KERAMITSOGLOU, I. 192
KERDRAON, A. 242
KERGOAT, L. 107, 157, 193
KERKEZ, S.D. 112
KERKIDES, P. 155
KERN, H. 110, 111
KERN, O. 214
KERNKAMP, H.W.J. 270
KERR, R.B. 210, 218
KERR, Y.H. 107
KERSEBAUM, K.C. 156
KERSLEY, L. 210
KESSELMEIER, J. 186-188
KESSELS, W. 110
KESSLER, M.F. 247, 248
KESTENARE, E. 164
KETELSEN, K. 232, 262
KETTMANN, G. 217
KEUER, D. 207, 231
KHAIN, V.E. 64
KHALIPOV, V.L. 209
KHAN, H. 217
KHAN, M.A. 77, 78, 114
KHANBARI, K. 117
KHAPIN, YU.B. 264
KHARIF, C. 264
KHARITONOV, A.L. 106, 107
KHASANOV, D.I. 97
KHATTATOV, B.V. 225
KHAZANEHDARI, J. 109, 110
KHODYREVA, E.JA. 73
KHOLODILOV, D.V. 66, 67
KHOMUTOV, S.Y. 86, 210
KHRISTOFOROV, A.V. 78
KHRISTOFOROVA, N.N. 69, 78
KHUDOLEY, A.K. 80
KHUNDZHUA, G.G. 193
KHURANA, K.K. 236, 240
KHVEDELIDZE, Z. 173, 269
KIDEN, P. 122
KIDO, Y. 71
KIEHL, J.T. 193
KIELY, G. 145, 146
KIGUCHI, T. 113
KIKUCHI, H. 264
KILBURN, C.R.J. 93
KILGER, R. 135
KILIAS, A. 80, 81
KILIAS, A.A. 80
KILLWORTH, P.D. 202
KILSBY, C.G. 144
KIM, D.-J. 147
KIM, V.P. 209, 210
KIM, Y.Y. 161
KIMBELL, G. 83
KIMBELL, G.S. 83
KIMURA, H. 248
KIND, R. 69, 86, 87
KINDRED, D.R. 280
KING, C. 157, 273

KING, C.-Y. 273
KING, G. 275
KING, J.C. 171, 177, 258
KING, N. 134
KING, R. 81
KINOSHITA, H. 82
KIOROGLOU, S. 172
KIPFSTUHL, J. 100
KIRBY, M.E. 90
KIRCHENGAST, G. 124, 129
KIRCHGÄSSNER, K. 263
KIRCHNER, F. 228
KIRCHNER, G. 135
KIRCHNER, I. 183
KIREENKOVA, S.M. 108
KIRIAN, D.G. 256
KIRIAN, G.V. 72
KIRK, R. 249-251
KIRKBY, M.J. 158, 159
KIRKWOOD, S 207, 208, 231
KIRKWOOD, S. 207, 208
KIROV, V. 104
KIRSCH, E. 213, 214, 245
KISELEV, A.A. 230, 233
KISELEV, A.I. 77, 78
KISIMOTO, K. 115
KISSEL, C. 98, 100, 189, 190
KISSLING, E. 63, 79, 82, 84
KISTLER, L.M. 214, 223
KIT, E. 267
KITTEROD, N.-O. 140
KIUCHI, H. 135, 136
KIVELSON, M. 240, 241
KIVELSON, M.G. 236, 240
KIVI, R. 228, 230
KIVMAN, G.A. 125, 126, 202
KJELDSETH-MOE, O. 224, 225
KLADIVKO, E. 147
KLAESCHE, D. 115
KLAESCHEN, D. 117, 119
KLÄSCHEN, D. 115
KLASSEN, A. 223
KLATT, C. 135
KLAVDIEVA, M.M. 122
KLECKER, B. 214, 223
KLECKER, R.A. 85
KLEEWEIN, P. 243
KLEIDON, A. 146
KLEIN, M. 148
KLEIN, R. 149
KLEIN, S.A. 192
KLEIN, U. 227
KLEIN, W. 255
KLEINEIDAM, S. 139
KLEIPOOL, Q. 209
KLEMASZEWSKI, J. 237, 238
KLEPP, C. 179
KLESPER, C. 66, 67, 73, 74, 76
KLEY, D. 187
KLIMOV, S. 220-222, 273
KLIMOV, S.I. 220
KLINGBEIL, R. 139
KLINGE, K. 86, 87
KLINGER, J. 242
KLINGER, L. 186
KLINGER, Y. 123
KLINGSPOHN, M. 165, 203
KLIORE, A.J. 240
KLOHN, W. 155
KLOKOCNIK, J. 125
KLOSKO, S. 122
KLOTZ, J. 81
KLOTZ, M.J. 126
KLYMOVYCH, E. 107
KLYUSHIN, J.G. 120, 121
KMINEK, G. 246
KNAB, M. 101
KNABNER, P. 140
KNACKE, R. 248
KNACKE, R.F. 248
KNIGHT, J.R. 225
KNIPE, R.J. 113
KNOCHEL, H. 163
KNOLL, M. 163
KNOLLENBERG, J. 241
KNOX, R. 150
KNUDSEN, B.M. 228
KNUDSEN, J.M. 249-251
KNUDSEN, P. 124-127, 130
KNUDSEN, S. 149
KNUDSEN, T. 125, 126
KNYSH, V.V. 168
KOBAYASHI, K. 115
KOBRUNOV, A.I. 66, 67
KOCHAN, H. 243, 244
KOCHEGURA, V.V. 189
KOCHEMASOV, G. 236, 245
KODAIRA, S. 82
KODERA, K. 193
KOEBERLE, C. 169
KOEHLER, U. 230, 245
KOEKKOEK, H.S. 165
KOELLIKER, J.K. 152
KOEPKEN, C. 129
KOFMAN, W. 209, 217, 219, 242
KOHL, J. 213
KOHL, J.L. 225
KOHL, T. 65, 110
KOHLBECK, F. 107
KÖHLER, I. 233
KÖHLER, S. 205, 206
KÖHLER, U. 245
KOHLMANN, J.-P. 197, 198
KOHLSTEDT, D.L. 111
KOHSIEK, A. 210, 211
KOHUT, I. 67
KOIDL, F. 135
KOIVULA, H. 134
KOKSHAROV, V. 112
KOKUBUN, S. 212, 217, 220
KOKUBUN, S.K. 214
KOLACZEK, B. 133
KOLATSCHEK, J. 170
KÖLBL, R. 200
KOLENKIEWICZ, R. 134
KOLEV, S.I. 228
KOLEVA, R.T. 211, 218
KOLLE, O. 177
KOLLI, O. 63
KÖLLING, M. 151
KÖLM, J. 194, 195
KOLOMBET, V.A. 121
KOLOUTSOU-VAKAKIS, S. 229
KOLTERMANN, K.P. 162
KOLTSOV, N.E. 135
KOLTYSHEV, A. 169, 171
KOMAROVA, N.L. 263
KOMATINA, M. 157
KOMATINA, S. 149, 157
KOMATSU, G. 238
KOMEN, G.J. 171, 188
KOMMINAHO, K. 83
KOMUT, T. 64
KONDO, T. 135, 136
KONDOLF, M.G. 160
KONDOPOULOU, D. 104
KONDRATYEV, K.YA. 229
KÖNIG, R. 124, 129, 234
KÖNIG-LANGLO, G. 194
KONO, Y. 71
KONONEN, K. 260
KONONOVA, M. 156
KONRADOV, A.A. 120, 121
KONSTANTINENKO, L. 102
KONSTANTINOVSKAIA, E. 92
KONTIO, K. 141
KONTNY, B. 136
KONTUR, I. 253
KOOI, H. 122, 142, 146
KOOP, R. 130
KOPERSKI, P. 222
KOPF, A. 76, 119
KOPNICHEV, YU.F. 88
KOPP, A. 240, 241
KOPP, C. 115
KÖPP, F. 235
KOPPAN, A. 112, 113
KOPPELT, U. 103
KOPPMANN, R. 194, 204, 205
KORCHAGIN, I. 105
KOREN, Z. 86
KORENAGA, J. 116
KOREPANOV, V. 67, 107, 212, 221, 273
KORJA, A. 73, 87
KÖRMENDI, A. 107, 215
KORN, M. 84
KORNBLUEH, L. 129
KÖRNER, U. 99, 119
KORNILOV, I.A. 220
KOROBEINIKOV, V.P. 254
KOROTAEV, G.K. 168
KOROTAEV, M.V. 73
KORTE, M. 107
KORTH, A. 212
KORTH, W. 126, 128
KORYAKIN E.D. 70
KORYAKIN, E.D. 72
KOSA-KISS, A. 180
KOSAREV, G.L. 67, 87
KOSAREV, V.E. 99
KOSCH, M. 210, 218
KOSCH, M.J. 210, 211
KOSCHITZKY, H.-P. 150
KOSCHNY, D. 244
KOSEK, W. 133
KOSKINEN, H. 220
KOSKINEN, H.E.J. 217
KOSKINNEN, H. 221
KOSLOFF, D. 86
KOSMIDIS, E. 280
KOSSACKI, K. 222
KÖSSLER, P. 65, 96, 97
KOSSOBOKOV, V.G. 255
KOSTADINOV, I. 261
KOSTECKY, P. 67
KOSTELECKY, J. 125, 136, 137
KOSTER, R.D. 146
KOSTIANOY, A.G. 164, 165, 167, 172, 173
KOSTINA, R.I. 92
KOSTROV, L.S. 210
KOSTYANEV, S. 119
KOSTYANEV, S.G. 65, 71, 114
KOSTYRYA, V.YA. 111
KOSTYUCHENKO, I.G. 207
KOSZINSKI, S. 148
KOTA, J. 215
KOTKOVA, J. 94
KOTRELEVA, O.V. 133
KOTRONI, V. 179
KOTTEGODA, N.T. 255
KOTZEV, V. 81
KOUBA, J 124
KOUDELLA, C. 257, 258
KOUDELLA, C.R. 263
KOUIMTZIS, T. 280
KOUKER, W. 208
KOUKIS, G. 276
KOULAKOV, I. 77
KOURIS, S.S. 219
KOUROUMBALI, F. 129
KOURTIDIS, K. 187, 197, 198
KOUSKOUNA, A. 200
KOUSKOUNA, V. 274
KOUSSIS, A.D. 151
KOUTINOV, I.G. 106, 275
KOUTS, T. 168
KOUVARAKIS, G. 204, 205, 280
KOUWENHOVEN, T.J. 63
KOUZNETSOV, I. 78, 79
KOUZNETSOVA, E. 78, 79
KOVACEVIC, V. 172
KOVACHEVA, M. 103, 104
KOVACS, P. 215
KOVALCHUC, D.V. 147
KOVALENKO, I.G. 265
KOVALEVSKY, V.V. 87
KOVRASHKIN, R. 221
KOVRAZHKIN, R. 221
KOVRAZHKIN, R.A. 220-222
KOWALCZYK, E.A. 176
KOWALSKA, B. 200, 201
KOWALSKI, A.S. 175, 177
KOWOL-SANTEN, J. 231
KOYAMA, J. 245
KOYAMA, Y. 135, 136
KOZEL, R. 151
KOZELOV, B.V. 212

KOZELOVA, T.V. 212
KOZIN, I. 218
KOZLENKO, V.G. 73
KOZLENKO, Y. 105
KOZLOVA, E. 119
KOZLOWSKI, B. 143
KOZUR, H.W. 64
KRACKE, D. 77
KRAFFT, C. 216
KRAFT, M. 251
KRAFT, S. 150
KRAHMANN, G. 165
KRAMM, G. 185
KRAMM, U. 83
KRANKOWSKI, A. 134
KRASAKOPOULOU, E. 169
KRASNOPOLSKY, V.A. 210, 238, 239, 242
KRASNOSEL'SKIKH, V. 216, 217, 240
KRASNOSELSKIKH, V. 223
KRASNOV, V. 264
KRASNOVA, M.A. 86
KRASOVSKAIA, I. 144, 154
KRASTEL, S. 267
KRAUS, A. 197, 198, 204, 205, 250
KRAUSS, W. 169
KRAUTSTRUNK, M. 280
KRAVANJA, S. 91
KRAVCHENKO, S. 83
KRAWCYK, CH. 83
KRAWCZYK, C.M. 83, 84
KREEMER, C. 71
KREILEIN, H. 146
KREJCI, O. 85
KRENTZ, O. 81
KRESL, M. 65, 66
KRESTINA, N. 245
KREUSER, T. 150
KREUZWIESER, J. 230
KREYSCHER, M. 170
KRIEK, M. 153
KRINNER, W. 160
KRISCHKE, U. 204-206
KRISHNA, A.P. 275
KRISP WORKING GROUP 77
KRISTIANSEN, J. 185
KRISTJANSSON, J.E. 185
KRISTJANSSON, L. 98
KRIVASHEEV, S. 273
KRIVOLUTSKY, A. 207, 208, 227, 228
KRIVOSHEYA, V.G. 167
KROEGER, H. 177
KROEGER, M. 176
KRÖGER, J. 162
KROHE, A. 80
KROL, M. 225
KROM, T.D. 140, 156
KROMP-KOLB, H. 231
KROMP-KOLB, L.H. 226, 227
KRONBERG, P. 238
KRONER, C. 92, 122
KRS, M. 102
KRSOVA, M. 102
KRUCHENITSKY, G.M. 207
KRUCZYK, M. 136-138
KRUEGER, F. 87
KRÜGER, B.C. 207, 208, 228
KRÜGER, H. 240
KRÜGER, K. 208
KRÜGER, U. 196
KRUHL, J.H. 81, 111
KRUIJFF, M. 67
KRUIJT, B. 176
KRUIVER, P.P. 97
KRUMSIEK, K. 100
KRUPP, N. 241
KRYLOV, O. 76, 119
KRYMSKII, A.M. 223
KRZYK, M. 156
KRZYSCIN, J.W. 228, 230
KRZYSZTOFIK, K. 201
KUANG, W. 98
KÜBLER, B. 198
KUBLER, L. 96, 97, 105, 106
KUBO, A. 82
KUBOTA, T. 278
KUCERA, T. 225
KUCEROVA, L. 71
KUCHAREK, H. 215, 222, 224
KUCHMENT, L.S. 147
KÜCK, J. 78
KUDELA, K. 218, 221
KUDELAV, K. 220
KUDELYA, L. 121
KUDO, H. 103
KUDRYAVTSEVA, L.P. 151, 152
KUHN, G. 100
KÜHRT, E. 241
KÜHTREIBER, N. 131
KUJAWA, L. 136, 137
KUK, V. 86
KUKHARTES, V.P. 175
KUKOWSKI, N. 82, 115, 117, 118
KULENKAMPFF, J. 108, 110
KULL, D. 269, 270
KÜLL, V. 208
KULLAS, T. 168
KÜLLMANN, K. 209
KULMALA, M. 192
KULOSHVILI, S. 65
KUMAR, P. 146
KÜMPEL, H.-J. 110
KUNDZEWICZ, Z. 144
KUNG, K.-J.S. 147
KUNIMORI, H. 135
KUNIN, N.YA. 73
KUNITSYN, V.E. 130, 209, 212
KUNOW, H. 223
KUNZ, R. 185
KÜNZI, K. 209, 230
KÜNZI, K.F. 227
KUO, A. 266
KUO, F.S. 209
KUO, N.-J. 126
KUO, W.-L. 153
KURAPOV, A.L. 125, 126, 202
KURAT, G. 243, 245
KURDJUKOVA, T. 110
KURGANSKY, M.V. 191, 256, 265
KURKA, W. 136, 137
KURKIN, A.A. 264
KÜRSCHNER, D. 207, 209, 210
KURTENBACH, R. 197, 198
KURTH, W. 241, 242
KURTHS, J. 256, 257, 273
KURTZ, R.D. 92
KURZ, C. 185, 230
KURZ, W. 85
KUSCH, O. 108, 113
KÜSEL, K. 151
KUSHTANOVA, G.G. 141
KUSKA, J.-P. 221, 222
KUSTAS, W.P. 154
KUTIEV, I. 219
KUTLU, Y.A. 70
KUWAHARA, Y. 113
KUYPER, C. 119
KUZHEVSKIJ, B.M. 225, 272
KUZMIERCZYK-MICHULEC, J. 182
KUZMIN, R. 251
KUZNETSOV, G.I. 197, 198, 228
KUZNETSOV, L. 169
KUZNETSOV, V.V. 75, 86, 97, 210, 252
KUZNETSOVA, V. 137, 138
KVANSICKA, M. 86
KVENVOLDEN, K. 118
KVENVOLDEN, K.A. 118
KWASNIOK, F. 256
KWONG, C.M. 200
KYRÖ, E. 228, 230
KYRÖLÄ, E. 213, 214, 226, 242
LA BARBERA, P. 143, 145, 155, 268
LA ROCCA, M. 88, 92, 278
LA TORRE, F. 279
LAAKSO, L. 176
LAANEARU, J. 168
LABARTHE-HERNANDEZ, G. 278
LABAT, D. 157
LABEYRIE, L. 65, 100, 189
LABITZKE, K. 230
LABOREL, J. 122, 123
LABOREL-DE GUEN, F. 123
LABROSSE, G. 68
LACARRERE, P. 157
LACASCE, J. 166
LACASCE, J.H. 259
LACHLAN-COPE, T. 170
LACKMANN, W. 80
LACOMBE, C. 215
LACROIX, G. 172, 173
LADD, A.F. 109
LADOUCHE, B. 158
LAFORE, J.P. 188
LAGADEUC, Y. 253
LAGERKVIST, C.-I. 236
LAGERLOEF, G.S.E. 127
LAGERROS, J.S.V. 236, 242, 247
LAGG, A. 241
LAGOUARDE, J.P. 107
LAGOUTTE, D. 211
LAGOUVARDOS, K. 179
LAGROIX, F. 96, 97
LAGUZZI, M.M. 270
LAHMANN, W. 184
LAHOZ, W.A. 228, 256
LAHUIS, F. 248
LAIME, S. 270
LAINE, V. 280
LAITAT, E. 176
LAJ, C. 98, 100, 189
LAKIN, M.J. 195
LALLANA, C. 160
LALLEMAND, S. 82, 117
LALLEMENT, R. 213, 214, 242
LALOU, C. 117
LAMARCHE, G. 70
LAMARCHE, J. 83
LAMAUD, E. 177
LAMB, R. 140, 270
LAMBARE, G. 67
LAMBECK, K. 71, 72, 122, 128
LAMBERT, A. 239
LAMBERT, D. 174, 180
LAMBERTI, A. 259
LAMBERTI, P. 153
LAMMER, H. 238, 239
LAMMERING, B. 252, 253
LAMMING, X. 220
LAMPEN, P. 249, 251
LAMY, P. 225
LAMY, P.L. 225
LANA, X. 91
LANCELOT, Y. 65, 100
LANCI. L. 101
LANCI, L. 101
LAND, C. 231
LANDBERG, L. 249
LANDES, M. 83, 87
LANDGRAF, J. 186
LANDGRAF, M. 242
LANDRINI, M. 264
LANEVE, G. 67
LANG, K.R. 225
LANGBEIN, J. 94
LANGE, H. 256
LANGE, J.M. 103
LANGE, M. 207
LANGEMATZ, U. 208
LANGEN, J. 226
LANGENBERG, H. 202
LANGENDÖRFER, U. 194
LANGER, J. 227
LANGEREIS, C.G. 97, 101
LANGEVIN, Y. 245
LANGFJELL, I. 203
LANGLAND, R.H. 179
LANGLEY, R.B. 129, 135
LANGMANN, B. 262
LANGSHOLT, E. 140
LANGSRUD, O. 268
LANKREIJER, A. 85
LANOS, P. 104
LANOS, PH. 104
LANOTTE, R. 72
LANSIGU, C. 113
LANZA, L. 143, 154, 268
LANZA, L.G. 145, 155
LANZA, V. 79

LANZEROTTI, L.J. 214
LAPAQUELLERIE, Y. 199
LAPENNA, V. 252, 272
LAPENTA, G. 222
LAPEYRE, G. 232, 261
LAPORTE, D. 95, 111
LARA, L. 240
LARCHEVEQUE, G. 261
LARCHEVEQUE, M. 253, 259
LARIO, D. 214
LARNICOL, G. 124
LAROCHE, P. 234
LARONE, J.B. 153, 154
LARONNE, J. 143
LARONNE, J.B. 143, 160
LARSEN, B. 186
LARSEN, B.R. 186, 187
LARSEN, G. 94, 95
LARSEN, H.C. 116
LARSEN, J.C. 113
LARSEN, S. 174, 249
LARSEN, S.E. 249
LARSEN, T.B. 77
LARSON, D. 212
LARSON, D.E. 212
LARSON, E. 69
LARSON, J. 203
LARSON, K. 71
LARSON, S. 249
LASANTA, T. 160
LASSEUR, CH. 246
LASTOVICKA, J. 208, 218
LATHAM, A. 99
LATHUILLERE, C. 209, 210
LATIF, M. 188, 190
LATOUCHE, C. 199
LATRON, J. 148, 152
LAU, W.K.M. 192
LAUBACH, J. 175
LAUBENBAKH, E. 176, 271
LAUNIAINEN, J. 170, 171
LAURAIN, O. 134
LAURCIJS, R. 247
LAURENT, H. 188, 189
LAURENT, J.P. 157, 158
LAURILA, T. 176, 177, 187
LAURSEN, J. 115
LAUTERJUNG, J. 78, 79
LAUTH, U. 214
LAVABRE, J. 160, 179, 269
LAVAL, J.-P. 266
LAVAL, K. 144, 192
LAVECCHIA, G. 90
LAVERDET, G. 194-197
LAVORAL, S. 160
LAVORATO, M. 184
LAVRENTEV, M.M. 121
LAW, K. 197
LAW, K.S. 195, 232, 262
LAWRENCE, D.J. 246
LAWRENCE, J.G. 225
LAXON, S. 130
LAXON, S.W. 125
LAY, G. 213
LAYER, P. 80
LAZAREV, A.A. 253
LAZARO, C. 127
LAZARO, R. 276
LAZAROU, Y.G. 194-196
LAZAUSKIENE, J. 73
LAZURE, P. 167
LAZUTIN, L.L. 212
LAZZAROTTO, A. 76
LAZZAROTTO, B. 228
LAZZONI, E. 164
LE BARBE, L. 188
LE BEGAT, S. 79
LE BISSONNAIS, Y. 156, 158
LE BRAS, G. 194-197
LE BRUN, B. 277
LE CARLIER DE VESLUD, C. 79, 80
LE CLAINCHE, Y. 169
LE CLOAREC, M.-F. 95
LE FORT, P. 81
LE GOFF, M. 104
LE MEUR, E. 72
LE MOUEL, J.L. 158
LE QUEAU, D. 212, 223
LE ROULLEY, J.-C. 280
LE ROULLEY, J.C. 280
LE ROUX, D.Y. 264
LE STUNFF, Y. 69
LE THIEZ, P. 158
LE TRAON, P.-Y. 124-126, 130
LE TRAON, P.Y. 124-126, 129, 201
LE TREUT, H. 183, 188, 192
LEACH, D. 102
LEACH, H. 171, 181
LEAN, H. 180
LEBBE, L. 140
LEBEDEV, K.V. 162
LEBEDEV, S. 70
LEBEDEV, S.A. 125, 126
LEBEDEVA, V.V. 216
LEBEL, T. 157, 188
LEBELLEGARD, P. 69
LEBLANC, F. 213
LEBLANC, S. 266
LEBLANC, T. 208
LEBLANC, Y. 241, 242
LEBLANC,Y. 242
LEBLOIS, E. 157
LEBONNOIS, S. 239
LEBORGNE, S. 89
LEBOURGES, A. 166
LEBRON, C.A. 150
LEBRUN, J.-F. 70
LEBURN, J.-F. 70
LECACHEUX, A. 243
LECACHEUX, J. 239
LECERF, D. 86
LECHNER, W. 134
LECINSKI, A. 213
LECKEBUSCH, G. 204, 205
LECKEBUSCH, J. 103
LECOANET, H. 101
LECOMTE, P. 151
LECOMTE, V. 156, 158
LEDER, S. 208, 230, 232, 262
LEDESERT, B. 139
LEDIMET, F. 153
LEDOUX, E. 151, 157
LEDWELL, J.R. 161
LEE, C.C. 210
LEE, E. 250
LEE, H. 118, 208
LEE, J.-C. 274
LEE, J.D. 196, 197
LEE, K.-M. 208
LEE, M. 83, 84
LEE, S.-M. 117
LEECH, K. 247, 248
LEER, E. 223
LEEUWENBURGH, O. 125
LEFEBVRE, B. 216, 223
LEFEBVRE, J.P. 120
LEFEUVRE, F. 211, 221
LEFEVRE, F. 208, 227
LEFRANCOIS, L. 199
LEG 173 SHIPBOARD SCIENTIFIC PARTY 116
LEGER, A. 248
LEGG, T.P. 203
LEGLER, D.M. 182
LEGOSTAEVA, O.V. 66, 73
LEGRAND, J.-F. 66
LEGRAND, M. 177
LEGRAND, P. 162
LEGRAS, B. 232, 261, 266
LEGRESY, B. 127
LEGUTKE, S. 183
LEHMAN, B. 98, 100
LEHMANN, A. 167, 168
LEHMANN, D. 177
LEHMANN, R. 131
LEHRER, E. 194
LEI, X. 85
LEIBROCK, E. 205, 206
LEIBUNDGUT, C. 152
LEIBUNDGUT, CH. 154, 156
LEICHTFUSS, A. 154
LEIDL, R. 139
LEINERT, CH. 247
LEITINGER, R. 219, 220
LEITNER, M. 184
LELGEMANN, H. 119
LELIEVELD, J. 228, 230, 232
LELLOUCH, E. 239, 243, 246-248
LELONG, M.-P. 257
LEMAIRE, J. 217
LEMAIRE, J.F. 211, 218, 223
LEMAIRE, P. 213, 224, 225
LEMAITRE, Y. 179, 180
LEMARCHE, J. 84
LEMKE, D. 247
LEMKE, P. 169, 170
LEMMON, M. 239, 249
LEMMON, M.T. 239, 249
LEMOINE, F.G. 104, 124, 130
LEMOINE, J.M. 124
LEMONE, M.A. 175
LEMONNIER, C. 114
LEMOUEL, J.L. 133
LEMUR, D. 219
LENARDUZZI, L. 105
LENAT, J.-F. 94
LENAZ, R. 179
LENDVAY, J.M. 149
LENDVAY, J.V. 150
LENG, X. 159
LENGYEL, S. 104
LENHARDT, W. 274
LENK, M. 142, 156
LENNARTZ, B. 157
LENORMAND, R. 140
LENOTRE, N. 75
LENSCHOW, R. 207
LENTZ, H. 245
LENZ, C.-J. 177
LENZ, R. 186
LEONARD, K. 235
LEONARD, S. 170
LEONARDI, S. 278
LEONE, G. 233, 235
LEONHARDT, D. 81
LEONOWICZ, P. 85
LEORAT, J. 215
LEPPING, R.P. 212, 214, 217, 220
LEPVRIER, C. 74
LEQUEAU, D. 212, 223
LERASLE, N. 189
LEREDDE, Y. 202
LERNER, A. 231
LERNER, D.N. 150
LESCHIUTTA, I. 90
LESCLAUX, R. 194, 195
LESNE, O. 77, 78
LESPINASSE, M. 109, 113
LESTER, M. 209, 217
LESUEUR, V. 239
LESZCZYNSKI, W. 136, 137
LETH, J.O. 91
LETREUT, H. 193
LEUENBERGER, J. 147
LEUS, S.G. 210
LEVASSEUR-REGOURD, A.C. 241, 244
LEVCHENKO, I. 153, 154
LEVELT, P.F. 225, 226
LEVEQUE, F. 101
LEVEQUE, J.-J. 68, 69
LEVI, S. 98
LEVIN, B.W. 265, 273
LEVITIN, A.E. 212
LEVITUS, S. 163
LEVITZ, P. 140
LEVKOV, L. 184
LEVRET, A. 274
LEVY, C. 225
LEVY, M. 163, 166
LEVY, M.F. 219
LEVY, P.E. 176
LEVY, V.V. 265
LEWANDOWSKI, M. 84, 96, 97
LEWCHUK, M. 102
LEWCHUK, M.T. 98
LEWELING, M. 236
LEWIN, E. 97, 262
LEWIS, A. 187

INDEX

LEWIS, A.C. 197
LEWIS, R.V. 217
LEWIS, S.E. 238
LEWIS, S.R. 238, 239
LEZEAUX, O. 226, 227
LI, H.-W. 126
LI, K. 220
LI, L. 193
LI, S. 209
LI, X. 69
LI, Z. 229
LI, Z.X. 183
LIAO, Z. 77
LIBIN, I.YA. 218
LICHNER, L. 147, 148
LICHTEN, S. 124
LICHTENBERG, G. 241, 247
LICHTENEGGER, H. 240, 241
LIEBAULT, F. 143
LIEBERMANN, S.S. 177
LIECHTI, D. 272
LIFERMANN, A. 126
LIGER, E. 151
LIGHT, J.P. 103
LIGI, M. 117
LILENSTEIN, J. 210
LILENSTEN, J. 209, 210, 217, 240
LILJEBLADH, B. 168
LILOVER, M.-J. 168
LIM, T. 247, 248
LIMAYE, S.S. 236
LIN, C.A. 264
LIN, N. 242
LIN, R. 220, 236
LIN, R.P. 212, 214, 240
LINDAU, R. 181
LINDERMEIR, E. 233
LINDH, O. 203
LINDHOLM, C.D. 77
LINDO, R. 77
LINDORS, V. 187
LINDQUIST, W.B. 108
LINDROTH, A. 175, 176
LINDSKOG, M. 202, 203
LINKERT, G. 240
LIONELLO, P. 178, 201
LIPPERT, E. 233
LIPS, A.L.W. 81
LIPS, U. 168, 260
LIS, D.C. 243
LISOV, A.A. 210
LISS, P.S. 195
LISSAKOV, YU. 273
LISSAUER, J.J. 248
LITHGOW, C. 72
LITVINE, A. 219
LIU, C.-L. 184
LIU, C.H. 210
LIU, CH. 209
LIU, H. 87
LIU, H.X. 209
LIU, J.Y. 209, 210
LIU, Q. 182
LIU, X.-F. 69
LIVENGOOD, T.A. 241
LIVI, S. 216, 217, 241
LIVSHITS, M.A. 215
LIVSHITS, YU.YA. 64
LIZARRALDE, D. 116
LLASAT, M.-C. 160, 269, 270
LLAVONA, J. 109
LLEWELLYN SMITH, S.G. 257
LLINAS, O. 163
LLORCA, J. 244
LLORENS, J.F. 156, 157
LLORENS, P. 148, 152
LLORET, A. 111
LLOVET, J. 159
LLOYD, J.W. 141
LOBO, A. 154, 157
LOBZIN, V.V. 211
LOCAICEK, T. 89
LOCKWOOD, M. 207, 211
LODER, J. 202
LODOLO, E. 118
LOENG, H. 170
LOERZER, J. 197, 198
LOEWE, P. 164
LOEWENTHAL, D. 66
LOGACHEV, N.A. 87
LOHMANN, G. 161
LÖHNERT, U. 184
LOKMER, I. 88
LOKSHYN, YU. 137, 138
LOMAX, A. 86
LOMBARDO, F. 145
LONGDOZ, B. 176
LONGHETTO A. 193
LONGHETTO, A. 269
LONGO, A. 93, 278
LONGO, S. 259, 263
LOOHUIS, J. 134
LOOHYIS, J.J.P. 70
LOPES, I. 109, 110, 276
LOPES, J.F. 267
LOPEZ MALDONADO, J.D. 200
LOPEZ, A. 186
LOPEZ, C. 259
LOPEZ, J. 252
LOPEZ, O. 171
LOPEZ, P. 165
LOPEZ-ALMANSA, F. 276
LOPEZ-JURADO, J.L. 172
LOPEZ-MORENO, J.J. 240
LOPEZ-SOLER, A. 178
LOPEZ-VERA, F. 157
LORANT, V. 191
LORBACHER, K. 162
LORD, L.D. 141
LORENSON, T.D. 118
LORENTE, R. 248
LORENZ, F.P. 63, 64, 85
LORENZ, R. 239
LORENZ, R.D. 239, 243, 244
LORENZANI, S. 259
LORNE, B. 112
LORRA, S. 103
LORRIMER, S.J. 202
LOSITO, G. 110
LOSNO, R. 186, 280
LOTTER, A.F. 101
LOUANCHI, F. 163
LOUARN, P. 215, 223, 241, 242
LOUBET, M. 157
LOUBRIEU, B. 120
LOUCHART, X. 157, 160
LOUDEN, K.E. 116
LOUGH, M. 124
LOUIS-ROSE, K. 150
LOUVAT, D. 151
LOUVEL, S. 202
LOVE, J.J. 97, 98
LOVEGROVE, A.F. 256
LOVEJOY, S. 65, 192, 215, 252-255
LOVETT, A. 194
LOVHAUG, U.P. 211
LOWE, J.A. 193
LOWRIE, W. 101
LOYAUX, S. 151
LÖYE-PILOT, M.-D. 199
LU, H. 118
LÜBKEN, F.-J. 207
LUCAS, A. 277
LUCENTE, F.P. 63, 88
LUCERI, V. 124
LUCHETTA, L. 186
LUCINI, M. 77
LÜCK, E. 103
LUCK, J.-M. 157
LUCOT, E. 158
LUDHOVA, L. 94
LUDWIG, B. 158
LUE, H.Y. 209
LUESCHEN, E. 82
LUGMAIR, G.W. 245
LUHMAN, J.G. 240
LÜHR, H. 127
LUKAS, D. 118
LUKAS, R. 163, 181, 182
LUKASHIN, V.N. 261
LUKIN, D.V. 265
LUNA, B. 159
LUNARSAT TEAM 246
LUNATI, I. 141
LUND JENSEN, S. 83
LUND, C.E. 83, 84
LUND, E.J. 214, 223
LUND, M.R. 175
LUNDBEK HANSEN, D. 70
LUNDIN, L.-C. 146
LUNDIN, R. 217
LUNINE, J. 249
LUNINE, J.I. 248
LUNKEIT, F. 232, 258, 261
LUNN, R.J. 139
LUNNON, R.W. 234, 235
LUOSTO, U. 83, 84
LUPTAK, B. 84
LURIA, M. 195
LÜSCHER, P. 101
LUSTFELD, H. 259
LUTCHITSKAYA, M.V. 80
LUTHCKE, S.B. 124
LUTHER III, G.W. 199
LUTHER, M.E. 200
LÜTHI, D. 155, 190
LUTHI, S. 108
LUTJEHARMS, J. 166
LUTSENKO, V. 221
LUTSENKO, V.N. 221
LUTTAZZI, C. 181
LUX, M. 161
LUZI, L. 275, 279
LUZON, F. 91, 277
LYARD, F.H. 125
LYATSKY, W. 217
LYCK, E. 177
LYKKE-ANDERSEN, H. 68, 90
LYKOSSOV, V.N. 174
LYON-CAEN, H. 81
LYSKOVA, E. 75
MA, C. 133, 135, 183
MA, C.-C. 183
MA, S.D. 109
MA, S.Y. 209
MAAS, L.R.M. 162
MACCHIAVELLI, N. 277, 278
MACCIATO, M. 252
MACDOWALL, R.J. 242
MACEDO, O. 277
MACEDONIO, G. 93, 278
MACEK, W.M. 215, 257
MACELLONI, G. 155, 280
MACHARASHVILI, T. 257
MACHETEL, P. 69
MACHIN, J. 159
MACHU, E. 126
MACKAY, N. 268
MACKAY, R. 139-141
MACKE, A. 185
MACKENZIE, A.R. 228
MACKIE, R. 114
MACPHERSON K.P. 224
MACPHERSON, J.I. 175
MACQUAR, J. 102
MADARIAGA, R. 74, 88, 89
MADDEN, R.A. 128
MADE, B. 151, 158
MADEC, G. 166, 191
MADER, C.L. 268
MADER, D. 74
MADSEN, H. 201
MADSEN, M.B. 250, 251
MAECHEL, H. 164, 182
MAGAGNOSC, J.S. 279
MAGALHAES, J. 249
MAGALHAES, J.A. 249
MAGER, P. 186
MAGGIO, F. 91
MAGGIORE, A. 172
MAGIERA, T. 101
MAGLIULO, R. 278
MAGLIULO, V. 177
MAGUIN, F. 196, 197
MAGUIRE, P.K.H. 77, 78
MAGUNIA, A. 114
MAGYARI, O. 90
MAHFI, A. 114

MAHJOUB, O.B. 258
MAHNKE, P. 200
MAHONEY, J. 234
MAHONEY, J.L. 234
MAI, H. 104, 105, 133, 241
MAIA, A. 157
MAIA, D. 225
MAILLARD, J.P. 239
MAILLET, N. 199
MAIN, I. 109, 110, 255, 271
MAIN, I.G. 113
MAISEY, P.E. 203
MAISONGRANDE, P. 107
MAISSURADZE, G. 97
MAIXNER, U. 184
MAJ, S. 107
MAJEWSKI, D. 177
MAJEWSKI, E. 69, 75
MAKALKIN, A.B. 248
MAKARENKO, G.F. 75, 84
MAKAROV, N.A. 211
MAKAROVA, M.G. 276
MAKAYA, M. 96, 97
MÄKELÄ, J.M. 192
MAKELA, J.S. 217
MAKHMUDOV, E.DJ. 156
MAKIN, V. 202
MAKIN, V.K. 182
MAKINEN, J. 72, 122, 127, 136
MÄKINEN, T. 213, 214, 242
MAKINSON, K. 171
MAKOVSKY, Y. 86
MAKRIS, J. 83
MAKROPOULOS, K. 114, 200, 277
MAKROPOULOS, K.C. 274
MAKSIMOVIC, M. 214
MAKSYMCHUK, V. 137, 138
MALACIC, V. 169
MALAGUTI, A. 199
MALAMA, YU.G. 214
MALAMUD, B.D. 77, 237, 252, 254, 255, 257
MALARA, F. 215
MALARDEL, S. 179
MALASPINA, F. 150
MALAVIEILLE, J. 92
MALAVIELLE, J. 82, 117
MALGRAT BREGOLAT, P. 270
MALGUZZI, P. 178, 179, 201
MALHERBE, J.M. 225
MALIKOVA, K.SH. 122
MALIMON, A.N. 120, 121
MALIN, M. 251
MALINGRE, G. 280
MALINGRE, M. 220-222
MALINOVSKY, D.N. 142, 151, 152
MALINOWSKI, S.P. 256
MALKIN, Z. 134
MALKKI, A. 217
MÄLKKI, A.M. 217
MALL, U. 213, 214, 217, 245
MALLANTS, D. 139, 147
MALLET, I. 180
MALMBERG, S.AA. 165
MALONE, S. 82
MALOVA, H.V. 216
MALSERVISI, R. 70-72
MALTBY, P. 213, 224, 225
MALTSEV, YU.P. 212
MALUSKI, H. 79
MALZ, S. 168
MAMADOU, S. 209
MAMBOLE, A. 68
MAMMOUDIA, M. 100
MAMUT WORKING GROUP 115, 117
MAN, O. 102
MANCA, B. 172
MANCIER, C. 231
MANCINI, F. 129
MANDRESCU, N. 271
MANES, F. 187
MANETTI, P. 95
MANEUX, E. 199
MANGA, M. 263
MANGANO, P. 89
MANGENEY, A. 215, 222, 239, 278
MANGIANTI, F. 189
MANGIN, A. 157
MANGOLD, N. 237, 238
MANLEY, T. 169
MANN, G. 214, 215, 222, 223, 242
MANN, I. 213, 248, 249
MANN, P. 81
MANNINEN, J. 216
MANNINEN, R. 216
MANNOZZI, L. 186, 192
MANOILO, A.V. 228
MANRUBIA, S.C. 92
MANSO ORGAZ, M.D. 191
MANSY, J.L. 83, 84
MANTHEI, G. 91
MANTILLA, E. 178, 229
MANTOVANI, E. 64, 65, 274
MANTOVANI, F. 279
MANZELLA, A. 114
MANZINI, E. 231
MANZINO, A. 134
MARACCHI, G. 144
MARAIS, C. 235
MARAMAI, A. 268
MARANI, A. 254, 268, 279
MARANI, M. 199, 252
MARC, V. 154, 160
MARCACCIO, M. 260
MARCAK, H. 110
MARCHAL, E. 166
MARCHAL, G. 139
MARCHENKO, A.G. 251
MARCHESI, S. 269
MARCHESINI, C. 136
MARCHETTI, A. 115
MARCHETTI, M. 279
MARCHI, L. 279
MARCHIONI, A. 90
MARCHOK, T. 181, 203
MARCO, S. 98
MARCOS, J.L. 234
MARCU, C. 136
MARCUCCI, S. 89, 93
MARCULLO, S. 172
MARCUS, S. 132
MARECHAL, C.N. 199
MAREEV, E.A. 254
MARENCO, A. 231
MARENCO, F. 261
MARESCA, R. 92
MARESI, L. 129
MARGANSKI, S. 137, 138
MARGHERITI, L. 88, 89
MARGOLINA, T.M. 255, 257
MARGUERIT, C. 253
MARIANELLI, P. 94, 95
MARIETTE, V. 169
MARIGNAC, C. 63
MARINANGELI, L. 237
MARINONI, L.B. 95
MARIOTTI, A. 201, 232, 261
MARIOTTI, J.-M. 248
MARIUCCI, M.T. 64
MARIVOET, J. 141
MARJANOVIC, M. 137
MARKIEWICZ, W.J. 249-251
MARKKANEN, T. 176
MARKOPOULOS, P. 155
MARKOVA, M. 105
MARKUS, T. 170
MARKUSIC, S. 64
MARLEY, M. 249
MARMET, E. 102
MAROTTA, A.M. 71
MAROTTA, G. 159
MAROUF, E.A. 242
MARQUARDT, C. 208, 231
MARQUART G. 77
MARQUES DA SILVA, M.A. 142
MARQUES, F. 109, 110
MARQUET, P. 180, 190
MARQUIS, G. 75, 108, 113, 114
MARRA, E. 64
MARRA, F. 64, 89, 90, 277
MARRALE, D. 199
MARRARA, F. 277
MARRERO, A. 167
MARRERO-DOAZ, A. 163
MARROQUIN, A. 234
MARSALEIX, P. 172
MARSAN, D. 252
MARSAN, P. 89
MARSCH, E. 213-215, 224
MARSDEN, R.G. 213, 214
MARSELLA, E. 74, 86, 114
MARSELLA, M. 277
MARSHAK, A. 185, 254, 257
MARSHALL, D.P. 166
MARSHALL, G.J. 170
MARSHALL, H.G. 211, 213, 240
MARSIAT, I. 189
MARSLAND, S. 169
MARSMAN, A. 234
MARSON, I. 106, 136, 272
MART, Y. 76, 120
MARTANO, P. 176
MARTEL, F. 172, 173
MARTELET, G. 80
MARTEN, A. 238, 239
MARTENS, P.C.H. 225
MARTI, J. 94, 95
MARTI, O. 169, 190
MARTI-BONO, C. 153, 154
MARTIN, D. 205, 206
MARTIN, E. 157, 158
MARTIN, I. 178, 229
MARTIN, J.M. 91
MARTIN, M. 64, 85
MARTIN, P.D. 237
MARTIN, P.H. 176
MARTIN, T. 170
MARTIN, V. 204, 205
MARTINEC, Z. 104
MARTINELLI, G. 112
MARTINERIE, P. 186
MARTINEU, C. 190
MARTINEZ BENJAMIN, J.J. 125, 126
MARTINEZ, A.Z. 167
MARTINEZ, C. 82
MARTINEZ, J. 157
MARTINEZ, M. 193
MARTINEZ, M.D. 91
MARTINEZ-CASASNOVAS, J.A. 279
MARTINEZ-GARCIA, M. 218
MARTINEZ-MENA, M. 152, 159
MARTINI, M. 93
MARTINOD, J. 134
MARTINOVIC, M. 112
MARTINS, C.S. 167
MARTINS, I. 272
MARTINS, J.M. 142
MARTINSON, D. 171
MARTINSSON, O. 105, 106
MARTJANOV, S.A. 212
MARTON, E. 64, 84, 102
MARTON, P. 102
MARTY, CH. 176, 177
MARTYNENKO, S.I. 209, 210
MARTYNOV, V.N. 88
MARUI, A. 149
MARUKAWA, Y. 103
MARVIN, J. 99
MARZAN, I. 120
MARZANO, F.S. 178
MARZOCCHI, W. 275
MAS-PLA, J. 142
MASARIK, J. 225
MASCART, P. 179, 180
MASCHIO, L. 89
MASCLE, J. 76, 119, 120
MASETTI, E. 124
MASINA, S. 124
MASLENITSIN, S.F. 242
MASLOWSKI, W. 125
MASO, M. 168
MASON, D. 118
MASS, E. 264
MASSARI, R. 279
MASSON, A. 211
MASSON, F. 68, 82, 83, 87
MASSON, V. 174, 189
MASSONNET, D. 123

INDEX

MASTELLA, L. 84, 85
MASTROLORENZO, G. 93, 275
MASTRORILLI, M. 144
MATAS, J. 69, 245
MATERAZZI, M. 275
MATERZOK, R. 83
MATHE, P.-E. 96, 97, 101
MATHEWS, P.M. 133
MATHIEU, A. 192
MATHON, V. 188
MATIAS, H. 113
MATINO, M. 176
MATOVA, M. 81, 279
MATROSSOV, S. 244
MATSON, D. 237
MATSON, D.L. 237
MATSUDA, I. 277
MATSUKI, K. 110
MATSUMOTO, R. 118
MATSUMOTO, S. 272, 273
MATSUMOTO, T. 115
MATSUNAGA, T. 246
MATTEI, M. 101
MATTEUCCI, G. 260
MATTHEWS, S. 225
MATTHEY, R. 228
MATTHIESEN, S. 172
MATTIOLI, G.S. 95, 278
MATTSSON, H. 96, 97
MATVEIV, V. 195
MATVIICHUK, YU.N. 211, 218
MATYASOVSZKY, I. 175, 193
MATYSKA, C. 72
MATZ, K.-D. 249, 251
MAUCHER, G. 227
MAUFFRET, A. 79, 86, 87, 120
MAUFRETT, A. 86
MAUGERI, M. 179
MAURER, H. 103
MAURER, M. 156
MAURICE, S. 223, 240, 241, 246
MAURIN, J.-C. 75
MAURITSCH, H.J. 85, 102, 104, 106
MAURITZEN, C. 164, 165
MAURIZI, A. 259
MAURY, A. 246
MAUSER, W. 153
MAVROCORDATES, C. 245
MAWER, C.K. 76
MAY, R.D. 231
MAYAUX, P. 107
MAYER, G. 209
MAYER, M. 141
MAYHEW, M. 236, 240
MAYNARD, K. 192
MAYNARD, N. 217
MAYOR, M. 248
MAZAUD, A. 98
MAZELLE, C. 212, 222, 236, 240
MAZEROLLE, F. 109
MAZUKINA, S.I. 142
MAZZA, S. 89
MAZZANTI, M. 92
MAZZEGA, P. 202
MAZZINO, A. 264
MAZZOLI, S. 81, 89
MBARTZOS, E. 82, 134, 272
MCADOO, D.C. 130
MCALLISTER, E. 113
MCCANN, T. 84
MCCARTNEY, M.S. 161, 164, 165
MCCLIMANS, T.A. 167
MCCLOSKEY, J. 88, 252
MCCLUSKY, S. 81
MCCOMAS, D.J. 213
MCCORD, T.B. 237
MCCULLOCH, M.E. 181
MCDERMID, I.S. 208
MCDERMITT, D.K. 176
MCDERMOTT, C. 139
MCDONNELL, G. 103
MCENTIRE, R.W. 220
MCEWEN, A. 237
MCFADDEN, J 217, 236, 240
MCFADDEN, J. 236, 240
MCFARLANE, S.A. 192
MCFIGGANS, G. 195-197
MCGARRY, J. 130, 135
MCGEE, T. 118
MCGINNIS, S. 255
MCGRANE, K. 115
MCGREGOR, J.L. 176
MCGUIRE, W.J. 278
MCKAY, C.P. 239
MCKENNA, D. 231, 232, 261, 262
MCKENNA, D.S. 227, 230, 261
MCKENZIE, J. 223
MCKENZIE, J.F. 213, 214, 240
MCLAUGHLIN, R.M. 259
MCMAHON, M.L. 159
MCNAUGHTON, K.G. 175
MCRANEY, J. 134
MCSHARRY, P. 256
MCSWEEN, H.Y. 249
MCWILLIAMS, J. 166
MCWILLIAMS, J.C. 266
MCWILLIAMS, M.O. 98
MEBOLD, H. 184
MECHIE, J. 77, 78
MECHOSO, C.R. 183, 232, 261
MEDERNACH, L. 199
MEDINA, A. 94, 140
MEDINA, P. 259
MEDINI, R. 184
MEDMEX GROUP 172
MEDVEDEV, S.B. 264
MEEHL, G.A. 193
MEGALOVASILIS, P. 200
MEGHRAOUI, M. 90, 274
MEGIE, G. 226
MEGRAOUI, M. 89
MEHRA, A. 169
MEHRINGER JR., P.J. 103
MEHRINGER, D. 243
MEHRTENS, H. 227
MEIER, A. 227, 233
MEIER, P. 140
MEIER, R. 247
MEIJER, E.W. 232
MEIJER, P.TH. 64, 70
MEIN, P. 225
MEINCKE, J. 162
MEINCKE, O. 256
MEISSNER, R. 84
MEISTER, C.-V. 211, 212, 214
MEISTER, C.V. 212
MELADZE, H. 264
MELCHIORRE, G. 268
MELDRUM, D. 170
MELE, F. 89
MELE, G. 277
MELENTYEV, V.V. 155
MELFI, S.H. 184
MELIA, J. 159
MELICHAR, P. 102, 103
MELIKECHI, A. 185
MELINOTTE, J.-M. 107
MELIS, N. 91
MELLES, M. 99
MELLOR, D. 268
MELLOUKI, A. 194, 195
MELNIKOVA, I. 229
MELNIKOVA, I.N. 229
MELONEK, M, 203
MELONI, D. 228
MELSOM, A. 167
MELTCHOUK, B. 176, 271
MELZER, J. 106
MEMERY, L. 163, 166, 260
MEMMESHEIMER, M. 178, 226, 227, 231
MENA, U. 276
MENAND, T. 95
MENARD, Y. 200, 202
MENDES VICTOR, L. 113
MENDES, V.B. 123, 129, 135
MENDES-VICTOR, L.A. 264, 265, 272
MENDICINO, G. 270
MENDIONDO, E.M. 139
MENDONCA LEITE, S. 177, 191
MENDOZA, V.M. 203
MENDUNI, G. 270, 271
MENEGUZZO, F. 144, 145, 270
MENENDEZ, B. 109
MENENDEZ, M. 160
MENEROUD, J.-P. 277
MENEVEAU, C. 253
MENG, Z. 103
MENGELKAMP, H.-T. 145, 146
MENGER, S. 200
MENK, F.W. 217
MENKES, C. 166, 191, 260
MENNECHET, C. 79
MENNELLA, V. 242, 244, 247
MENSHIKOV, Y.P. 83
MENSINK, C. 178, 280
MENVIELLE, M. 68, 107, 113
MENZIANI, M. 146
MERCET, C. 110
MERCIER, F. 128, 129
MERCIER, H. 124, 161, 162, 166
MERCIER, P. 261
MERCURIEV, S. 119
MERDACI, O. 99
MEREDITH, P. 88
MEREDITH, P.G. 112
MERKA, J. 221
MERLINE, W.J. 237
MERLIVAT, L. 163, 170
MERMOUD, A. 142
MEROT, P. 157
MERRIAM, D.F. 73, 110
MERTIKAS, S. 82, 129, 134, 135, 272
MERTZ, F. 130
MERVART, L. 137
MERZ, B. 148
MERZ, CH. 151, 156
MERZLYAKOV, E.G. 211
MESSIAS, M. 161
MESSINA, P. 89
METHVEN, J. 232, 261
METRICH, N. 94
METRIS, G. 124
METZ, W. 165
METZGER, E.J. 202
METZIG, R. 126, 128
MEULENKAMP, J.E. 63
MEUNIER, A. 109
MEVEL, C. 117
MEYER, A. 279
MEYER, H. 115
MEYER, K. 108
MEYER, R. 170, 171
MEYER, U. 130, 200, 201
MEYER-VERNET, N. 213, 222
MEYERER, TH. 238
MEYUS, Y. 141
MEZIANE, K. 212
MGUIRE, P.K.H. 77
MI, Y. 118
MICHAELIS, H. 241, 246
MICHAELIS, W. 149
MICHAELS, A.F. 163
MICHALLET, H. 257
MICHALSKI, K. 84
MICHEL, C. 160
MICHEL, G. 81
MICHEL, P. 246
MICHEL, R. 123
MICHELANGELI, P.-A. 191
MICHELINI, A. 65, 89, 90
MICHETTI, A.M. 89, 274
MIDDLETON, M.F. 74, 108
MIENERT, J. 118
MIFTAHOVA, E.G. 222
MIGON, C. 198, 199
MIHAILOVIC, J.S. 106
MIHAJLOVIC, LJ. 189
MIHAJLOVIC, S. 189
MIHAJLOVIC, S.J. 218
MIHALOPOULOS, N. 187, 204-206, 280
MIHELCIC, D.J. 196, 197
MIHELE, C.M. 194, 196, 197
MIKHAILENKO, B.G. 88
MIKHAILOV, A. 218, 219
MIKHAILOV, A.V. 218, 219
MIKHAILOV, YU.M. 242, 267, 273
MIKHAILOVA, E.N. 167
MIKHAILOVA, G.A. 273

MIKHAILOVA, N.P. 83
MIKKELSEN, T. 177, 178
MIKOLAJEWICZ, U. 161
MILAN, S.E. 209, 217
MILANA, G. 89, 90, 93
MILANOVSKY, S. 78, 92
MILDE-PIORKO, M. 83
MILES, P.R. 115
MILESI, J.P. 79, 80
MILETENKO, N.V. 73
MILFERSTÄDT, D. 184
MILIA, A. 74
MILIVOJEVIC, M. 112
MILLAN, M. 178, 229
MILLAN-GARRIDO, H. 102
MILLER, A. 181
MILLER, A.J. 190
MILLER, H. 130
MILLER, J.A. 108
MILLER, K.C. 83, 84
MILLER, M. 203
MILLER, S.A. 74
MILLET, A. 158
MILLING, D. 220
MILLOT, C. 165-167
MILLS, G. 232, 262
MILNE, G. 71
MILNE, G.A. 71, 72
MILODOWSKI, A.E. 139
MILOVANOV, A.V. 215
MILOVSKY, R. 84
MILTON, S.F. 202
MIN-WEI, Q. 269
MINCIARDI, R. 154
MINGUZZI, E. 268
MINIKIN, A. 194
MINSHULL, T.A. 116-118
MINSTER, J.B. 130
MINSTER, J.F. 128
MIQUEL, J.C. 163
MIRABEL, PH. 195
MIRANDA, J.M. 267, 274
MIRANDA, J.V. 73
MIRANDA, P.M.A. 176, 177, 179
MIREAULT, Y. 124
MIRKOTAN, S.F. 210
MIRO, J.V. 178
MIRONOV, D.V. 174
MIRONOVA, N.A. 77, 78
MIRZA, A.M. 223
MISEROCCHI, S. 199
MISHIN, E. 216
MISNHULL, T.A. 116
MITA, D.G. 93
MITCHELL, C.N. 210
MITCHELL, D. 236, 240
MITCHELL, D.L. 185
MITCHELL, N.J. 207, 209
MITEV, V. 228
MITHCELL, D.L. 240
MITIN, I.V. 227
MITINA, N.N. 144
MITROFANOV, G. 86, 88, 110
MITROVICA, J.X. 71-73, 127, 134
MITSKEVITCH, A.V. 244
MITYAGINA, M.I. 253
MIX, W. 173
MIYAZAKI, S.-I. 272
MIYAZAKI, T. 113
MIZARA, A. 159
MIZUTANI, H. 245
MJELDE, R. 116
MJOLHUS, E. 211
MLADENOVIC, M. 105, 106
MLCH, P. 208, 218
MLKKI, A. 220
MO, K.C. 165
MOAKHAR, M.O. 68
MOAT, B.I. 182
MOBBS, S.D. 174
MÖBIUS, E. 214, 223
MOCHIDA, M. 195
MOCHIZUKI, K. 82
MOCQUET, A. 68, 80, 236
MODESTI, F. 178
MODIGLIANI, A. 225
MODZELEWSKI, H. 174
MOEHRLENS, C. 146
MOGENSEN, C.T. 250, 251
MOGILEVSKY, M. 221
MOGILEVSKY, M.M. 221
MOHLER, C.L. 153
MOHR, J.J. 127
MOHRATH, D. 148
MOINE, M.-P. 180
MOISAN, E. 209
MOISEEV, S.S. 178, 179, 253, 264, 265
MOISEYENKOVA, S.V. 66, 67
MOITINHO, I. 276
MOJZES, M. 136
MOLDER, M. 176
MÖLDERS, N. 155, 175, 185, 203
MOLDOVEANU, C.L. 277
MOLEMAKER, M.J. 165
MOLENAT, J. 151, 153, 157
MOLENDIJK, R.E. 122
MOLIN, D. 274
MOLINA-CUBEROS, G. 240
MOLINES, J.-M. 202
MÖLLER JR, O. 162
MÖLLER, D. 229
MOLLER, I. 66
MÖLLER, P. 112
MÖLLER, P.J. 120
MOLTENI, F. 193
MOLUS, I. 178
MONA LISA WORKING GROUP 83
MONACHESI, G. 89, 90, 274
MONCRIEFF, J.B. 176
MONCUQUET, M. 213, 222, 242
MONGELLI, F. 73
MONIE, P. 81, 198
MONKS, P.S. 177, 196, 197
MONNIER, B. 234, 235
MONTAGNIER, J.P. 115
MONTALDO, N. 255
MONTANARI, A. 145, 146
MONTANI, A. 181
MONTEIRO SANTOS, F.A. 113
MONTELLI, R. 67
MONTEMAGNO, C.D. 108, 139
MONTENEGRO, H. 148, 156
MONTES, J.-M. 270
MONTGOMERY, M. 266
MONTMERLE, T. 180
MONTONE, P. 64, 90
MONTOTO, M. 109
MOOG, H. 111
MOONEY, W.D. 70, 77, 83, 86
MOORE, G.W.K. 181
MOORE, H. 251
MOORE, H.J. 251
MOORE, J. 237
MOORE, J.A. 179
MOORE, J.M. 237
MOORE, R.D. 152, 153
MOORE, W. 237
MOORTGAT, G.K. 188, 193-195
MORAKINYO, J.A. 140
MORAKINYOL, D. 139
MORALES MAQUEDA, M.A. 169
MORAN, P.J. 213
MORAT, P. 158
MORATA, D. 68
MORBIDELLI, A. 246
MORCRETTE, J.-J. 228
MORCRETTE, J.J. 254
MORDELET, P. 157
MORDVINOVA, V.V. 67, 87
MOREAU, D. 238
MOREAU, E. 109
MOREAU, F. 106
MOREAU, P. 243
MOREAU, PH. 243
MOREAU, R. 259
MOREDA, F. 153
MOREIN, G. 252, 255
MOREL, C. 179
MOREL, Y. 166
MOREL, Y.G. 168, 266
MORELL, I. 142, 157
MORELLI, A. 65, 69, 89
MORELLI, S. 269
MORENO, A. 153, 154, 269
MORENO, E. 100
MORENO, J. 280
MORENO, J.M. 159
MORENO, P. 260
MORENO, R. 238, 243
MORGAN, H. 250
MORGAN, P. 123
MORGAN, W.J. 78
MORGENSTERN, K. 146
MORHANGE, C. 122
MORI, M. 103
MORISON, J. 169
MORIYA, T. 89
MORLIERE, A. 166
MÖRNER, N.-A. 65, 66, 71, 72, 96, 97, 101, 132, 190, 225, 268, 271
MORO, M. 89
MOROVIC, M. 169, 254
MOROZ, I.M. 238, 256
MOROZ, L. 244
MOROZOV, E.G. 254
MOROZOV, O.L. 80
MOROZOV, V.N. 71
MOROZOVA, E. 221
MOROZOVSKY, E. 179
MORRICE, J.A. 148
MORRIL, J.S. 225
MORRIS, G.A. 227
MORRIS, M.Y. 162
MORRIS, P. 247, 248
MORRIS, P.W. 248
MORRIS, R.J. 217
MORROW, R. 125, 126
MORSELLI, M.G. 174
MORSS, R. 181
MORTENSEN, M. 129
MORTIER, L. 167, 172, 173, 198
MOSAEDI, A. 269
MOSANGINI, C. 238, 251
MOSAR, J. 63, 84
MOSBAEK, H. 149
MOSCONI, A. 74
MOSE, R. 142, 157
MOSER, F. 63
MOSERT DE GONZALEZ, M. 218
MOSETTI, R. 260
MOSHFEGHLAN, M. 118
MOSKALEVA, L. 245
MOSQUERA, J.C. 268
MOSS, J.L. 278
MOSSINGER, J. 194-196
MOSTERT, E. 153
MOSZHUKHINA, A. 221
MOTOVILOV, YU.G. 144, 146
MOTSCHMANN, U. 223
MOTTOLA, S. 241, 246
MOTUZA, G. 83, 84
MOTZ, G.B. 178
MOUIKIS, C.G. 222
MOUILLOT, F. 160
MOUND, J.E. 72
MOUNT, J. 101
MOUNTRAKIS, D. 81
MOUNTRAKIS, D.M. 80
MOURA, D. 241
MOURE, J.C. 164, 165
MOURTADA-BONNEFOI, C.C. 95
MOUSSA, R. 153, 253
MOUSSIOPOULOS, N. 185
MOZER, F.S. 211
MOZER, F.Z. 216
MOZHI, T. 263
MRLINA, J. 103, 105, 106
MROCZEK, S. 106
MT. BELBOURNE GEOPHYSICAL GROUP 278
MU MU 263
MUALEM, Y., ASSOULINE, S. 160
MUCCI, A. 199
MUCCIARELLI, M. 274
MUCHNAYA, V.I. 271
MUELLER, G. 150
MUELLER, H.J. 111
MUELLER, J.F. 233

MUELLER, L. 141
MUELLERSCHOEN, R. 124
MUENCH, R. 170
MUENCH, R.D. 170, 171
MUGNAI, A. 178, 179
MUGNIER, J.L. 81
MUGNUOLO, R. 241
MUHLEMAN, D.O. 238, 249
MUHLEMANN, D.O. 238
MÜHLMANN, W. 129
MUHTAROV, P. 219
MUINONEN, K. 236, 242, 246
MUKAI, A. 272, 273
MUKAI, T. 211, 212, 217, 220
MUKASHEV, K. 71
MUKHAMADIEV, R. 100
MULARCHIK, T. 220, 222
MULARGIA, F. 94, 278
MULCAHY, C. 159
MULIARCHIK, T.M. 221
MULLEN, S.L. 256
MÜLLER, A. 114
MÜLLER, A.B. 275, 276
MÜLLER, B. 76, 85
MÜLLER, CH. 267
MÜLLER, F. 178
MULLER, H.G. 207
MÜLLER, I. 139, 141, 142
MÜLLER, J. 66, 127, 151, 185, 228, 233
MULLER, J.-D. 66
MÜLLER, J.-F. 228, 233
MULLER, J.F. 225
MÜLLER, K.M. 208
MULLER, K.P. 227
MÜLLER, M. 92
MULLER, M.R. 117
MÜLLER, R. 227
MULLER, S. 66
MÜLLER, T.G. 247
MÜLLER, T.J. 163
MÜLLER-MELLIN, R. 223
MÜLLER-WODARG, I.C.F. 211
MULLIGAN, M. 160
MULS, A. 134
MULUGETA, G. 77, 108
MUMMA, M.J. 238
MÜNCH, U. 117
MUNHA, J.M. 267
MUNNS, J.W. 76
MUNOZ MARTIN, A. 64
MUNTZER, P. 142
MÜNZENBERG-ST. DENIS, A. 177, 229
MURAKAMI, F. 115
MURAKAMI, H. 245
MURANTE, G. 266
MURCHIE, S.M. 249
MUREAU, R. 203
MURPHY, J. 249
MURPHY, J.R. 249
MURPHY, T. 105, 106
MURRAY, M.J. 202
MURRAY, S. 161
MURRAY, S.P. 161, 167
MURRAY, T.A. 113
MUSACCHIO, G. 77, 83, 86
MUSAT, I. 183
MUSHIN, I.A. 73
MUSLIMOV, R.C. 78
MUSSON, R. 271
MUSSON, R.M.W. 274
MUSTSEVOJ, V.V. 265
MUSUMECI, C. 82
MUSY, A. 152
MUTEN, T. 141
MUTTONI, G. 63, 101
MUZY, J.-F. 254
MYERS, P.G. 165, 172
MYRABO, S. 140
NABELEK, P. 94
NACHAPKIN, N.I. 106
NACHTNEBEL, H.P. 143
NADEAU, M. 235
NADEN, P. 269
NADOR, A. 73
NAE, F. 269
NAEF, D. 248
NAEF, F. 270
NAEIJE, M. 125, 126
NAGAO, K. 93
NAGHETTINI, M.C. 269
NAGY, A.F. 240
NAGY, G.J. 162
NAGYMAROSY, A. 90
NAIK, N. 164, 166
NAIMARK, B. 76
NAIZET, F. 103
NAJJAR, G. 158
NAKAI, M. 103
NAKAMURA. S 201
NAKAO, S. 272, 273
NAKAZAWA, K. 243
NALBANT, S. 275
NAMGALADZE, A.A. 218
NAMIKI, N. 245
NANDAKA, I.G.M.A. 278
NANNI, T. 225
NAPOLI, R. 278
NAPOLITANO, E. 260
NARDI, A. 134, 136
NARDI, G. 102
NARDIN, M. 86, 115
NASEDKIN, V. 83, 84
NASONOV, A.E. 175
NASRIFAR, KH. 118
NASS, H.U. 213
NASTROM, G.D. 207
NASTULA, J. 132
NATALE, G. 92-94, 277
NATALI, S. 179
NATIV, R. 147
NATIVI, S. 279
NATVIK, L.-J. 202
NAUDIN, J.J. 167
NAUJOKAT, B. 207, 208
NAVAREZ-MARRON, J. 83
NAVARRA, A. 124, 183, 191
NAVARRO, M. 91, 276, 277
NAVAS, A. 159
NAVASCUES, B. 202, 203
NAVEIRA GARABATO, A.C. 171
NAWROCKI, J. 83, 99
NAYLOR, D.A. 246-248
NAZARENKO, S. 266
NAZAREVYCH, A.V. 85, 257, 272, 273
NAZAREVYCH, L.YE. 85, 92, 272, 273
NEBEN, S. 115
NECHAEV, D. 201
NECHAEV, O.YU. 272
NEDELEC, P. 231
NEDUNURI, K.V. 150
NEEB, P. 187, 188
NEFEDKINA, T. 88, 110
NEGA, M. 81
NEGENDANK, J.W.F. 97, 98
NEGMATULLAEV, S.H. 210
NEGREDO, A. 63, 75
NEGREDO, A.M. 64, 71
NEGRI, S. 103
NEGRO, G. 103
NEGUSINI, M. 129
NEISHTADT, N.M. 112
NEISSER, J. 175
NELANDER, B. 194, 195
NELSON, J.M. 143
NELSON, R. 246
NEMCOK, M. 85
NEMECEK, Z. 217, 220-222
NEMETH, B. 87
NEPRIMEROV, N.N. 152
NERCESSIAN, A. 86
NERCESSION, A. 86
NEREM, R.S. 104, 128
NERI, A. 93, 278
NERI, G. 92
NERRY, F. 107
NESEMANN, M. 130, 200, 201
NESS, N.F. 236, 240
NESTER, K. 178
NESTI, G. 123
NESVORNY, D. 246
NEU, U. 228
NEUBAUER, F. 74, 84, 85, 214, 240
NEUBAUER, F.M. 92
NEUBAUER, W. 102, 103
NEUBER, R. 204, 205
NEUDEGG, D.A. 217
NEUER, S. 163
NEUKUM, G. 135, 136, 237, 238, 241, 245, 246, 251
NEUMAIER, P. 123, 136
NEUMAYER, K.H. 130
NEUMEYER, J. 122
NEVEN, E.C. 266
NEWBY, P. 135
NEWELL, A.C. 263
NEWMAN, C.E. 238
NEZLIN, M. 265
NEZLING, M.V. 265
NG, T.C. 246
NGUYEN, K.D. 167
NGWENYA, B.T. 113
NICASTRO, S 201, 265
NICASTRO, S. 265
NICE UNIVERSITY RESEARCH GROUP 89
NICOLAS, E. 198, 199
NICOLAS, M. 81
NICOLAS, P. 169
NICOLESCU, A. 106
NICOLETTI, P.G. 276
NICOLLEAU, F. 259
NICOLLIN, F. 70
NIELL, A.E. 129, 130
NIELSEN, A.H. 265
NIELSEN, C.S. 127
NIELSEN, E. 209, 242
NIELSEN, L. 66
NIELSEN, S.B. 70
NIEMANN, J.D. 252
NIEMI, A. 141
NIESSNER, R. 142, 147
NIETO BORGE, J.C. 200, 201
NIHOUL, J. 260
NIKIFOROV, S. 170
NIKITIN, M.J. 276
NIKOLAEVA, N. 217, 220, 221
NIKOLAEVA, N.S. 221
NIKOLAOU, N. 276
NIKOLOVA, S.B. 272
NIKUTOWSKI, B. 221
NILSEN, J.E.O. 163
NILSEN, K. 76
NILSSON, H. 231
NILSSON, S. 203
NIMS TEAM 237
NIRUPAMA 146
NISHIZAWA, A. 115
NISHIZAWA, O. 85
NISTA, A. 244
NITTA, N. 225
NITTIS, K. 166
NIVIERE, B. 75
NJOS, A. 154
NOACK, T. 277
NOCI, G. 213, 225
NOEL, M. 103
NOEL, O. 117
NOEL, S. 225
NOENS, J.C. 225
NOETINGER, B. 140
NOF, D. 162
NOGI, Y. 82
NÖHREN, I. 200
NOILHAN, J. 157, 176
NOLET, G. 63, 67, 70, 78
NOLL, K. 247
NOOMEN, R. 123, 133, 134
NORDSTROM, C. 177
NOREGOL, M. 164, 165
NORMARK, E. 90, 91
NORRO, A. 172
NORSTROEM, C. 174
NORSTROM, C. 176
NORTON, W.A. 190
NOSOV, M.A. 265, 268
NOSTRO, C. 75, 88, 90, 275
NOTARIO, A. 194, 195
NOTHNAGEL, A. 134

NOTHOLT, J. 204, 205
NOTO, J. 210, 218
NOVIKOV, A. 135
NOVOTNA, D. 257
NOWACZYK, N.R. 97-99
NOZAWA, S. 209, 210
NOZDRACHEV, M. 217, 220, 221
NOZDRACHEV, M.M. 220
NOZDRACHEV, M.N. 221, 222
NUCCIO, P.M. 95
NULLANS, S. 79
NUNES, T. 187
NUNN, D. 212, 216
NURGALIEV, D.K. 97, 100
NURMI, P. 203
NURSEY, K. 123, 134
NUTH, J. 243
NÜTZMANN, G. 141
NUZZO, L. 103
NYCANDER, J. 168
NYEKI, S. 280
NYGAARD, E. 171
NYSET, M. 66
NYST, M. 70
NZE ABEIGNE, C.-R. 65
O'CONNELL, P.E. 144, 146, 154, 268
O'CONNELL, R.J. 69, 72, 263
O'CONNOR, R.M. 109
O'DOHERTY, K. 88
O'DOWD, C.D. 195
O'DWYER, J. 166
O'KANE, J.P. 144, 148
O'NEAL, R. 225
O'NEILL, A. 228, 231
O'REILLY, B.M. 105, 106, 115
O'RIORDAN, C. 198
OANCEA, V. 88, 269
OBERC, P. 241
OBERHUBER, J.M. 126, 167
OBERLIN, G. 157, 269, 270
OBERST, J. 237, 245, 246, 249, 251
OBLED, CH. 157, 158, 268
OBOJSKA, L. 215
OBOLENTSEVA, I.R. 88
OBRADOVIC, M. 106, 218
OBRIZZO, F. 92, 277
OCAMPO, A. 237
OCAMPO-TORRES, F.J. 200
OCHES, E.A. 99
ODEGAARD, J. 90
ODIER, P. 254
ODINTSOV, S.D. 106
ODP LEG 176 SCIENTIFIC PARTY 117
ODP LEGS 149/173, DISCOVERY CRUISE 215 SCIENTIFIC PARTIES 116
OELHAF, H. 227
OETTINGER, G. 80, 113
OETZEL, K. 266
OFFERMANN, D. 184, 208
OFFILER, D. 134
OFTERDINGER, U. 139
OGATA, Y. 271
OGAWA, Y. 209, 210
OGE, J. 177
OGILVIE, S. 110
OGREN, J. 229
OGUNJEMIYO, S.O. 175
OGUZ, T. 260
OHMURA, A. 176, 177, 185, 186
OHNAKA, M. 74
OHTANI, T. 108, 113
OIKARINEN, A. 216
OJEDA, G. 279
OKI, T. 155
OKUBO, P. 92
OLAETA, I. 230
OLALLA, R. 179
OLBERS, D. 266
OLDHAM, P.G. 246-248
OLESEN, A. 130
OLESEN, A.V. 130, 200, 201
OLESEN, O. 77
OLEYNIKOV, A.N. 209, 210
OLIOSO, A. 146, 157
OLIVAR, M.P. 168
OLIVEIRA, C.S. 274, 276, 277
OLIVER, R. 213
OLIVERI, S. 279
OLIVET, J.L. 116
OLIVIERI, M. 69, 89
OLLIKAINEN, M. 134
OLLITRAULT, M. 161
OLMO, F.J. 175
OLSZEWSKI, R. 136, 137
OLTCHEV, A. 146
OMURA, M. 272, 273
ONCKEN, O. 82, 83
ONDRAK, R. 83, 84
ONKEN, R. 172
ONOF, C. 252, 253, 268
ONORATO, M. 263, 264, 267
OOE, M. 245
OPGENOORTH, H.J. 217
OPRSAL, I. 91
OPSTEEGH, J.D. 165, 203
ORAL, E.Z. 119
ORANGE, D. 253
ORBADOVIC, M. 189
ORBAY, N. 102
ORBONS, P.J. 102, 103
ORCUTT, J.A. 117
ORESHIN, S.I. 87
ORI, G.G. 237
ORLANDI, P. 266
ORLANDINI, S. 146, 154
ORLANDO, S. 213, 214, 224
ORMOND, A. 158
OROFINO, V. 237
OROSEI, R. 244
OROZOVA, I. 64
ORPHAL, J. 194, 195
ORR, M.H. 263
ORSI, G. 95
ORSOLINI, Y.J. 226, 227
ORTIGOSA, L. 160, 279
ORTIZ BEVIA, M.J. 162, 166, 191
ORTIZ, L. 112
ORTIZBEVIA, M.J. 255
ORTOLEVA, P. 158
ORTON, G. 239, 247
ORTON, G.S. 246-248
ORTUANI, B. 140, 141
ORWELL WORKING GROUP 115, 117
OSBALDESTIN, A.H. 259
OSBORNE, A.R. 263, 264, 267
OSBORNE, R. 73
OSBOURN, R.J. 113
OSCHLIES, A. 181, 202, 260
OSHRI, O. 264
OSIPENKO, N. 268
OSORIO, J. 81, 127
OSORIO, R. 103
OSTAPENKO, A.A. 212
OSTERHUS, S. 163, 165
OSTROVSKII, A.G. 167
OSTROVSKY, L.A. 263, 264
OSTROVSKYJ, A. 137, 138
OSTROWSKI, M.W. 154
OSWALD, B. 148
OSZCZAK, S. 136
OTAKE, H. 246
OTSMANN, M. 168
OTSUKA, S. 272, 273
OTT, C. 158
OTTENBREIT, M. 149
OTTERMAN, J. 189
OTTLE, C. 107, 157
OUAHSINE, A. 167, 260
OUBERDOUS, M. 125
OUDOT, C. 161
OUFI, O. 119
OUILLON, G. 81
OUILLON, S. 167
OUM, K.W. 195
OUTKIN, V. 273
OUZOUNIS, A. 81
OVCHINNIKOV, L.M. 167
OVCHINNIKOV, M.N. 141, 152
OWEN, C. 220
OWEN, T. 239, 243, 247
OWENS, W.B. 162
OXENTIOUK, A. 133
OYOLA, P. 230
OYONO, E. 139
ÖZCEP, F. 102
ÖZDEMIR, Ö. 96-99
OZEL, E. 119
OZEL, N. 89
OZOLIN, Y.E. 186
PACCAGNELLA, T. 268
PACE, D. 235
PACHECO, A.F. 252
PACHECO, M. 163, 167
PACHUTA, A. 137, 138
PACHUTA, K. 148
PACIONE, R. 72, 134, 136
PACKWOOD, C.R.X. 150
PADILLA, F. 142, 143
PADULA, M. 279
PAERLI, R. 214
PAETH, H. 164
PAGARETE, J. 123
PAGLIACCI, S. 279
PAGLIARA, S. 144, 145, 270
PAGLIARIN, A. 225
PAHLOW, M. 146
PAILLOU, PH. 238
PAKA, V.T. 168
PAKLAR, G.B. 169
PAKZAD, M. 91
PALACIOS, M. 124
PALANQUES, A. 167, 168
PALAU, J.L. 178
PALDOR, N. 260
PALK, M. 74
PALLADINO, D.M. 93
PALLIER, L. 241
PALMER, T. 203
PALMER, T.N. 203, 255
PALMIERI, G. 74
PALMIERI, S. 189, 228
PALMISANO, E. 279
PALMROTH, S. 176
PALO, S. 211
PALO, S.E. 211
PALOMBA, E. 244
PALOMERA, I. 168
PALOSCIA, S. 155, 280
PALUMBO, F. 73
PALUMBO, M.E. 243
PALUMBO, P. 241, 242, 247
PALUS, M. 257
PALVA, L. 176
PAMBIANCHI, G. 275
PAMIC, J. 102
PAMMENT, J.A. 232
PAMPALONI, P. 155, 280
PAN, C.J. 210
PANAGIOTARAS, D. 200
PANAGOULIA, D. 145
PANAIOTU, C. 84
PANAIOTU, C.E. 84
PANAPOULOU, G. 278
PANARINA, G.I. 78
PANCHELUGA, V.A. 210
PANCHEVA, D. 208
PANDEY, G. 252
PANFYOROV, O. 176
PANIN, G.N. 174, 175
PANIZZA, M. 276, 279
PANKOV, V.L. 68, 69
PANKOV, V.M. 264
PANKRATZ, L.W. 107
PANNE, U. 147
PANTONE, M. 268
PANY, T. 137
PANZA, G. 77, 106
PANZA, G.F. 64, 65, 76, 89, 91, 256, 271, 277
PAONITA, A. 95
PAPADIMITRIOU, E.E. 271
PAPADOPOULOS, G. 267, 272, 275, 278
PAPADOPOULOS, G.A. 272
PAPAGEORGIOU, E. 169
PAPAGIANNAKOPOULOS, P. 194-196
PAPAIOANNOU, G. 155, 176
PAPALE, P. 93
PAPARO, G. 272

INDEX

PAPAYANNIS, A. 226, 227, 261, 280
PAPAZACHOS, B.C. 271
PAPAZACHOS, C. 78, 79, 277
PAPE, H. 110
PAPKE, F. 179
PAPOULIA, J. 65
PAPP, G. 105
PAPPALARDO, G. 279
PAPPALARDO, R. 237
PAPPALARDO, R.T. 237, 238
PAPPARDO, R. 237
PAPRITZ, A. 147, 148
PARADIS, S.J. 279
PARADISI, P. 260
PAREDES, J. 156
PARES, J.M. 101, 102
PAREY, S. 190
PARI, G. 92, 104
PARION, P. 220
PARISE, M. 275, 276, 279
PARISOT, F. 200
PARK, J.-O. 71
PARK, J.H. 208
PARK, S.K. 256
PARKER, B.B. 200
PARKER, D. 141, 180, 188
PARKER, D.E. 190
PARKER, E. 99
PARKER, S.C. 108
PARKER, T.J. 251
PARKINSON, C.L. 170
PARKS, G. 212, 217, 220
PARKS, G.K. 212, 220
PARKS, G.K. 220
PARMIGGIANI, F.F. 171
PARODI, P. 199
PAROL, F. 184, 192
PAROLAI, S. 82
PARONIS, D. 280
PARPHENUK, O.I. 80
PARRA, M. 198
PARRAVICINI, G. 140, 141
PARROT, M. 212, 221, 273
PARSEGOV, D.V. 108
PARTZSCH, J.H. 81
PASCAL, B. 259
PASCAL, C. 74
PASCAL, G. 86
PASCUAL, A. 171
PASQUALE, V. 68
PASQUERO, C. 204
PASSCHIER, C.W. 80
PASSIER, H.F. 99
PASSOT, T. 215
PATANE, D. 86, 89
PATELLA, D. 114, 272
PATES, J.M. 199
PATHFINDER SCIENCE TEAM 250
PATRIAT, P. 119
PATRIAT, PH. 119
PATRIER, P. 109
PATTON, R. 234, 235
PÄTZOLD, M. 224, 242
PAUBERT, G. 243, 247
PAUCHET, H. 64
PAUL, A. 79
PAULA, A. 274
PAULARENA, K.I. 221
PAULL, C.K. 118
PAULSSEN, H. 69, 83
PAULUHN, A. 125, 126
PAUVELS, H. 140
PAVAN, V. 183
PAVLENICHVILI, E. 97
PAVLENKOVA, N. 87
PAVLIS, E.C. 82, 124, 128, 129, 134, 135, 272
PAVLIS, N.K. 124, 130, 131
PAVLOV, A.F. 210
PAVLOV, A.V. 209-211, 218
PAVLOV, S. 174
PAVLOV, V. 263, 266
PAVLOV, V.I. 266
PAWLOWSKA, H. 192
PAWSON, S. 193, 207, 208, 230, 232, 262
PAYAN, S. 227
PAYATAKES, A.C. 150
PAYO, G. 64
PE-PIPER, G. 92
PEACH, C.J. 108
PEACOCK, D. 113
PEACOCK, D.C.P. 113
PEACOCK, N.R. 125
PECE, R. 93
PECHER, I. 118
PECHER, I.A. 117, 118
PECHER, L.A. 118
PECHNIG, R. 78
PECK, J. 114
PECKHAM, S.D. 154
PECKNOLD, S. 252
PEDDER, M.A. 166
PEDERSEN, A. 211, 222
PEDERSEN, C.T. 250, 251
PEDERSEN, H. 79, 80
PEDERSEN, T.S. 148
PEERI, S. 134
PEETERS, P. 228
PEGRAM, G. 145
PEIFFER, S. 151
PEINE, A. 151
PEIPE, J. 251
PEJOUX, R. 254
PEKELA, W.D. 234
PELEG, M. 195
PELEGRO, J.L. 163, 167
PELICAN, P. 148
PELINOVSKY, E. 167, 168, 263, 267, 268
PELLERIN, S. 232, 261
PELLETIER, A. 115
PELLETIER, B. 69
PELLETIER, J.D. 74, 75, 97, 104, 143, 190, 193, 252, 253, 255
PELLINEN, R.J. 220
PELLIS, G. 65, 86
PELON, J. 174, 184
PELOSINI, R. 203
PELTIER, W.R. 92, 104, 122, 180, 189, 258, 263, 265, 266
PELUSO, F. 93, 94
PEN, G. 128
PENAZZI, G. 280
PENGE, J. 76
PENKETT, S. 232, 262
PENKETT, S.A. 177, 194, 195, 197
PENNA, N.T. 123, 134
PENNISI, M. 95
PEPE, M. 279
PEPLER, S.J. 261
PERBOS, J. 200
PERCHUC, E. 83, 84, 87
PEREGO, S. 228
PEREIRA DOS SANTOS, L. 157
PEREIRA, D. 94
PEREIRA, M.G. 191
PEREJASLOVA, N. 207
PERELADOV, M. 75
PEREPELOV, A.B. 92
PERES, G. 213, 214, 224
PERESAN, A. 256
PEREZ GARCIA, V. 103
PEREZ GOMEZ, B. 200
PEREZ, A. 164, 165
PEREZ, B. 159
PEREZ, L. 110
PEREZ, M.A. 187, 188
PEREZ, O.J. 271
PEREZ-ESTAUN, A. 83, 86, 87
PEREZ-GONZALEZ, A. 160
PEREZ-GUSSINYE, M. 116
PEREZ-PASTOR, R. 187, 188
PEREZ-PERAZA, J. 218
PERFETTINI, H. 89
PERGALANI, F. 275
PERIN, B. 134
PERINI, J.P. 104
PERIS, G. 178, 199
PERISSORATIS, C. 267
PERKINS, R.J. 262
PERKINS, S.P. 152
PERLT, J. 126, 128
PERLWITZ, J. 164, 165
PERNER, D. 193
PEROSANZ, F. 124
PEROV, S.P. 207
PEROV, V. 202
PERRAUT, S. 220-222, 241, 242
PERRET, D. 275, 279
PERRIER, C. 248
PERRIER, E. 109, 139
PERRIER, F. 112, 113
PERRIN, M. 98
PERROT, J. 88
PERROUD, H. 90
PERRY, C.H. 216
PERSSON, K. 231
PERSSON, P.O.G. 179
PERSSON, T. 186, 280
PERUMAL, M. 146
PERUZZA, L. 65
PESCHKE, S.B. 247
PESCI, A. 90
PESEC, P. 136
PESMAJOGLOU, S. 151
PETELET, E. 157
PETER, R. 226, 227
PETER, T. 227
PETER, Y. 81
PETERS, C. 96, 103
PETERS, D. 164, 226
PETERSEN, C.C. 213
PETERSEN, O. 258, 259
PETERSON, W.K. 217
PETFORD, N. 76, 108
PETIT, C. 77, 78
PETIT, J.-P. 74, 113
PETIT, J.R. 189, 198
PETKOVSKI, R. 279
PETOUKHOV, V. 256
PETRACHENKO, W.T. 135
PETRAKIS, M. 280
PETRAZZUOLI, S.M. 94, 95
PETRENKO, B.Z. 253
PETRILLO, Z. 114
PETRINI, K. 80
PETRONIO, L. 86
PETRONOTIS, K. 72
PETROPOULOS, B. 191
PETROSINO, S 88, 92, 278
PETROSINO, S. 88, 278
PETROSYAN, A. 173, 174, 238
PETROV, L. 135
PETROV, S. 132
PETROV, S.D. 132
PETROV, V. 221
PETROV, V.M. 211, 218
PETROVA, G.N. 65
PETROVA, N. 77, 78, 245
PETROVSKY, E. 96, 97, 101
PETRUKOVICH, A. 217, 221
PETRUKOVICH, A.A. 211, 221
PETRUKOVITCH, A. 221
PETRY, H. 233
PETSCHEL-HELD, G. 257
PETTENGILL, G.H. 249
PETTI, M. 263, 267
PETZOLD, A. 233, 280
PEUCH, V.-H. 208
PEUGEOT, C. 153, 157
PEVZNER, L. 78, 79
PEYMIRAT, C. 211
PEYRAT, S. 88
PEYRON, O. 189, 190
PEYVE, A.A. 117
PEZARD, P.A. 78, 110, 112, 117
PEZZUTO, S. 248
PFAFF, R. 217
PFAFF, R.F. 67
PFEIFFER, A. 143
PFEIFFER, P. 197
PFEILSTICKER, K. 184, 185, 195, 227, 230
PFIFFNER, A. 80, 81
PFIFFNER, O.A. 79
PFISTER, G. 226
PHAM, D.T. 202
PHAM, M. 261
PHAM-DIN-TUAN 201

PHAN, T. 220
PHARAOH, T. 83, 84
PHERSSON, M. 175
PHILIPONA, R. 176, 177, 228
PHILIPP, A. 190
PHILIPPE, C. 158
PHILLIPS, R.J. 249
PHILLIPS, T.G. 243
PIACSEK, S. 169, 172, 173
PIATANESI, A. 267, 268
PIBARET, B. 209
PICARD, S. 179
PICARDI, G. 242, 244
PICCARDI, G. 171
PICCARDI, L. 75, 277
PICCININI, D. 89, 90
PICEK, J. 193
PICHERALL, M. 167
PICHON, A. 169
PICK, M. 225
PICKART, R.S. 165, 168
PICON, P. 199
PICORNELL, M.A. 179
PICOT, N. 219
PICSKAY, Z. 84
PIEGAY, H. 156, 160
PIEHLER, H. 148
PIEL, A. 208, 209
PIERDICCA, N. 102
PIERI, M. 145
PIERINI, S. 166, 172
PIERRE, C. 118
PIERSANTI, A. 75, 104
PIETERS, C. 244
PIETRZAK, J. 169
PIGEONNEAU, F. 234
PILAN, L. 146
PILCHER, C. 237
PILEGAARD, K. 176
PILLET, R. 69
PILLING, C. 144
PILLING, M.J. 196, 197
PILLINGER, C.T. 244
PILOZZI, A. 189
PINA ALMEIDA, E. 113
PINAR, A. 64, 89
PINAR, R. 105, 106
PINARDI, N. 124, 129, 168, 172, 173, 198, 259, 260
PINAULT, J.-L. 140
PINCUS, R. 192
PINET, P.C. 237, 245
PINGUE, F. 92-94, 277
PINNOCK, M. 217
PINOT, S. 189
PINT, J.M. 172
PINTO, J.G. 164
PINTO, V. 105, 106, 276
PINTON, J.-F. 253, 254
PINTY, J.-P. 185
PIO, C. 187
PIO, C.A. 199
PIOCK-ELLENA, U. 154
PIOMBO, A. 74
PIPER, D.J.W. 92, 120
PIRASZEWSKI, M. 136, 137
PIRAZZOLI, P.A. 122, 123, 129, 173, 191
PIRES, C. 204
PIRINGER, M. 280
PIRIOU, C. 180
PIRKER, O. 155
PIRO, O. 259
PIRO, S. 102
PIRRE, M. 227
PIRRONELLO, V. 243, 244
PISACANE, G. 179, 201
PISCERCHIA, P.-F. 86
PISCINI, A. 268
PISCITELLI, S. 252, 272
PISCITELLO, M. 102
PISERCHIA, P.-F. 67
PISKAREV, A.L. 105, 106
PISNICHENKO, I.A. 191
PISSARENKO, N. 221
PISSARENKO, N.F. 221, 222
PITALENKO, E.I. 112
PITERS, A.J.M. 226
PITONAK, P. 85
PITRAT, D. 167
PLAG, H.-P. 128, 129
PLAGENS, H. 187
PLAKHINA, I.N. 177
PLANA, F. 178
PLANCHON, O. 158
PLANE, J.M.C. 195-197, 211
PLANKE, S. 116
PLANTE, A. 203
PLANTEVIN, P.H. 232, 262
PLANTON, S. 177, 181, 193, 201
PLASIENKA, D. 84
PLASS-DÜLMER, C. 196, 197
PLATE, E. 147
PLATT, U. 185, 193-198, 227, 230
PLAUT, G. 203
PLENEFISCH, T. 86, 87
PLOMEROVA, J. 70, 87, 88
PLOTKIN, V.V. 86, 210
PLUMB, R.A. 230, 266
PLUSHYEV, V.A. 155
PLYASOVA BAKOUNINA, T.A. 215
PNRH TEAMS 157
POCCARD, I. 176, 188
POCOVI-JUAN, A. 102
PODEWSKI, S. 168
PODLADCHIKOV, Y. 77, 79, 80, 85
PODLADCHIKOV, YU.YU. 263
POESEN, J. 160
POGGI, P. 90
POGGIO, L. 175
POGOSSIAN, A. 273
POHJA, T. 192
POHL, M. 87
POHL, M.M. 86
POHL, W. 148
POIDRAS, T. 99
POINTEAU, I. 109
POISSON, A. 163
POISSON, N. 205, 206, 225
POKHIL'KO, S.N. 210
POKHOTELOV, O. 273
POLANSKEY, C. 240
POLCHER, J. 144, 146, 188, 192, 193
POLET, J. 87
POLETTO, G. 224
POLIAKOV, A. 71, 74, 82
POLIAKOV, A.N.B. 68
POLITANO, H. 215
POLKKO, J. 239
POLOM, U. 83, 84
POLONAISE WORKING GROUP 83, 84
POLONAISE'97 WORKING GROUP 84
POLONIA, A. 82, 114
POLONIO, D. 177
POLVANI, L. 266
POLYAKOV, S.V. 216
POLZIN, K.L. 161
PONATER, M. 230, 233
PONCE-ALVAREZ, M.T. 156
PONCHAUT, F. 128
PONCIN, CH. 181, 183
PONDRELLI, S. 65
PONGRACZ, R. 191
PONT, V. 186
PONTE, M. 270, 271
PONTE, R. 132
PONTE, R.M. 125, 132
PONTIER, R. 264
PONZIANI, F. 89
PONZINI, G. 140, 141
POOR, A. 209
POPA, M. 64, 77, 91, 92
POPE, V.D. 232
POPECKI, M.A. 214, 223
POPEL, S.I. 216, 240
POPELAR, J. 135
POPESCU, D. 220, 221
POPESKOV, D. 106
POPIELAWSKA, B. 216
POPOV, A.M. 77, 78
POPP, T. 110, 111
POPPE, D. 197, 198
POPRAWA, P. 73
PORCU, F. 179
POREL, G. 158
PORFIDO, S. 275
POROSHINA, I. 115, 117
PORT, G. 100
PORTENEUVE, J. 226, 227
PORTER, J.R. 113
PORTH, R. 81
PORTMANN, R. 193
PORTNYAGIN, YU.I. 210, 211
POSADAS, A. 91
POSELOV, V.A. 105, 106
POSEWANG, J. 118
POSNER, A. 223
POSPELOVA, G.A. 98
POSTMA, D. 151
POSTYLYAKOV, O.V. 226, 227
POT, V. 158
POTAPOV, O.A. 122
POTTELETTE, R. 223
POTYLITSIN, P.G. 266
POULARD, C. 157
POULET, D. 177
POULET, G. 194
POULIQUEN, G. 119
POUPINET, G. 80
POUPINET, X. 88
POUPONNEAU, B. 180, 181
POUQUET, A. 215
POUROVSKYI, L.V. 147
POUTANEN, M. 133, 134
POUYAUD, B. 157
POWELL, K.G. 211, 213, 240
POZHARSKI, E.V. 120, 121
POZZI, J.-P. 158
POZZI, J.P. 79, 100, 112
PRADELLE, F. 177
PRANGE, R. 240, 241
PRASAD, S.N. 143
PRASAD, S.S. 208, 233
PRATESI, G. 110
PRATICELLI, N. 114
PRATT, G. 234
PRATX, B. 157
PRECH, L. 221, 222
PREECE, R. 190
PREISS, S. 112
PRELLER, R. 201
PRELOGOVIC, E. 86
PRESCOTT, W. 134
PRESSLEY, R.A. 94
PRESTININZI, A. 276
PRESTON, E. 255
PRESTON, N. 271
PRESTON, N.J. 270, 271
PREUSSE, P. 184, 208
PREVOT, A. 175
PREVOT, L. 157
PREVOT, M. 96-99
PRIAMIKOV, S. 169
PRIBNOW, D. 109, 110
PRICE SCIENCE TEAM 196
PRICE, C. 256
PRICE, E. 128
PRICE, J.C.W. 258
PRICE, N.B. 198, 199
PRIEBE, M. 200
PRIEST, E.R. 223
PRIEUR, D. 115
PRIGANCOVA, A. 191
PRILEPIN, M. 81
PRIMAVERA, L. 215
PRIMICERI, R. 105
PRITCHARD, M. 78
PRIVITERA, E. 82, 92, 278
PROCHAZKA, I. 135
PROCHNOW, D. 143
PROCKTER, L. 237
PROCKTER, L.M. 117, 238
PROCTOR, F.H. 234
PROCTOR, R. 129, 167, 200
PRODEHL, C. 63, 77, 78, 80, 83
PRODI, F. 178, 179, 184
PROFETI, G. 279
PROKHORENKO, V.I. 220, 222
PROKOPIEV, U. 244

PRÖLSS, G.W. 218
PROTAT, A. 180
PROVAN, G. 217
PROVENZALE, A. 248, 256, 258, 259, 265, 266
PROVENZANO, G. 159
PROVOST, A. 94, 111
PRUNER, P. 102
PRYOR, S. 176
PRYSE, S.E. 210
PRZYBYLSKA, G. 229
PTAK, T. 149
PUCHER, R. 104
PUCHKOV, V. 83
PUDOVKIN, M.I. 212, 214, 216
PUECH, C. 159, 269
PUEYO-MORER, E.L. 102
PUGA, E. 68
PUGALOVA, S.S. 260
PUGLIESE CARRATELLI, E. 267
PUGLISI, C. 122
PUGNAGHI, S. 146
PUIG, C. 73
PUIG, P. 167, 168
PUIGDEFABREGAS, J. 167, 168
PUJADES, L. 91, 103
PUJADES, L.G. 276, 277
PULAKOS, C. 191
PULGAR, J.A. 86
PULINETS, S.A. 219, 273
PULKINEN, T.I. 220
PULKKINEN, T.I. 217
PUMPANEN, J. 176
PUNONGBAYAN, R.S. 94
PURUCKER, M. 105
PURVANCE, D.T. 141
PUSHKIN, V.F. 219
PUTZ, E. 226, 280
PUTZKA, A. 161, 162
PYCHA, J. 218
PYKHOV, N.N. 167
PYLE, J. 197
PYLE, J.A. 195, 232, 262
PYRAK-NOLTE, L.J. 108
PYSKLYWEC, R.N. 73
PYTHAROULIS, I. 178, 188
QI, L. 128
QIAN, B. 128, 144, 170, 190
QIN, C.Y. 271
QIU QI-XIAN 122
QUADFASEL, D. 161, 166, 167, 170
QUADRELLI, R. 191
QUADRI, C. 179
QUANTE, M. 175, 184
QUARANTA, G. 158, 159
QUARTA, T. 103, 105
QUARTERONI, A. 91
QUEGAN, S. 155
QUEINNEC, J. 241, 242
QUELOZ, D. 248
QUEMAERAIS, E. 214
QUEMENEUR, F. 115
QUEMERAIS, E. 213, 214, 242
QUEROL, X. 178
QUETIN, P. 141
QUILFEN, Y. 182
QUINN, P. 152, 155
QUINN, R. 238
QUINTANILLA, J. 158
QUINTARD, M. 157, 158
QUINTERO, R. 82
QUIRICO, E. 243, 247
QUISEFIT, J.P.; 280
RAAB, S. 111
RAABE, A. 174, 175, 185, 203
RABAE, A.M. 106
RABBEL, W. 83-87, 103
RABITTI, S. 199
RACCA, G.D. 245
RACLOT, D. 269
RADAKOVITCH, O. 199
RADHAKRISHNA, I. 110
RADICELLA, S.M. 219, 220
RADICS, K. 197, 198
RADULAIAN, M. 64
RADULESCU, F. 136
RADULIAN, M. 77, 91, 92, 271
RADWAN, A.H.A. 103
RAGETTE, G. 155
RAGNARSSON, S. 78
RAGO, V. 172, 173
RAHMSTORF, S. 161, 164, 165
RAHNER, S. 200
RAILLARD, O. 167
RAILLARD, S. 76
RAIMBAULT, G. 153
RAIMBAULT, P. 199
RAIROUX, P. 204, 205
RAISSOUNI, N. 107
RAJEWSKA-WIECH, B. 228
RAKHMATULIN, R.A. 212
RAKHMATULLIN, R. 101
RAKOTOMALALA, N. 158
RAM BABU, H.V. 107
RAMACHER, B. 194
RAMALHETE, D. 88
RAMASCO, M. 270
RAMBAL, S. 159, 160
RAMEL, C. 134
RAMIREDDYGARI, S.R. 152
RAMIREZ, C. 263
RAMIREZ, J. 140, 162
RAMIREZ, M. 77
RAMIS, C. 179, 268
RAMOREZ, J.J. 163, 167
RAMOS, D. 277
RAMRATH, A. 97, 98
RAMSAUER, J. 129
RAMSAY, F.J. 258
RAMSTEIN, G. 189
RANA, G. 144, 177
RANDALL, D.A. 188, 192
RANDEL. W.J. 208
RANDEU, W.L. 184
RANERO, C. 114, 115
RANERO, C.R. 115-118
RANGA RAJU, K.G. 146
RANKINEN, K. 146
RANNIK, Ü. 176, 192
RANNOU, P. 239
RAO, M.P. 174, 261
RAOULT, A. 243
RAPOLLA, A. 105
RAPPENGLÜCK, B. 187, 188, 230
RAPPENGLUECK, B. 197, 198
RAPTAKIS, D. 277
RASCHKE, E. 184, 205, 206
RASH, J.P.S. 217
RASINKANGAS, R. 212
RASMUSSEN, A. 177
RASMUSSEN, E. 169
RASMUSSEN, E.B. 169
RASMUSSEN, J.J. 265
RASMUSSEN, O. 107
RASO QUINTANA, J. 270
RASPOPOV, O.M. 65, 189, 228
RATAJ, M. 245
RATKIEWICZ, R. 215
RATMEYER, V. 163
RATSIMANDRESY, A. 163
RATSIMANDRESY, A.W. 167
RATSIVALAKA, C. 169
RATTE, J.-P. 160
RATTO, C.F. 178
RAUBER, M. 140
RAUCH, J.L. 211, 220, 221
RAUCH, J.L. 221
RAUDSEPP, U. 168
RAUER, H. 243, 247, 248
RAULIN, F. 244
RAUPACH, M.R. 176
RAVA, M. 270
RAVEGNANI, F. 261
RAVETTA, F. 180, 231
RAVILLY, M. 119
RAVILOVA, N. 101
RAYEZ, M.-T. 194, 195
RAYMOND, C.A. 71, 128
RAYMOND, J.C. 225
RAYNAUD, S. 109, 191
RAYNER, N.A. 190
RAZACK, M. 158
RAZAKARISOA, O. 158
RAZINKOV, O.G. 209
RAZORENOVA, O.A. 191
RDAME, C. 199
RE, E. 244
READ, P.L. 203, 238, 239, 256
READMAN, P.W. 105, 106, 115
REALE, F. 213
REALE, O. 178, 268
REBERAC, F. 223
REBESCO, M. 65, 90
REBEZ, A. 65
REBMANN, C. 177
REBSCHER, D. 278
RECHOU, A. 208
REDAELLI, G. 228
REDAELLI, S. 215
REDDING, B. 250
REDDMANN, TH. 208
REDELSPERGER, J.L. 188
REDONDO, J.M. 257-259, 264
REED, D.N. 203
REED, P.L. 239
REEDER, S. 112
REEH, G.A. 105, 106
REEMST, P. 74
REES, A. 216
REES, D. 210
REES, F. 235
REES, J.M. 257, 258
REESE, A. 186, 196
REEVES, G. 223
REEVES, G.D. 212, 217
REFAIT, PH. 151
REGENAUER-LIEB, K. 63, 70
REGLI, CH. 140
REGNIER, M. 69
REGNIER, P. 148
REHAULT, J.P. 79, 116, 120
REIANO, D. 278
REICHARDT, J. 185
REICHENBACH, P. 279
REICHERT, B. 149
REICHERT, B.K. 189
REICHERT, C. 115, 117
REICHERT, K. 200, 201
REICHERT, L. 196, 197
REICHERT, P. 141
REID, I.D. 116
REID, R.J. 250
REIGBER, CH. 81, 126-129, 134
REILINGER, R. 81
REIMANN, S. 197, 198
REINER, A. 204, 205
REINER, M.J. 213
REINER, T. 196, 197
REINHARD, M. 150
REINHART, E. 136
REINISCH, B.W. 219
REISBERG, L. 198
REISNER, G.I. 77
REKOLAINEN, S. 141
RELLE, M. 118
RELLE, M.K. 118
REME, H. 220, 236, 240
REMY, F. 126, 127
RENARD, F. 141
RENARD, J.B. 227, 243, 244
RENARD, J.C. 241
RENARD, P. 139
RENAUD, A. 228
RENAUD, X. 79
RENAULT, P. 140
RENAUX, B. 158
RENFREW, I. 180
RENFREW, I.A. 181
RENGER, W. 228
RENNENBERG, H. 230
RENNER, E. 177, 229
RENOUARD, D. 166, 263
RENSCHLER, C. 146
RENSSEN, H. 189
RENTSCH, M. 124, 125, 130
REPINA, I.A. 181, 182
REPPIN, J. 163
REPUSSEAU, PH. 79

RESHEF, M. 118
RESHETNYAK, M. 96, 97
RESTA, F. 94
RESTON, T.J. 115, 116
RETALIS, D. 176
REUTER, A. 184
REVA, YU.A. 129
REVEL, M. 198
REVERDIN, G. 164-166, 181
REVIL, A. 110, 112
REVVA, V.N. 112
REX, M. 227
REY, V. 167
REYNAUD, T. 162
REYRE, Y. 98
REYSS, J.-L. 198
REYSS, J.L. 117
REZEAU, L. 223
REZHENOV, B.V. 212
REZNIK, G.M. 263
RHEIN, M. 162, 169, 172, 173
RHOADES, D.A. 272
RHODES, R. 201
RHODES, R.C. 202
RIBEIRO, A. 80
RIBEIRO, I. 122
RICARD, J.L. 183, 192
RICARD, L.P. 95
RICARD, Y. 69, 72, 80, 245, 262, 263
RICAUD, PH. 209, 226
RICCARDI, U. 278
RICCIARDULLI, L. 208
RICCO, C. 277, 278
RICHALET, J. 246
RICHARD, P. 158, 234
RICHARD, Y. 176, 188, 191
RICHARDS, C.J. 256
RICHARDS, K.J. 165, 260
RICHARDS, M. 72
RICHARDS, M.L. 209
RICHARDS, P.G. 218
RICHARDSON, P. 162
RICHER, H. 232, 262
RICHET, P. 108
RICHMOND, A.D. 211
RICHNER, H. 175
RICHNOW, H.H. 149
RICHTER, A. 194, 195
RICHTER, B. 122, 123, 127, 133, 136
RICHTER, S.H. 175
RIDAME, C. 199
RIDOU, M. 259
RIEDEL, M. 267
RIEDER, R. 249
RIEDLER, W. 222
RIEMANN, R. 246
RIEPE, M. 164, 165
RIEPL, ST. 134
RIERA, M. 172
RIES, J.B. 159
RIES, J.C. 124
RIES, J.R. 124
RIETBROCK, A. 82
RIETVELD, M. 216, 221
RIETVELD, M.T. 210
RIEUTORD, M. 257
RIGAUT, F. 120
RIGNAULT, E. 111
RIGO, A. 64, 123
RIGOL, E. 113
RIGOLLIER, C. 107
RIGUZZI, F. 274
RIHM, R. 267
RIISAGER, J. 98
RIISHOJGAARD, L.P. 203, 208
RIJNAARTS, H.H.M. 150
RILEY, J.J. 257
RILLER, U. 80, 111
RIMMELIN, P. 144
RINALDI, C. 86
RINALDO, A. 252
RINCON, P. 77
RING, U. 80, 81
RINGENBACH, J.-C. 76
RINKE, A. 256
RINNE, J. 187
RIOU, C. 151, 157
RIPEPE, M. 89, 90
RIPPETH, T. 167
RISSMANN, J. 178
RITCHIE, H. 203
RITTER, O. 113, 114
RITTER, P. 114
RITTER, S. 105
RIUS, A. 129, 219
RIVAS, R. 142
RIVERA, A. 111
RIVERA, L. 64, 91
RIVERO, L. 105, 106, 276
RIVES, T. 113
RIVIN, I. 193
RIXEN, M. 166
RIYALTA, E. 95
RIZI, V. 228
RIZZI, R. 185, 186
RIZZO, V. 255
ROADS, J. 181
ROALD, L.A. 154
ROBAK, H. 76
ROBERT, C. 227
ROBERTI, L. 178
ROBERTS, A.P. 98, 99
ROBERTS, D. 237
ROBERTS, G. 144
ROBERTS, M.J. 166
ROBERTS, N. 180
ROBERTS, N.M. 180
ROBERTS, R.G. 91
ROBERTSON, D. 71
ROBINS, R.E. 234, 266
ROBINSON, T.R. 209
ROBINSON, W. 132
ROBLE, R.G. 211
ROBOCK, A. 183
ROCA, A. 276, 277
ROCH, M. 232, 261
ROCHA, A. 191
ROCHE, C. 158
ROCHE, R. 268, 278
ROCHETTE, P. 96-98, 101, 102
ROCHSTRÖM, J. 155
ROCKEL, B. 185, 192
RÖCKMANN, T. 209
RODGERS, D. 234
RODHE, J. 168
RODICHEV, E. 254
RODIN, V. 273
RODNIKOV, A.G. 70, 73
RODRIGO, J. 140
RODRIGO, R. 240
RODRIGUES, D. 67, 91
RODRIGUEZ DE LEON, A. 163
RODRIGUEZ REY, A. 108, 109
RODRIGUEZ, I. 167
RODRIGUEZ, J. 160
RODRIGUEZ, L. 108
RODRIGUEZ, L.R. 173
RODRIGUEZ, R. 257
RODRIGUEZ, T. 179
RODRIGUEZ-ITURBE, I. 252
RODRIGUEZ-PASCUA, M. 77
RODRIGUEZ-REY, A. 109
RODRIGUEZ-SANTANA, A. 163
ROEBBER, P.J. 257
ROECKNER, E. 183, 230
ROED, L.P. 166
ROELOFS, G.J. 225, 230, 232
ROESCH, A. 183
ROESER, H.A. 107
ROESSLER, J. 187
ROETHER, W. 161, 198
ROETZLER, K. 111
ROGASIK, H. 148
ROGENHAGEN, J. 115
ROGISTER, Y. 104
ROGNVALDSSON, S. 75
ROGNVALDSSON, S.TH. 92, 274
ROGOWSKI, J. 136, 137
ROGOWSKI, J.B. 136, 137
ROGOZHIN, E.V. 272
ROHARDT, G. 171
ROHRER, F. 197, 198
ROHRMEIER, M. 140
ROIG, A. 157
ROIG, J.Y. 79, 80
ROJAS, J.F. 239
ROJAS, J.L. 125, 130
ROKHINSON, E.E. 156
ROKITYANSKY, I.I. 83, 112-114, 120, 121, 253
ROLINSKI, S. 169
ROLLASON, R.M. 211
ROLLET, N. 79, 115
ROMAGNOLI, C. 122, 268
ROMAIRONE, A. 268, 270
ROMANELLI, F. 89
ROMANI, P.N. 247
ROMANO, C. 95
ROMANOU, A. 168
ROMANOV, S. 217, 220-222
ROMANOV, S.A. 220-222
ROMANOV, V. 220, 221
ROMANOVA, N.N. 264
ROMANTSOVA, T. 221
ROMANTSOVA, T.V. 221
ROMANYUK, T.V. 66, 67, 70
ROMASCHENKO, M.I. 155
ROMASHETS, E.P. 213
ROMEO, R. 275, 276
ROMERO, M. 115, 116
ROMERO, R. 179, 268
RÖMKENS, M.J.M. 143
ROMMEVAUX-JESTIN, C. 119
ROMOLI, M. 213
ROMPOLT, B. 243
RON, H. 98, 102
RONCHI, C. 265
RONCONI, M.L. 276
RONEN, D. 147
RONGO, R. 271
RONTU, L. 228
ROOD, M.J. 229
ROOD, R. 207
ROOS-SEROTE, M. 239
ROPERCH, P. 82
ROSANOVA, T. 250
ROSATELLI, G. 278
ROSBJERG, D. 140, 141, 156
ROSCA, V. 136
ROSCOE, H. 226
ROSE, H. 161
ROSE, TH. 100, 119
ROSEL, J. 178, 199
ROSEN, J. 228
ROSEN, R.D. 132
ROSENBAUER, H. 241, 242
ROSENBERG, C.L. 111
ROSENBERGER, A. 118
ROSENBLATT, P. 237
ROSENBUSH, V. 242
ROSENKRANZ, C. 267
ROSI, M. 278
ROSIER, S.M. 230
ROSIN, P.L. 278
RÖSLER, F. 280
ROSLOV, YU. 75
ROSOLEN, C. 243
ROSS, G.M. 92
ROSSET, R. 178, 231
ROSSETTI, F. 76
ROSSI, F. 269
ROSSI, M.J. 195
ROSSI, P. 142, 151
ROSSINI, P. 173
ROSSINO, M. 270
ROSSO, R. 144, 154, 255, 270, 271
ROSU, E. 84
ROTA, D. 279
ROTACH, M. 174
ROTACH, M.W. 175
ROTANOVA, N.M. 106, 107
ROTH, I. 223
ROTH, M. 212, 213, 217
ROTHACHER, M. 123, 124, 128, 129, 133
ROTHE, M. 176
ROTT, H. 126, 155
ROTT, M. 244
ROTTGER, J. 210

INDEX

ROTUNDI, A. 244, 247
ROTWAIN, I.M. 256
ROUAN, D. 248
ROUCHY, J.M. 118
ROUCOU, P. 191
ROUJEAN, J.-L. 176
ROUJEAN, J.L. 157
ROULIER, S. 158
ROUQUETTE, S 220
ROURE, F. 73
ROUSE, P.J. 95
ROUSH, T. 247
ROUSSEAU, D.D. 190
ROUSSEAU, V. 118
ROUSSET, D. 90, 91
ROUVIER, H. 102
ROUWHORST, W.F.J.A. 234
ROUX, A. 221, 241, 242
ROUX, F. 180
ROUX, S. 254
ROVELLI, A. 90, 277
ROVIRA, A. 143
ROWAN, J.S. 155
ROWE, C. 135
ROWE, J. 113
ROWELL, D.P. 165, 191
ROWLANDS, G. 222
ROWLEY, D.M. 196
ROY-BARMAN, M. 163
ROYER, J.-F. 191-193
ROYER, J.-Y. 82
ROYER, J.J. 79, 110
ROYER, L. 86
ROZANES, P. 124
ROZANOV, E. 226, 227, 232, 233, 262
ROZANOV, E.V. 186
ROZANOV, V. 226, 227
ROZAVOV, E. 226, 227
ROZEN, D. 195
ROZIN, U. 160
ROZUMENKO, V.T. 210
ROZWADOWSKA, A. 181, 182
RUA, A. 164, 165, 178, 179, 189, 229, 234, 235, 267, 269
RUBBIA RINALDI, G. 279
RUBIN, D.M. 143
RUBINKIEWICZ, J. 85
RUBINO, A. 166-168, 172
RUCINSKI, D. 213, 214
RUCKER, H.O. 243
RUDAKOV, V.V. 228
RUDANT, J.-P. 123
RUDDICK, K.G. 167
RUDELS, B. 170
RUDELS, R. 170
RUDENKO, V.N. 120
RUDIS, R. 234
RUDOLPH, J. 194
RUDY, R.J. 210
RUEDA, M.-J. 163
RUEDA, M.J. 163
RUEGG, J.-C. 81
RUEGG, J.C. 123
RUELLAN, E. 115
RUESS, D. 136
RUETTENER, E. 272
RUF, P. 129
RUFFET, G. 63
RUFFINI, G. 219
RÜGGE, K. 149
RUHE, C. 145
RUHNKE, R. 208
RUISI, R. 280
RUIZ DE ARGANDOA, V.G. 109
RUIZ DE ELVIRA, A. 167
RUIZ, A. 203
RUIZ, J.M. 153, 154, 160, 269, 279
RUIZ, S. 166, 167
RUIZ-PINO, D. 163
RUIZDEELVIRA, A. 255
RUKHOVETS, L. 203
RULLI, M.C. 270, 271
RUMMEL, R. 127
RÜMPKER, G. 87
RUMPLER, D. 96, 97
RUMYANTSEV, V. 154
RUNDLE, J.B. 70, 94, 255
RUNOV, A.V. 212, 214
RUOTOISTENMAKI, T. 105, 106
RUPOLO, V. 172, 173
RUPPERT, L. 187
RUPRECHT, E. 164, 165
RUS, T. 136, 137
RUSANOV, A. 221
RUSINIAK, L. 109, 110
RUSS, N. 251
RUSSELL, C.T. 211, 216, 217, 220, 221
RUSSELL, S.M. 116
RUSTENBACH, J. 221
RÜSTER, R. 207
RUTI, P.M. 179, 201
RUTIGLIANO, P. 72
RUTLEDGE, D.R. 135
RUTTER, E. 109, 110
RYABCHENKO, V.A. 260
RYAN, J.W. 135
RYBACH, L. 110
RYBALKA, A. 78, 79
RYBAO, J. 271
RYBERG, T. 87
RYBICKI, K.R. 89
RYCROFT, M.J. 211, 212, 215, 216
RYKUNOV, L.N. 265
RYLOV, A. 265
RYMER, H. 122
RYZHIKOV, G.A. 90
RYZHYI, B.P. 106
RZADKIEWICZ, S. 267
SABADELL, F.J. 91
SABADELL, J.F. 91
SABADINI, R. 63, 64, 68, 70-72, 75, 104, 127
SABATES, A. 168
SABATIER, P.C. 267
SABATINI, D. 150
SABATINI, D.A. 149
SABETIAN, A. 115
SABININ, K.D. 263
SABLOTNY, R. 249
SABLOTNY, R.M. 249, 250
SACCHETTI, D. 268
SACCHI, M. 74
SACCOROTTI, G. 88, 92, 93, 278
SACHPAZI, M. 115, 278
SADOURNY, R. 183
SADOUX, S. 166
SADYKOV, D. 71, 153, 154, 272
SAELTHUN, N.-R. 154
SAENGER, N. 142, 156
SAENKO, O.A. 168
SAFANDA, J. 65, 66, 73, 109, 110
SAFARICZ, M. 76
SAFRANKOVA, J. 217, 220-222
SAFRANKOWA, J. 222
SAFRONOV, V.S. 248
SAGAR, P. 252
SAGNOTTI, L. 64, 99, 101
SAHUQUILLO, A. 140, 156, 160
SAI. O. 156
SAIC, S. 96, 97
SAID, F. 176
SAID, M.A. 149
SAIERS, J.E. 140
SAILHAC, P. 106
SAILLANT, S. 220
SAITO, M. 103
SAITO, S. 215
SAKAI, A. 118
SAKAI, K. 189
SAKELARIOU, N. 229
SAKR, K.O. 103
SALA, M. 160
SALAMA, A. 247, 248
SALAS Y MELIA, D. 169, 171
SALAS, J. 167, 168, 259
SALAT, J. 166, 168
SALEM, C. 215, 222
SALGOT, M. 155
SALIN, D. 158
SALKINOJA-SALONEN, M. 176
SALLARES, V. 116
SALLES, C. 160
SALLES, M.A. 182
SALSTEIN, D.A. 131-133
SALTELLLI, A. 176
SALUSTI, E. 93, 172, 173, 258, 266
SALVADOR, R. 178
SALVANY, C. 148, 152
SALVI, S. 89
SALVINI, F. 93
SALVIO, L. 237
SAMARDJIEVA, E. 64
SAMMARTINO, S. 109
SAMMONDS, P.R. 112
SAMSONOV, A.A. 212
SAMUELSON, R.E. 247
SAMUELSSON, J. 74
SANAK, J. 187
SANCHEZ SESMA, F.J. 91
SANCHEZ, F.J. 277
SANCHEZ, J. 168, 276
SANCHEZ, J.L. 234, 235
SANCHEZ, M.A. 259, 264
SANCHEZ-ARCILLA, A. 167
SANCHEZ-DIEZMA, R. 145, 160
SANCHEZ-PEREZ, J.M. 157, 158
SANCHEZ-VILA, X. 140
SANDAHL, I. 211, 212, 217, 220, 221
SANDER, J. 162
SANDER, R. 186, 195
SANDERS, C.A.E. 81
SANDERSON, D.J. 113
SANDERSON, T.R. 214
SANDHOLT, P.E. 217
SANDO, A.B. 172, 173
SANDOVAL, S. 116
SANDRONI, V. 198, 199
SANDWELL, D. 128
SANFORD, T.B. 126
SANGRA, P. 162, 163, 167
SANIDA, G. 187
SANINA, I.A. 87
SANKOV, V. 78
SANNA, A. 178
SANNA, G. 131
SANNINO, G. 172, 173
SANSOSTI, E. 89
SANTACROCE, R. 95
SANTAGUIDA, R. 179
SANTANA, R. 163
SANTANGELO, R. 146
SANTARATO, G. 142
SANTASECARIA, V. 261
SANTIAGO-MANDUJANO, F. 163
SANTOLERI, R. 172
SANTOLIK, O. 212, 221, 222
SANTOS, M.J. 144
SANTURETTE, P. 180
SANZ, J. 218, 219
SANZ, J.M. 178
SANZ, M.J. 187, 188, 229
SANZA, G. 178, 199
SAPARIN, P.I. 256
SARA, S.A. 280
SARACCO, G. 90
SARAO, A. 75, 89, 91
SARDESHMUKH, P. 132
SARDIN, M. 149
SARDINI, P. 109
SARDOU, O. 115
SARI, C. 119
SARIFFENA, D. 125, 126
SARKISYAN, A.S. 162, 168
SARMA, V.V.S.S. 199
SARNTHEIN, M. 98
SARRIS, E.T. 220
SARSITO, D.A. 123
SARTORI, R. 87
SARY, C. 74
SAS-UHRYNOWSKI, A. 106, 107
SASANO, Y. 227
SASOROVA, E.V. 273
SASS, J. 109, 110
SATOH, T. 85
SATORRE, M.A. 243
SAUCK, W. 150
SAUER, K. 213, 222, 240, 241
SAULI, P. 209, 218

SAULNIER, G.M. 157, 158
SAULT, R.J. 241
SAUSEN, R. 230-233
SAUSSE, J. 109
SAUTE, M. 185
SAUTER, E.A. 107
SAUTER, M. 139
SAUVAUD, J. 207, 220-222, 236
SAUVAUD, J.-A. 207, 220-222
SAUVAUD, J.A. 220-222, 240
SAUVAUD, J.-A. 207, 220-222
SAUVAUD, J.A. 220-222, 240
SAVENIJE, H.H.G. 153
SAVI, F. 141, 147
SAVIJÄRVI, H. 239
SAVIN, S. 217, 220-222
SAVIN, S.P. 221
SAVITSKAYA, S. 208
SAVOYE, B. 120, 267
SAWYER, D. 116
SAWYER, W. 94, 111
SAXENA, R.K. 146
SAYED, M. 170
SAZONOV, I. 263
SAZONOV, I.A. 265
SBRANA, A. 94, 95, 278
SCAIFE, A.A. 208
SCALELLA, G. 275
SCALSKY, A. 220, 221
SCALZO, A. 276
SCANLON, B.R. 147
SCARASCIA MUGNOZZA, G. 276
SCARAZZATO, P. 65, 172
SCARLATO, P. 93
SCARLE, R. 115
SCARPA, R. 93, 277
SCHAAB, G. 186
SCHADE, U. 243, 244
SCHAEFFER, J. 249
SCHAEFFER, P. 127, 130
SCHÄFER, A. 73
SCHÄFER, G. 141, 142, 158
SCHÄFER, H.-J. 208
SCHÄFER, J. 196, 197, 204, 205
SCHÄFER, U. 105
SCHAFMEISTER, M.-T. 140
SCHAMING, M. 115
SCHANZ, L. 179
SCHÄR, C. 155, 165, 179, 190, 265
SCHARER, U. 116
SCHARFMAN, V.S. 92
SCHARMER, G. 236
SCHARROO, R. 124-126
SCHARTAU, M. 260
SCHATZMANN, M. 177, 178
SCHAUER, B. 163
SCHAUER, U. 170
SCHAYES, G. 185
SCHECK, M. 73, 74, 76, 83
SCHEIBKE, R. 149
SCHEID, J. 134
SCHEINERT, M. 122
SCHEMM, J.-K.E. 192
SCHEPEL, M. 153
SCHERER, H. 213
SCHERER, K. 213, 214, 246
SCHERLIESS, L. 209, 210
SCHERNECK, H.-G. 71, 128, 132-134
SCHERTZER, D. 65, 192, 215, 252-255
SCHEUCHL, B. 126
SCHIANO, M.E. 164, 181
SCHIDLOWSKI, M. 238
SCHIEDEK, T. 149
SCHILL, E. 96, 97
SCHILLER, C. 230
SCHILLER, J. 162
SCHILLHORN, T. 115
SCHILLING, V. 208
SCHINDELE, F. 268
SCHINDER, P.D. 240
SCHINDLER, H. 145
SCHINDLER, K. 222
SCHINDLER, U. 141, 156
SCHIRMER, M. 149
SCHJODT-OSMO, O. 268
SCHLAGER, H. 230, 232, 233
SCHLAGER, W. 196, 197
SCHLEGEL, K. 209-211, 217, 218, 223
SCHLESIER, A.C. 218
SCHLESINGER, M. 226, 227, 232, 233, 262
SCHLICKER, O. 150
SCHLÜNZ, B. 120
SCHLÜNZEN, K.H. 177, 178
SCHLÜSSEL, P. 182
SCHLÜTER, W. 134-136
SCHMALZL, J. 263
SCHMEITS, M.J. 165
SCHMELING, H. 68, 70
SCHMID, H.P. 174-176
SCHMID, S.M. 81
SCHMIDLIN, F.J. 193
SCHMIDT, A. 102, 103
SCHMIDT, E. 115
SCHMIDT, G. 207
SCHMIDT, H. 178
SCHMIDT, J. 87
SCHMIDT, M. 125, 126
SCHMIDT, N. 200
SCHMIDT, P.W. 96
SCHMIDT, S. 66, 67, 198
SCHMIDT, T. 165
SCHMIDT, W. 213, 214, 242
SCHMIEDER, B. 223, 225
SCHMIEDL, G. 199
SCHMINCKE, H.-U. 267
SCHMINDER, R. 207, 209, 210
SCHMITH, T. 165
SCHMITT, B. 239, 243, 247
SCHMITT, F. 65, 190, 252-254
SCHMITT, R. 197, 198
SCHMITT, R.W. 161
SCHMITTBUHL, J. 252
SCHMITTNER, A. 161
SCHMITZ, G. 208, 233
SCHMITZ-HÜBSCH, H. 131, 132
SCHMUGGE, T. 154
SCHNABEL, S. 153
SCHNADT, C. 226
SCHNEGG, P.-A. 114, 147
SCHNEIDER, D. 74
SCHNEIDER, H. 248
SCHNEIDER, J. 111, 248
SCHNEIDER, M. 135, 147
SCHNEIDER, P. 168
SCHNEIDER, R.R. 120
SCHNEIDEREIT, M. 179
SCHNEITER, D. 177
SCHNELLER, W.J. 210, 218
SCHNEPP, E. 97, 98, 104
SCHNITZLER, K.-G. 176
SCHOBER, A. 146
SCHOBER, C.M. 267
SCHODLOK, M. 171
SCHOEFFLER, B. 79
SCHOFIELD, J.T. 249, 251
SCHOLER, M. 215, 222
SCHOLGER, R. 85, 101, 104
SCHOLL, D. 118
SCHOLL, D.W. 117, 118
SCHOLL, H. 246
SCHOLTEN, F. 135, 136
SCHÖNEMANN, A. 242
SCHÖNENBERG, F. 255
SCHOTT, B. 70
SCHOTT, J.J. 107
SCHRAGE, J.M. 191
SCHRECKENBERGER, B. 115
SCHREIBER, R. 221
SCHREIBER, U. 94, 134, 135
SCHREINER, B. 238
SCHREMS, O. 194, 195, 204-206, 208
SCHRIMPF, W. 259
SCHRÖDER, F. 233, 280
SCHRÖDER, M. 171
SCHRÖDER, W. 177
SCHROEDER, M. 171
SCHRÖER, A. 240, 241
SCHRÖTER, J. 201
SCHRUM, C. 168, 181, 198
SCHUBERT, G. 68, 237
SCHUELLER, L. 192
SCHUEPBACH, E. 177, 231
SCHUEPP, P.H. 175
SCHUH, G. 187
SCHUH, H. 133, 135
SCHUHLE, U. 213
SCHUHMACHER, P. 150
SCHULIN, R. 147
SCHULTE, P. 233
SCHULTZ, K. 129
SCHULZ, B. 247
SCHULZ, G. 107
SCHULZ, J. 146, 182
SCHULZ, J.-P. 146
SCHULZ-SCHÖLLHAMMER, K. 231
SCHULZE, A. 80, 83
SCHULZE, E.-D. 177
SCHULZE, K.C. 110
SCHUMANN, U. 232, 233
SCHÜRCH, M. 141
SCHUSTER, K. 80, 83
SCHUSTER, P. 237
SCHUSTER, S. 169
SCHÜTH, C. 150
SCHUTZ, B.E. 128
SCHWAAB, G. 209
SCHWAB, A.P. 150
SCHWAHN, W. 122
SCHWARTZ, B.E. 234
SCHWARTZ, S. 220
SCHWARZ, K.P. 130
SCHWARZ, U. 256, 257
SCHWARZ, W. 237
SCHWARZE, H. 253
SCHWARZENBACH, R. 141
SCHWARZENBACH, R.P. 151
SCHWEGMANN, W. 135
SCHWEHM, G. 244
SCHWEHM, G.H. 241, 242
SCHWEITZER, F. 195
SCHWENN, R. 217, 225
SCHWINGENSCHUH, K. 240
SCIALOM, G. 180
SCIARE, J. 204-206
SCIARETTA, C. 72
SCIENTIFIC PARTY OF ODP LEG 174B 117
SCONCIA, B. 192
SCOTT, J. 168
SCOTT, J.G. 240
SCOTT, R.B. 125
SCOTTI, A. 253
SCOTTI, O. 75, 274
SCOTTO, C. 219
SEAGER, R. 183
SEAKINS, P. 187
SEARLE, R.C. 117
SEBASTINI, C. 279
SEDIFAN SHIPBOARD SCIENTIFIC PARTY 120
SEDLACEK, M. 196, 197, 205, 206
SEDLAZEK, M. 205, 206
SEDNEV, I. 184
SEDO, M.J. 219
SEEBER, G. 94
SEEFELDNER, M. 227
SEEGER, H. 81, 134-136
SEFARA, J. 85
SEGALL, P. 123
SEGSCHNEIDER, J. 124, 183, 191
SEGURET, M. 111
SEIBERT, J. 152, 153
SEIBERT, P. 177
SEIDEL, J.L. 95
SEIDEMANN, R. 66, 67
SEIDOV, D. 189
SEIFF, A. 249
SEILER, K.-P. 151
SEIN, D. 166
SEIN, D.V. 168
SEISEL, S. 195
SEKIDO, M. 135, 136
SELIG, A. 130
SELLSCHOPP, J. 167, 172, 173
SELTEN, F. 165
SELVAGGI, G. 89
SEMBLAT, J.-F. 277

INDEX

SEMKOVA, J.V. 211, 218
SEMPERE TORRES, D. 145, 160, 270
SEMTNER, A. 171
SEMTNER, A.J. 171
SENA, F. 147
SEND, U. 172, 173
SENDLHOFER, G.P. 106
SENECHAL, G. 90
SENESI, S. 179
SENNECHAEL, N. 164, 165
SENNIKOVS, J. 139, 144, 168
SENOS MATIAS, M. 122
SENOS, M.L. 88
SENSKE, D. 238
SENTCHEV, A. 167, 260
SEO, K. 277
SEPE, V. 277, 278
SERANNE, M. 65
SEREBRYANY, A.N. 168, 263, 267
SEREN, S. 103
SERGEEV, B.A. 212
SERGEEV, V. 221, 222
SERGEEV, V.A. 220
SERIANI, G. 91
SERIO, C. 252
SERIO, M. 264, 267
SERMET, R. 147
SERNA, A. 173
SERON, F.J. 91
SEROVA, V.V. 261
SERRA, N. 161
SERRA, R. 150
SERRANO, O. 234, 235
SERRAVALL, R. 266
SERRI, G. 63
SERVA, L. 89, 274
SESETYAN, K. 275
SETARGE, B. 149
SETTO, I. 106
SEU, R. 242, 244
SEUFERT, G. 186, 187
SEUNTJENS, P. 146
SEURONT, L. 253
SEVEROV, D.N. 162
SEVEROVA, V.A. 162
SEXTON, D.M.H. 193
SEYDELL, I. 160
SEZE, G. 184, 192
SHABALIN, N. 77, 78, 100
SHABALIN, N.YA. 176, 271
SHABALOVA, M.V. 190
SHAGIMURATOV, I.I. 130, 134, 219
SHAH, D. 194, 195
SHALLCROSS, D. 197
SHALLCROSS, D.E. 194, 195, 232, 262
SHAMIR, G. 75, 102
SHANNON, P.M. 83
SHAPIRA, A. 65
SHAPIRO, G.I. 167, 168
SHAPIRO, M.A. 179, 180
SHAPIRO, N.B. 167
SHAPIRO, S. 110
SHAPIRO, V. 223
SHAPOSHNIKOV, V.E. 243
SHARGORODSKY, V.D. 134, 135
SHARMA, M. 186
SHAROBIEM, W.M. 229
SHARONOVA, Z.V. 98
SHAW, D.M. 94
SHAW, J. 96, 97, 99, 103, 104
SHCHEPETKIN, A. 266
SHCHERBININA, T.E. 243
SHCHUKIN, G. 192
SHEARER, E. 256
SHEFFIELD, J. 159
SHENG, J. 201, 203
SHEPSON, P.B. 194
SHEREMET, N.A. 164, 165, 172, 173
SHERETOV, E. 245
SHERFETDINOV, L.Z. 156
SHERRETZ, L.A. 234
SHEVELEVA, E. 220
SHI, X.B. 166
SHIAO, C.C. 209
SHIFRIN, K.S. 182
SHIIBA, M. 146
SHILLING, A. 228
SHIMAMOTO, T. 112
SHINDELL, D.T. 230
SHINE, K.P. 230
SHINOHARA, M. 82
SHIRAISHI, H. 245
SHIVER, W. 134
SHIZGAL, B.D. 238
SHLIENOV, A.G. 121
SHNOLL, S.E. 120, 121
SHOLPO, M.E. 113
SHOMALI, Z.-H. 75
SHREIBER, I. 264
SHREVE, R.L. 143
SHRIRA, V. 263
SHRIRA, V.I. 263, 264
SHRIVER, J.F. 202
SHTANIN, A.V. 152
SHUBINA, M.A. 155
SHUCKBURGH, E. 232, 261
SHUKLA, P.K. 223, 263
SHUKOLYUKOV, A. 245
SHUMILIN, YE.N. 149
SHUMILOV, O.I. 65, 189, 228
SHUMILOV, S. 66, 67
SHUMOVA, N.A. 144
SHURSHAKOV, V.A. 211, 218
SHURUBKIN, V. 137, 138
SIANI, A.M. 189, 228
SIBECK, D. 221
SIBECK, D.G. 212, 220
SICCARDI, F. 145, 158, 254, 255, 268-270, 279
SIDHER, S.D. 246
SIDI, C. 258
SIDORENKO, G. 137, 138
SIDOROVA, N.N. 109, 110
SIEBERT, J. 207, 227
SIECKMANN, I. 151
SIEDLER, G. 163
SIEGEL, A. 126
SIEGESMUND, S. 87
SIEGMUND, P. 230
SIEGRIST, F. 175
SIEHL, A. 66, 67
SIGISMONDI, S. 155
SIGMUNDSSON, F. 123
SIGNORELLI, S. 95
SIGONA, J. 234
SIGSBEE, K. 217
SIILI, T. 239
SIITARI-KAUPPI, M. 108
SILANTIEV, S.A. 80
SILBERGLEIT, V.M. 218
SILENY, J. 70, 91
SILENZI, S. 122
SILIN, I.V. 212
SILLI, V. 187
SILVA DIAS, M.A.F. 254
SILVA, E.D. 204
SILVA, P. 267
SILVER, P.G. 82, 87
SILVESTRI, S. 268, 279
SILVESTRIN, P. 129
SIMAKIN, A.G. 95
SIMEK, J. 136, 137
SIMEONI, U. 279
SIMEONIDIS, P. 187
SIMEONOV, V. 261
SIMINI, M. 278
SIMMER, C. 184, 185
SIMMONDS, P. 195
SIMNETT, G. 223
SIMON, J.L. 77
SIMON, L. 151
SIMON, P. 208, 226, 233, 262
SIMON, P.C. 228
SIMON, V. 186
SIMON, W. 141
SIMONELLI, A.L. 275
SIMONNOT, M.O. 149
SIMONS, F. 69
SIMONS, W. 70
SIMONS, W.J.F. 123
SIMONSEN, K. 162, 170
SIMPKIN, P. 90
SIMPSON, F. 114
SIMPSON, J. 167
SIMPSON, R.W. 89
SIMS, M.R. 244
SIMUNEK, J. 222
SINCLAIR, A. 135
SINENKO, L. 133
SINGER, A. 277
SINGER, H. 212, 220
SINGER, W. 207, 210, 231
SINGH, S. 88
SINGH, S.C. 117, 118
SINGH, S.K. 75
SINGH, V.K. 97
SINISCALCHI, A. 114
SINNHUBER, B.-M. 227
SIR, M. 65, 66
SIRANGELO, B. 271
SIROCKO, F. 198
SIRVEN, J. 164
SISTLA, G. 230
SITNOV, M.I. 216
SITTE, B. 256
SIVAN, J.-P. 248
SIVCIC, M. 64
SIZOVA, L. 209
SJÖBERG, L.E. 131
SKAARUP, N. 116
SKALSKY, A. 220, 221, 240, 241
SKALSKY, A.A. 220-222
SKAR, T. 74
SKARYATIN, V.D. 276
SKAUGEN, T. 268
SKEET, D.R. 239
SKIBA, Y.N. 259
SKIRTA, A.YU. 167
SKJELVAN, I. 161, 170
SKLYAROV, V.E. 168, 169, 171
SKOGSEID, J. 116
SKOLOTNEV, S. 117
SKOULIKIDIS, N.TH. 144, 270
SKOURAS, E. 150
SLACZKA, A. 85
SLADE, M.A. 251
SLANCOVA, A. 82
SLEDZINSKI, J. 136-138
SLEEMAN, R. 85, 86
SLEEP, N. 77, 78
SLEEWAEGEN, J.-M. 134
SLEJKO, D. 65
SLEMR, F. 233
SLEMR, J. 233
SLEPAK, Z. 103, 147
SLIAUPA, S. 73
SLINGO, J. 191, 231
SLINGO, J.M. 188, 190-192
SLIVKA, M. 220
SLOAN, W. 152
SLOAN, W.T. 144
SLOOTWEG, P. 117
SLUNGA, R. 274
SLUNYAEV, A. 263
SMALL, J. 168, 263
SMAOUI, H. 260
SMEDSTAD, O.M. 202
SMEKALOVA, T. 103
SMETHURST, M.T. 98
SMETS, R. 221, 222
SMIDTS, O.F. 141
SMILAUER, J. 209, 218, 219, 222
SMILDE, P. 105
SMILDE, P.L. 105, 106
SMILJANIC, N. 105, 106, 112, 114
SMIRNOV, A.P. 120, 121
SMIRNOV, J. 78, 79
SMIRNOV, N.K. 264
SMIRNOV, V.N. 221, 222
SMIRNOVA, YU.G. 193
SMIT, H.G.J. 231
SMITH, A. 81
SMITH, A.L. 95, 278
SMITH, A.M. 210
SMITH, B. 102
SMITH, D.E. 134, 237, 249
SMITH, D.K. 117
SMITH, E.J. 213

SMITH, G.R. 135
SMITH, J.A. 200
SMITH, J.M. 170
SMITH, K.E. 148
SMITH, L.A. 204, 252, 256, 257, 264
SMITH, N. 163
SMITH, P. 249-251
SMITH, P.H. 239, 249, 250
SMITH, P.N. 218
SMITH, S.A. 184
SMITH, S.E. 239
SMITH, T.M. 190
SMITHER, C. 71, 122
SMRIGLIO, G. 199
SMUSHLYAEV, S. 218
SMYTHE, W. 237
SMYTHE, W.D. 237
SNEEUW, N. 127, 130
SNEGIREV, A. 92
SNEZHKIN, E. 265
SNISHKO, V.D. 112
SNOW, M. 213
SNOW, R.W. 135
SNYDER, C. 179, 181
SOARES DE CARVALHO, G. 122
SOARES, P.M.M. 177, 179
SOBCHAKOV, L.A. 216
SOBOLEV, R.N. 92
SOBOLEV, S. 87
SOBOLEV, S.V. 79, 82
SOBOLEV, YA.P. 267
SOBRINO, J.A. 107
SODERBLOM, L. 249, 250
SÖDERKVIST, J. 170
SÖDING, A. 213
SOEDING, A. 214
SOEGAARD, H. 154, 174, 176, 177
SOFFEL, H. 82
SOFIANOS, S. 161
SOFKO, G. 217
SOGAARD, H. 154
SOHL, F. 250
SOHLEID, P. 100
SOKOLOV, S.D. 80
SOKOLOV, V.YU. 272, 274, 276
SOKOLOVA, YU.F. 77, 78
SOKOLOVSKIY, M. 266
SOKOV, A.V. 161, 162
SOL, G. 209
SOLAR, G.S. 111
SOLARI, P. 158
SOLARIC, M. 136
SOLARINO, S. 64
SOLDATI, G. 104
SOLDATI, M. 279
SOLER, J.M. 111
SOLER, M.R. 173, 175, 177, 257
SOLHEIM, F.S. 129
SOLHEIM, L.P. 69, 82
SOLIDORO, C. 172, 260
SOLNTSEV, R.N. 210
SOLOGASHVILI, D. 97
SOLOMON, R. 202
SOLOMON, S. 193
SOLOMON, S.C. 249
SOLOVIEV, A. 77
SOLOVIEV, V. 118
SOLOVJEVA, T.V. 210
SOLYMAR, M. 108
SOMERVILLE, R.C.J. 184
SOMLETTE, L. 158
SOMMER, H. 143
SOMMERIA, J. 248, 265
SOMOV, B.V. 223
SONDAG, F. 158
SONG, P. 211, 220
SONNLEITNER, M. 147
SOPHOCLEOUS, M.A. 152
SORENSEN, J.H. 177
SORENSEN, S.-A. 278
SORGE, S. 244
SORGENTE, M. 134
SORIANO, C. 94
SORNETTE, D. 255
SOROKHTIN, O.G. 238
SOROKIN, A. 233
SOROKIN, A.E. 254
SORRISO-VALVO, L. 215
SORRISO-VALVO, M. 270, 271
SORTINO, F. 94, 95
SOSPEDRA, J. 168
SOTAK, J. 85
SOTIN, C. 69
SOTO, J.I. 70, 120
SOUDARIN, L. 124, 128
SOUF ELJIL, R. 207
SOULHAC, L. 262
SOUPIOS, P. 78, 79
SOUPRAYEN, C. 207, 232, 258, 262
SOURIAU, A. 64, 69
SOUSA OLIVEIRA, C. 276
SOUSA, M.L. 276
SOUVANLASY, V. 234, 235
SOUVERMEZOGLOU, E. 169
SOUZA, F.A.O. 252
SOVIC, I. 274
SPADA, G. 72
SPADARO, D. 214, 223, 224
SPAHR, T. 246
SPAIN, T.G. 195
SPAKMAN, W. 63, 64, 66, 67, 69, 70
SPALL, S. 260
SPALLA, P. 219
SPALLAROSSA, D. 64, 79, 82
SPAMPINATO, S. 92
SPANG, R. 184, 208
SPANNE, P. 108
SPANO, M. 77
SPATARO, W. 271
SPATHARAS, V. 104
SPATZ, C. 198
SPECHT, C. 136, 137
SPEER, K. 166
SPEER, K.G. 166
SPEICH, S. 191
SPELLA, M. 101
SPENCE, G. 118
SPENCE, G.D. 117, 118
SPENCER, P. 76
SPERANZA, F. 63, 101
SPERBER, K.R. 191
SPERBER, P. 135
SPERL, C. 148
SPERNER, B. 63, 64, 76, 85
SPETH, P. 188, 191, 204, 205
SPICAK, A. 82, 105, 106
SPICHTINGER-RAKOWSKY, N. 228
SPIEGEL, E.A. 265
SPIEGELBERG, H. 108
SPIERS, C.J. 108
SPIESS, V. 120
SPIETZ, P. 194, 195
SPINDLER, G. 176
SPINDLER, S. 80
SPINHIRNE, J. 184
SPISIAK, J. 85
SPITTLER, M. 187
SPITZER, E. 235
SPITZER, H.-J. 174
SPOHN, T. 236, 241, 250
SPOSATO, A. 89
SPREITER, J.R. 215
SPRINGER, A. 147
SPRINGER, T. 124, 133, 134
SPRINGER, T.A. 124
SPUDIS, P.D. 245, 246
SPULSI, G. 267
SRAMA, R. 244
SRIVASTAVA, K. 240, 241
SRODA, P. 83, 84
SSN SEISMIC MONITORING WORKING GROUP 89
ST. CYR, C. 223
STADNITSKAYA, A. 119
STAEHELIN, J. 228
STAGI, L. 145
STAHARA, S.S. 215
STAJNER, I. 203, 208
STAMATIOU, N. 211
STAMM, C. 147
STAMPFLI, G.M. 63, 84
STANCHEVICI, B. 106
STANCHITS, S. 108
STANDISH, E.M. 236, 249
STANDISH, R.A. 236, 249
STANGL, G. 136, 137
STANICA, M. 114
STANIFORTH, A. 264
STANISAWSKA, I. 219, 220
STANJEK, H. 148
STANWAY, D. 254
STANWAY, J.D. 192
STAQUET, C. 257-259, 263
STARK, D. 169
STAROSTENKO, V.I. 66, 73, 84
STARR, D. 189
STASENKO, V. 192
STASIEWICZ, K. 216, 223
STAUBES, R. 204, 205
STAUDACHER, T. 278
STAUDACHER, TH. 95
STAUDT, M. 186, 187
STAVENHAGEN, A.U. 115
STAVRAKAKIS, G. 272, 278
STCYR, C. 225
STEACY, S. 252
STEBEL, K. 207, 208
STEELE, M. 170
STEEN, A. 227
STEENHUIS, T.S. 147, 153
STEER, D. 86, 87
STEFANICKI, G. 191
STEFANSSON, R. 78, 272
STEFANUTTI, L. 228
STEGNER, A. 265, 266
STEIDL, J. 141, 155, 156
STEIL, B. 226
STEIN, B. 228
STEIN, J. 258, 268
STEIN, M. 98
STEIN, R. 261
STEIN, R.S. 89, 275
STEINBACH, V. 69, 236
STEINBERG, D.K. 163
STEINBERGER, B. 69, 72, 77
STEINBRECHER, R. 187
STEINER, A. 129
STEINER, N. 169
STELLING, G.S. 270
STELTER, G. 162
STEMBERK, J. 271
STEMMANN, L. 167
STENCHIKOV, G. 202
STENCHIKOV, G.L. 183
STENDEL, M. 181, 192, 193
STENSRUD, D.J. 256
STENUM, B. 265
STEPANIAN, Z. 273
STEPANOV, A.E. 209
STEPANOV, V. 221
STEPANOV, V.A. 221
STEPANOVA, I.E. 66
STEPANYANTS, YU.A. 169
STEPHANOU, E. 187
STEPHANOU, E.G. 199, 204, 205
STEPHEN, A.V. 256
STEPHENS, D. 249
STEPHENSON, D.B. 183, 192, 226, 227
STEPHENSON, R.A. 73
STEPNIK, B. 241
STERL, A. 171
STETIAROVA, J. 218
STEVENS, C. 81
STEVENSON, D. 233
STEVENSON, D.S. 197, 198, 230, 233
STEWART, D. 194, 195
STEWART, I. 275
STEWART, M. 108
STHOL, A. 226, 227
STIANSEN, J.E. 257
STIEVENARD, M. 189
STILLER, M. 83, 84, 86, 87
STIRLING, J.R. 259
STIROS, S.C. 122, 123
STÖBENER, D. 196, 197, 205, 206
STOCCHINO, C. 123
STOCKDALE, T. 124, 183, 191
STOCKER, T.F. 161, 162, 165

INDEX

STOCKHAUSEN, H. 99
STÖCKHERT, B. 81
STOCKMAN, H.W. 109
STOECKEL, M.E. 157
STOENS, A. 260
STOHL, A. 231
STOKER, C. 250
STOLL, J.B. 112, 114
STOLLEY, M. 162
STONE, L. 256
STONE, R.; 233
STONE, R.G. 213
STONER, J. 98
STOPIN, A. 108
STORELVMO, L. 108
STOREY, J. 217
STORM VAN LEEUWEN, E. 150
STORTI, G. 268
STORTINI, M. 269
STORZ, W. 108
STOUFFER, R.J. 183
STOUT, Q.F. 211, 213, 240
STOWASSER, M. 227
STRACHAN, L. 225
STRADA, L. 199
STRAKHOV, A.V. 66, 105
STRAKHOV, V.N. 66, 105
STRAMONDO, S. 89
STRANGEWAY, R. 217
STRASS, V.H. 171
STRATFORD, K. 198
STRAUSS, B. 255
STRAZZULLA, G. 242, 243
STRECK, M.J. 95
STRECKER, M. 257, 275
STRECKER, M.R. 275, 276
STREIT, R. 272
STRELEC-MAHOVIC, N. 179
STROEV, P.A. 70, 72
STRÖM, J. 233
STROMEYER, D. 104, 105
STROMME, A. 211
STRUGLIA, M.V. 179, 201, 265
STRUNIN, M.A. 175
STRYKOWSKI, G. 66, 67, 105
STRZYSZCZ, Z. 101
STUBBE, P. 215, 216
STÜBEN, D. 200
STUCCHI, M. 64, 65, 90, 274
STÜDEMANN, O. 177, 187, 188
STUEMPEL, H. 103
STUHLMANN, R. 185
STUHNE, G.R. 265
STULC, P. 65, 66
STÜMPEL, H. 103
STUMPTNER, W. 238, 239
STURGES, W.O. 195
STURGES, W.T. 194, 195
STURM, M. 101
STURNIOLO, O. 184
STUTZ, J. 195, 197, 198
STUTZER, S. 166, 169
SUAREZ DEL RIO, L.M. 109
SUAREZ, M. 202
SUAREZ, M.J. 146
SUAREZ, N. 99
SUBBOTINA, M.M. 168
SUBKLEW, G. 150
SUC, J.-P. 189
SUCHARSKI, R. 250
SUCHARSKI, T. 250
SUCHY, J. 271
SUCHY, V. 73
SUDICKY, E. 139
SUE, C. 79
SUETNOVA, E. 86, 111
SUGIER, J. 194, 196, 197
SUHADOLC, P. 64, 65, 75, 277
SUHRE, K. 231
SUKHORADA, A.V. 96, 97
SUKHORUKOV, A.I. 215
SUKHORUKOVA, G.V. 214
SULEIMAN, A. 275
SULEM, P.L. 215
SULLIVAN, R. 237, 251
SULLIVAN, R.J. 237
SULPIZIO, R. 278
SÜLTENFUSS, J. 161
SULZER, M.P. 211
SUMMANEN, T. 213, 214
SUMMERFIELD, M. 75
SUN, W. 131
SUN, Z.L. 263
SUNDBY, B. 199
SÜNDERMANN, J. 132, 165
SÜNKEL, H. 127
SUNNENBERG, G. 194
SUO, Y. 220
SUPPAN, P. 197, 198
SURKOV, YU. 245
SURUGUE, M. 158
SUSAGNA, T. 276
SUSINI, C. 280
SÜSS, P. 73
SUSSKIND, J. 189
SUTISNA, S. 123
SUTTON, R.T. 165, 190, 191
SUTYRIN, G.G. 265
SUURSAAR, Ü. 168
SVALOVA, V. 78, 79
SVALOVA, V.B. 73, 76
SVANCARA, J. 85
SVEDHEM, H. 244
SVENDSEN, H. 257
SVENSMARK, H. 225
SVENSSON, A. 198
SVITLOV, S. 137, 138
SVOBODA, A. 148
SVOBODA, M. 144
SWANEY, D. 153
SWIDROWSKA, J. 83
SWIERCEWSKA, A. 85
SWIERCZEWSKA, A. 85
SWIFT, J. 170
SWINBANK, R. 208
SWINYARD, B.M. 246-248
SY, A. 162
SYLVANDER, B. 116
SYLVANDER, M. 64
SYMONS, D.T.A. 98
SYNDERGAARD, S. 129
SYRIOPOULOU, D. 151
SZABO, A. 220
SZARKA, L. 107, 112, 113
SZCZAP, F. 185, 254
SZCZESNY, R. 85
SZEGO, K. 240, 241
SZEREMETA, N. 98
SZINELL, CS. 144, 145, 279
SZÖCS, G.M. 209
SZÖCS, H. 209
SZÖCS, H.L. 180
SZOLUCHA, M. 136, 137
SZTOBRYN, M. 200, 201
SZULCZEWSKI, M. 84
SZUNYOGH, I. 181
SZYMANSKI, J.E. 103
SZYMONSKI, M. 136, 137
TABANAKOV, I.V. 212
TABBAGH, A. 102
TABERNER, C. 73
TABERNER, M.J. 155
TABOADA, J.J. 163
TACHER, L. 140
TACHIKAWA, K. 198
TACHIKAWA, Y. 146
TACONET, O. 157
TADDEUCCI, J. 93
TAFFERNER, A. 231, 233, 235
TAGLIAZUCCA, M. 175
TAIEB, M. 99
TAIT, S. 92, 95
TAKACS, L. 202
TAKAHASHI, K. 212, 220
TAKAHASHI, M. 112
TAKAHASHI, N. 82, 115
TAKANA, H. 113
TAKASAO, T. 146
TAKEUCHI, S. 246
TAKUMI, I. 273
TALAGRAND, O. 204, 226, 238, 239, 255
TALAYA, J. 123
TALBI, A. 157
TALBOT, C. 76, 77
TALBOT, C.J. 76
TALIPOVA, T. 167, 168, 263
TALITSKY, V.G. 68
TALKNER, P. 191
TALLARICO, A. 93
TALPSEPP, L. 168
TAMAKI, K. 117
TAMBURELLI, C. 64, 65
TAMMARO, U. 277
TAMPIERI, F. 174, 259, 260
TAMPIERI,, F. 175
TAN, D.G.H. 260
TANAKA, H. 108, 243, 244, 248
TANAKA, K.K. 243, 244
TANAKA, S. 245
TANAKA, Y. 272, 273
TANDA, M.G. 140
TANG, C.L. 125
TANG, J.-C. 82
TANIS, F. 169
TANK, V. 233
TANNER, D.J. 196, 197
TANSLEY, C. 169
TAPIAS, J. 155
TAPLEY, B.D. 124, 127, 128
TAPPONNIER, P. 75
TARASOV, P.E. 65, 66, 189
TARASOV, V. 222, 240, 241
TARBELL, T.D. 224
TARCHI, D. 123
TARDIF, H. 80
TARICCO, C. 225, 245
TARITS, P. 112
TARLING, D. 104
TARRASOV, V. 213
TARTINVILLE, B. 167
TASSONE, A. 86
TATARINOV, V.N. 71, 108
TAUPIER-LETAGE, I. 167
TAUPIN, J.-D. 188, 189
TAURAT, D. 179
TAUXE, L. 98
TAVERA, H. 88
TAYLOR, B. 76
TAYLOR, C.M. 155
TAYLOR, F.W. 225-227, 239
TAYLOR, J. 93
TAYLOR, J.R. 217
TAYLOR, P.K. 181, 182
TAYLOR, S. 181
TCHIJOVA, E. 153
TCHISTOVA, Z.B. 106
TEALAB, A. 81
TEALEB, A.A. 103
TEBBENS, S.F. 119, 255
TEDESCO, D. 93
TEERI, J. 176
TEICHMANN, U. 176
TEISSEYRE, R. 75
TEJEDOR, L.M. 168
TEJEIRO, I. 267
TEL, T. 260
TELES, V. 139
TELESCA, L. 252
TELLAM, J.H. 141
TEMERIN, M. 223
TEMPERVILLE, A. 260
TEN BRUMMELHUIS, P.G.J. 200, 202
TEN, A. 263
TENAP GROUP 86
TENHUNEN, J. 177
TENNANT, K. 130
TENTLER, T. 108
TER VOORDE, M. 73
TERASAWA, T. 222
TERECHTCHENKOV, V.P. 162
TEREKHOVA, O.A. 197, 198, 226, 227
TERESCHENKOV, V.P. 161, 164
TERLIEN, M.T.J. 275
TERMENS, A. 123
TERNAN, J.L. 160
TERNON, J.F. 161
TERRAY, L. 165, 183
TERRY, J. 189

TERTULLIANI, A. 274
TERZIJSKI, I. 109
TESAURO, M. 89
TESCARO, N. 268
TESI, G. 179
TESOURO, M. 179
TESSARI, U. 279
TESTUT, L. 127
TETT, S.F.B. 193
TETZLAFF, G. 174, 175
TEUBEL, A. 124, 135, 219
TEUTSCH, G. 139, 149
TEVES-COSTA, P. 109, 110, 276
TEVISSEN, E. 109, 111
TEYSSEDRE, H. 226
THAMAE, L. 153
THEILEN, FR. 267
THEISS, D. 176
THEMIER, F. 109
THEOCHARIS, A. 166, 172
THEODOULIDIS, N. 277
THEOPOLD, F.A. 184
THERY, C. 202, 234
THEVENET, A. 156
THIBAUD, R. 119
THIBAUT, M. 79, 80
THIELE, M. 143
THIELE, P. 150
THIELEN, J. 157
THIEMANN, H. 209
THIERRY, V. 166
THINON, I. 116
THIO, H.K. 69, 88
THIROT, J.L. 115, 117
THMOAS, N. 250
THOMA, C. 269, 270
THOMA, M. 71
THOMAS, L. 95
THOMAS, M. 132, 169
THOMAS, N. 232, 240, 241, 247, 249-251, 261
THOMAS, N.P.J. 203
THOMAS, P. 237, 238
THOMPSON, B. 213, 225
THOMPSON, K. 194, 195, 250
THOMPSON, K.R. 201
THOMPSON, L.A. 125, 126
THOMPSON, R. 96, 97
THOMPSON, W.T. 224
THOMPSON,K. 250
THOMSEN, D. 103
THOMSON, S.N. 81
THONY, J.L. 157, 158
THORKILDSEN, F. 171
THORNCROFT, C. 180, 188, 189
THORNCROFT, C.D. 188, 190
THORNTON, S.R. 127
THOROLFSSON, A. 210
THORPE, A.J. 179-181
THORSTEINSSON, S. 203
THOUMIEUX, F. 174
THOUVENOT, F. 79
THOUVENY, N. 99, 100
THOUZEAU, G. 260
THOVERT, J.-F. 108, 112, 139
THRANE, E.V. 209
THUBURN, J. 230
THUNIS, P. 187
THURY, M. 111
THYBO, H. 77, 78, 83, 84, 86, 87
THYKIER-NIELSEN, S. 177
TIAMPO, K. 94
TIAMPO, K.F. 94
TIBALDI, S. 191, 268, 269
TIBERIUS, C. 135
TICOSECT AND COTCOR WORKING GROUPS 115
TIE, X.X. 225
TIKOFF, B. 111
TILLARD, D. 109
TILLMAN, J.E. 249
TIMASHEV, S.F. 207
TIMM, F. 112
TIMMEN, L. 130, 200, 201
TIMMER, J. 256
TIMMERMAN, A. 139, 147
TIMMERMANN, R. 171
TIMMRECK, C. 208, 231
TIMOKHOV, L. 169, 171
TINARELLI, G. 191
TINIVELLA, U. 118
TINTI, S. 129, 267, 268
TIPPKE, J. 178
TISCHNER, T. 141
TITISHOV, K. 265
TITOV, D. 249
TITOV, D.V. 249
TITOV, O. 133
TITOV, V.B. 167
TITOVA, E. 218
TITTGEMEYER, M. 87
TITZ, H. 134
TOBIAS, A. 129
TODD, M.C. 155
TODINI, E. 140, 141, 152, 268
TODLING, R. 203
TODMAN, S. 139
TOEWS, D. 152
TOKARSKI, A.K. 84, 85
TOKSÖZ, N. 81
TOKUNAGA, A. 239
TOLEDO MACHADO, L.A. 254
TOMASI, P. 134, 135
TOMASIN, A. 173, 191, 201
TOMASINI, M. 265
TOMASKO, M. 249
TOMASKO, M.G. 249
TOMCZAK, M. 243
TOMECKA-SUCHON, S. 104, 110
TOMEK, C. 84, 85
TOMIDA, N. 108
TOMIDE, N. 113
TOMMASI, E. 248
TOMMASINI, S. 95
TOMOV, B.T. 211, 218
TOMPKINS, A.M. 192, 239
TONDI, E. 89
TONELLI, G. 279
TONTI, G. 129
TOOLE, J.M. 161
TOOR, P.C. 129
TOR WORKING GROUP 84
TORELLI, L. 87, 114
TORGERSEN, J. 148
TORKAR, K. 222
TORNE, M. 70, 73
TOROCZKAI, X. 260
TORRENCE, M. 122
TORRENCE, M.H. 124, 134
TORRENTE, M.M. 74
TORRES, L. 186
TORSON, J. 250
TORTA, J.M. 106
TOSCA, C. 157
TOSI, E. 191, 192, 201
TOSI, P. 274, 278
TOSITTI, L. 226, 227
TOTH, E. 146
TOTH, T. 90
TOTH, Z. 179, 181, 203, 204, 255
TOTSCHE, K.U. 140, 149
TOUBLANC, D. 239, 240
TOUCHARD, G. 109
TOUDAL, L. 170
TOURNOUD, M.G. 253
TOURPALI, K. 228, 230
TOZZA, J.-R. 174
TRÄBING, K. 156
TRACTON, M.S. 203
TRAHER, F. 280
TRAKHTENGERTS, V. 216
TRAKHTENGERTS, V.Y. 216, 218, 223
TRAKHTENGERTS, V.YU. 216, 254
TRAMPERT, J. 69
TRANOS, M.D. 80
TRATTNER, K.J. 215
TRAUTH, M.H. 257, 275, 276
TRAUTHAN, F. 249, 251
TRAUTMANN, T. 186
TRAVERSI, R. 171
TRAVI, Y. 154
TREGUIER, A.M. 165-167
TRESSOLS, F. 113
TRETYAK, K. 137, 138
TREUMANN, R. 223
TREUSOV, A.V. 87
TREVISAN, A. 204
TRIANTAFYLLIDIS, P. 277
TRIC, E. 68
TRICART, P. 79
TRICIO, V. 108, 173
TRICKL, T. 231
TRIER, S. 181
TRIESCHMANN, O. 227
TRIFONOV, V.G. 274
TRIGILA, R. 93, 94
TRIGO, I.F. 145, 179
TRIGO, R.M. 189
TRILLA, J. 142
TRILLING, D.E. 248
TRIMBY, P. 117
TRINI CASTELLI, S. 174
TRIQUE, M. 112
TRISKA, P. 220-222
TRISKOVA, L. 209, 219
TRITSCHLER, A. 151
TROFIMOV, V.A. 271
TROISE, C. 92-94, 277
TROISI, A. 93
TROITSKAIA, E.V. 225
TROLARD, F. 151
TROMBETTI, F. 175
TROMP, J. 69, 91
TROTIGNON, J.G. 221
TROUDE, F. 177
TROUFLEAU, D. 154
TROVA, A. 110
TROVATORE, E. 268
TRUFFERT, C. 79, 80
TRUHLIK, V. 209, 219
TRYGGVASON, A. 92
TRZASKA, S. 188, 191
TSAI, L.C. 209
TSAI, W.-P. 126
TSAKIRI, M. 135
TSALAS, M. 222
TSAPANOS, T.M. 271, 272
TSAREV, V.I. 135
TSCHERNING, C.C. 131
TSCHUCK, P. 191, 192
TSELIOUDIS, G. 228
TSIMPLIS, M.N. 173
TSIOURI, I. 197, 198
TSITVERBLIT, N. 259
TSOKAS, G. 78, 79
TSONIS, A.A. 257
TSURU, T. 71
TSURUTANI, B.T. 213
TSVANG, L.R. 175
TSVETKOV, YU.P. 106, 107
TSYMBAL, A.M. 210
TTZ WORKING GROUP 83
TU, C.-Y. 224
TUBINO, M. 174
TUCHOLKA, P. 100, 107
TUCKERMANN, M. 194
TUDURI, E. 268
TÜG, H. 205, 206
TUGAROVA, M.A. 147
TUGROVA, M.A. 147
TULELLI, A. 255
TULET, P. 178
TULEYA, R.E. 255
TULIN, M.P. 263, 264
TULIPANO, L. 142
TULUNAY, Y. 219
TUMBARE, M.J. 153
TUNON, J. 142
TUOVINEN, J.-P. 176, 177
TUR, A.V. 223
TURBERG, P. 140
TURCHETTO, M.M. 199
TURCOTTE, D.L. 77, 237, 252, 255, 257
TURCOTTE, M.-F. 234, 235
TURKEVICH, A. 249
TURKO, N. 117
TURNER, G. 96
TURNER, J. 170, 234, 235

INDEX

TURNER, S.P. 95
TURON, E. 94
TURON, F. 94
TURPIN, L. 190
TURRELL, W.R. 165
TURRONI, E. 203
TURUNEN, T. 216, 230
TUSSEAU, M.H. 198
TVERBERG, V. 257
TWICKEN, J.D. 240
TYAPKIN, K.F. 72
TYCHENSKY, A. 125
TYCHON, B. 141
TYLER, R.H. 126
TYLER, S.W. 147
TYRNOV, F. 72
TYRNOV, O.F. 209, 210, 216, 219
TYRNOV, P.F. 219
TYUPKIN, YU. 273
TZANIS, A. 114, 272, 277
TZIAVOS, I.N. 131
UDIAS, A. 63, 88
UDISTI, R. 171
UENZELMANN-NEBEN, G. 120
UFIMTSEV, G.F. 75
UGALDE, A. 277
UHLENBROOK, S. 152, 154
UHLMAN, J. 235
UIJLENHOET, R. 145
UITTENBOGAARD, R.E. 167
UKITA, J. 169
ULAMEC, S. 241, 242
ULBRICH, U. 155, 165, 193
ULLALAND, S. 212, 217
ULYSSES COMET WATCH 213
UNDERWOOD, M.J. 217
UNNIKRISHNA, P.V. 148
UNOLD, W. 194
UNTERNEHR, P. 76
UNZOG, W. 85
UOTILA, J. 171
UPHAM, C.A. 129
URAI, J.L. 107, 111-113
URANIA 19/97 CRUISE PARTY 65
URBAN, J. 209
URBAT, M. 96, 97
URQUHART, A. 220
URQUIZU, M. 92, 257
URRUTIA, J. 99
URSEIS RESEARCH GROUP 86, 87
URUSKI, C. 118
USHAKOV, S.A. 238
USHAKOVA, L.A. 238
USUNOFF, E. 142
UTKIN, I.V. 149
UTKIN, K.B. 259
UTNES, T. 169, 234, 235
UVCS TEAM 224
UVO BERTACCHI, C. 144
VACARESSE, A. 211, 212
VACCARI, F. 64, 271
VACCARO, L. 189
VACHAUD, G. 158
VACHER, P. 68, 69
VADILLO, O. 77
VADON, H. 123
VAGGELLI, G. 95
VAGIN, S.A. 113
VAGINA, L.I. 212
VALCHUK, T.E. 215
VALCKE, S. 183
VALDES, P.J. 155, 193
VALDETTARO, L. 257
VALENSISE, G. 75, 90, 274
VALENTE, M.A. 258
VALENTIN, J.C. 234
VALENTINI, G. 276
VALENTINI, R. 176, 186
VALENTINOTTI, F. 201
VALERO, H.P. 90
VALERO-GARCES, B. 159
VALES, D. 88
VALES, N. 237
VALETT, H.M. 148
VALETTE, B. 236
VALINHAS, M.J. 280
VALLEJO, R. 159
VALLEJO, V.R. 159
VALLIANATOS, F. 252, 272
VALLIS, G.K. 161, 266
VALPREDA, E. 122
VAN AST, J.A. 153
VAN ATTA, C.W. 257
VAN BAELEN, J. 231
VAN BALEN, R. 74
VAN BALEN, R.T. 73, 74
VAN BEEK, L.P.H. 270, 271
VAN BUIJSEN, H.J.J. 150
VAN CALSTEREN, P. 95
VAN DAM, T. 71, 122, 128
VAN DE GRIEND, A.A. 280
VAN DE KONIJNENBERG, J.A. 265
VAN DEN BERG, A.P.H. 63
VAN DEN BERG, A. 236
VAN DEN BERG, A.P. 68, 92
VAN DEN BERGH, H. 261
VAN DEN BOOGAARD, H.F.P. 200
VAN DEN BROEK, M.M.P. 228
VAN DEN DRIESSCHE, J. 113
VAN DER BEEK, P. 75
VAN DER HEIDE, E.J. 67
VAN DER HILST, R. 68, 69
VAN DER LINDEN, R.A.M. 213
VAN DER MAREL, H. 134
VAN DER MEER, R. 73, 74, 78
VAN DER MEULEN, M.J. 63, 64
VAN DER PLICHT, J. 189
VAN DER SCHRIER, G. 162
VAN DER VAART, P.C. 191
VAN DER VEEREN, R. 153
VAN DER ZAAG, P. 153
VAN DER ZEE, W. 112, 113
VAN DEURSEN, W.P.A. 153
VAN DINGENEN, R. 187
VAN DISHOECK, E. 248
VAN DORPE, F. 158
VAN DRIEL-GESZTELYI, L. 225
VAN DUIN, C.A. 263
VAN ECK, T. 85, 86
VAN EIJK, M. 191
VAN EYKEN, A.P. 211
VAN GEEL, B. 189
VAN GORDER, S. 162
VAN GROENESTIJN, J.W. 150
VAN HEIJST, G.J.F. 266
VAN HOOLST, T. 133
VAN HUNEN, J. 68
VAN KESTEREN, W.G.M. 119
VAN LAMMEREN, A. 184
VAN LEEUWEN, P.J. 162
VAN LIERE, H.C. 150
VAN MEERVELD, H.J. 280
VAN MEIR, N. 140
VAN MIERLO, J.M.C. 144
VAN OLDENBORGH, G.J. 190, 191
VAN OORSCHOT, I.H.M. 101
VAN VELTHOVEN, P. 230
VAN VELTHOVEN, P.F.J. 232
VAN WEELE, M. 233
VAN WEES, J.-D. 73, 74
VAN WEES, J.D. 73, 74, 85
VAN WESEMAEL, B. 160
VAN WIJK, J.W. 70
VAN WYK DE VRIES, B. 95
VAN YPERSELE, J.-P. 183
VANBAUCE, C. 192
VANBRABANT, F. 276
VANCLOOSTER, M. 147
VANDAMME, D. 97, 98, 101, 102
VANDEMARK, D. 182
VANDENBUSSCHE, B. 247, 248
VANDENHAUTE, M. 176
VANDER BORGHT, P. 141
VANDERBORGHT, J. 147
VANDERMEIRSCH, F. 266
VANDERSTEEN, K. 139
VANGRIESHEM, A. 189
VANNESTE, J. 263
VANNI DESIDERI, A. 277
VANNINI, G. 277
VANNITSEM, S. 255
VANNOCCI, P. 271
VANNUCCHI, P. 252
VANNUCCI, G. 274, 277
VANYAN, L.L. 108
VARDAVAS, I.M. 225-227, 239
VARGA, P. 104, 120, 121
VARGIN, P. 208, 227
VARINOU, M. 230
VARLEY, C. 213
VARLEY, C.A. 213
VARNAVAS, S.P. 200
VARNET RESEARCH GROUP 83
VARNI, M. 142
VAROTSOS, C. 229, 230, 280
VASAS, S. 72
VASILYEV, A.V. 216
VASSALO PEREIRA, J. 264
VASSARAS, A. 228
VASSEUR, G. 157
VASSILICOS, J.C. 259
VASSILIEV, V.P. 134, 135
VAUCLIN, M. 157, 158
VAUGHAN, G. 231
VAUTARD, R. 191, 203, 204, 255, 260-262
VAUTERIN, P. 122
VAVRYCUK, V. 91
VEERSE, F. 125, 201, 202
VEGA, A. 234, 235
VEIS, G. 81
VEITEL, H. 185
VEITEL, H.J. 230
VEJBAEK, O.V. 83
VELASCO FUENTES, O.U. 266
VELICOGNA, I. 106
VELIKIN, S. 92
VELTRI, P. 215
VENDEVILLE, B. 76
VENDEVILLE, B.C. 76
VENEDIKOV, A. 272
VENEZIANO, D. 252, 253
VENHODOVA, D. 102
VENNERSTROEM, S. 216
VENTURA, R. 214
VENZKE, S. 165
VERBEQUE, V. 169
VERBRUGGE, N. 165
VERDOYA, M. 68
VEREECKEN, H. 141, 253
VERGARA, M. 68
VERGASSOLA, M. 264
VERKLEY, W.T.M. 266
VERLAAN, P.A.J. 144
VERMEERSEN, L.L.A. 70-72, 104
VERMIGLI, S. 171
VERNETA, A.I. 224
VERNON, R. 103
VERON, A. 101, 198
VEROSUB, K.L. 98-101, 103
VERRET, R. 234, 235
VERRON, J. 201, 202, 266
VERRUBBI, V. 122
VERSACE, C. 145, 270
VERSACE, P. 270, 271
VERSIANI, B.R. 269
VERSTRAETE, W. 246
VERTYTSKYJ, O. 137, 138
VESALA, T. 176, 192
VESELOV, M.V. 222
VESPE, F. 72, 124, 134, 136
VESPOLI DE CARVALHO, L.M. 254
VESTED, H.J. 201
VETTORE, A. 277, 278
VEYSSY, F. 199
VIAL, J.C. 224
VIALARD, J. 191
VIALLEFOND, L. 80
VIBERT-CHARBONNEL, P. 100
VICENTE, G.A. 145
VICHI, M. 260
VIDA, R. 90
VIDAL MADJAR, D. 157, 280
VIDAL, F. 277
VIDAL, N. 86, 119
VIDAL, O. 234, 235
VIDAL-MADJAR, D. 280
VIDALI, G. 244

VIDE, J.P.M. 160
VIDOTTI, R.M. 74
VIDUEIRA, D. 269
VIEDMA, O. 159
VIEIRA, R. 127
VIEUX, B. 157
VIEUX, B.E. 153
VIEZZOLI, D. 169
VIGNERESSE, J.L. 76, 79, 111
VIGNES, D. 157, 240
VIGNOLES, G. 109
VIGNOLI, R. 268
VIGNUDELLI, S. 164
VIGNY, C. 81, 134
VIHMA, T. 171
VILA, J. 92, 173
VILA, P. 219
VILA, P.M. 209
VILAR, P. 267
VILARDO, G. 88
VILAS, M. 148
VILKOVA, O. 75
VILLAGARCIA, M.G. 163
VILLAIN, J.-P. 216, 217
VILLAIN, J.P. 217
VILLANI, A.V. 103
VILLANI, P. 268, 269
VILLANUEVA, E.E. 203
VILLARES, P. 125, 130
VILLASENOR, A. 115
VILLEMIN, T. 81, 123
VILLENAVE, E. 194, 195
VILLINGER, H. 118, 119
VILORIA, R. 108
VILORIA, R.E. 173
VILTARD, A. 189
VIMEUX, F. 189
VINCENS, A. 99
VINCENT, D.G. 191
VINCENT, E. 65
VINCENT, M. 200
VINCENT, P. 200
VINCENZI, S. 146
VINCIGUERRA, S. 278
VINE, P. 159
VINNIK, L.P. 87
VINTZILEOS, A. 183
VIPOND, A. 194, 195
VIQALS, E. 142
VIRAMONTE, J.G. 94
VIRIEUX, J. 67, 86
VIRKKULA, A. 187
VIRTANAN, J. 246
VIRTANEN, H. 122
VISBECK, M. 164-166, 171
VISCONTI, G. 228
VISSER, P. 124, 130
VISSERS, M.J.M. 149
VITALE, M. 187
VITART, X. 111
VITERBO, P. 181
VITI, M. 64, 65
VITOUCHKINE, A. 278
VITTORI, E. 89, 122, 274
VITTUARI, L. 123, 129, 277
VIVIER, F. 125, 126
VLAAR, N.J. 68, 69, 92
VLADIMIROV, S.V. 216
VLADIMIROV, Y.V. 168
VLADIMIROVA, G.A. 222
VLAG, P. 99
VLASENKO, T.S. 197, 198
VLASOV, S.N. 253
VLASOV, Y.T. 108, 112, 113
VLASTOU, G. 226
VODOPIVEC, F. 136
VOELKER, A. 98
VOEYKOV, A.I. 229
VOGEL, B. 177
VOGEL, M. 176
VOGEL, T. 150
VOGFJORD, K. 78
VOGT, R. 195
VOGT, T. 155
VOIGHT, B. 93
VOITA, J. 221
VOKROUHLICKY, D 124, 246
VOKROUHLICKY, D. 246
VOLCKAERT, G. 112
VOLKONSKAYA, A. 119
VOLKOV, YU.A. 182
VOLKOV, YU.A. 177
VÖLKSEN, C. 94
VOLOKH, A.A. 197, 198
VOLOKITIN, A.S. 216
VOLOZH, YU. 76
VOLPI, G. 114
VOLTZ, M. 141, 157, 160
VOLZ-THOMAS, A. 196, 197
VOM ENDT, A. 223
VON GLASOW, R. 195
VON HARDENBERG, J. 232, 258, 266
VON HUENE, R. 115, 118
VON HÜNERBEIN, S. 175
VON STEIGER, R. 214
VON STORCH, H. 167
VONDRAK, J. 133
VONG, R.J. 175
VONWINKLE, W. 235
VORONOV, B.F. 167
VÖRÖS, Z. 215
VOS, R.J. 200, 202
VOSS, O. 103
VOSS, R. 161, 183
VOSTROV, E.A. 155
VOUGIOUKALAKIS, G. 277, 278
VOZAR, J. 84
VOZAROVA, A. 84
VRIEND, S.P. 149
VYSKOCIL, P. 136, 137
VYUSHKOVA, T. 208
WACHS, D. 271, 275
WACHSMUTH, M. 194
WADHAMS, P. 170, 171
WAEBER, W. 168
WAGENBACH, D. 194
WAGNER, C.A. 125
WAGNER, F.C. 108
WAGNER, R. 237, 238, 246
WAGNER, T. 184, 195, 227
WÄHLISCH, M. 245
WAHLUND, J.E. 246
WAHR, J. 71
WAHR, J.M. 127, 128
WAINER, I. 161
WAKELIN, S.I. 129
WAKIMOTO, R.M. 179
WALD, L. 107
WALIA, R. 118
WALISER, D.E. 192
WALKER, A.D.M. 217
WALKER, D. 69
WALLANCE, P.J. 116
WALO, J. 137, 138
WALPERSDORF, A. 81, 123
WALTER, M. 169
WALTHAM, D. 73
WALTHER, CH.H.E. 115
WALTON, D. 96
WALZ, V. 163
WALZER, U. 68
WANDISHIN, M. 256
WANG, D. 256
WANG, K. 71
WANG, L. 129
WANG, R. 203
WANG, S. 99, 100
WANG, X. 220
WANG, Y. 225, 233
WANG, Y.M. 124, 130
WANG, Z. 104, 106
WÄNKE, H. 249-251
WARD, R. 147
WARD, W. 250
WARDINSKI, I. 256
WARELL, J. 236
WARN-VARNAS, A. 169, 172, 173
WARNANT, R. 134
WARNCKE, T. 266
WARREN, M.S. 268
WÄSCH, R. 243, 244
WÄSCH, U. 243, 244
WASEDA, A. 118
WASEDA, T. 263, 264
WASILEWSKI, P. 236, 240
WASOWSKI, J. 275, 276
WATANABE, S. 209, 210
WATERS, J.W. 209, 226, 227
WATKINS, M. 124, 134
WATKINS, M.M. 71, 134
WATKINS, N.W. 222
WATSON, A. 161
WATSON, B. 254
WATSON, K. 128
WATSON, S.P. 139
WAUBEN, W.M.F. 225, 232
WAUGH, D.W. 208, 232, 261, 262
WAWRZENITZ, N. 80
WAYNE, R.P. 194, 195
WDOWINSKI, S. 64, 81, 82, 134
WEARD, W. 250
WEATHERLY, G. 161
WEATHERLY, G.L. 168
WEAVER, J.T. 113
WEBB, F. 134
WEBB, F.H. 128, 134
WEBB, M.J. 192
WEBB, S.C. 117
WEBER, G. 129, 134, 136
WEBER, J.E. 263
WEBER, K. 149
WEBER, M. 69, 196, 197, 205, 206, 226, 227
WEBER, R. 133, 134
WEBER, R.O. 175, 191
WEBER, S.L. 190
WEBERS, W. 105, 107
WEBSTER, C.R. 231
WECKMANN, U. 113
WEDEKIND, C. 228
WEDI, N.P. 202
WEERTS, A.H. 110
WEFER, G. 163
WEGEHENKEL, M. 155
WEHDE, H. 169
WEHRENPFENNIG, A. 129
WEHRLE, V. 76
WEI, M. 130
WEICHMAN, P.B. 257
WEICKMANN, K. 132
WEIDINGER, T. 175
WEIGAND, H. 149
WEIJER, W. 162
WEILL, A. 192
WEINBERG, D.M. 118
WEINER, R. 196, 197
WEINGARTNER, R. 269
WEINREBE, W. 115
WEINSTEIN, D. 153
WEINSTOCK, E.M. 231
WEINZETTEL, P. 142
WEIR, A.L. 239
WEISBROD, N. 147
WEISE, A. 94
WEISENSEE, U. 175
WEISHEIMER, A. 256
WEISS, J.B. 259, 266
WEISS, M. 107
WEISS, TH. 87
WEITKAMP, C. 184, 185, 205, 206
WEITZ, C. 245
WELKER, E. 106
WELLE, W. 272, 278
WELLER, R. 204-206
WELLES, J.M. 176
WELLS, N.C. 166
WEMAERE, I. 141
WENDROTH, O. 148
WENDT, J. 77
WENG, PH. 146
WENZEL, F. 64, 85-87
WERNER, T. 96, 97
WERNIK, A.W. 215
WERNLI, H. 179, 231
WESSEN, K. 148
WEST, B.P. 116
WEST, R. 239
WESTERHAUS, M. 278

INDEX

WESTZTERGOM, V. 112
WESZTERGOM, V. 107
WETZEL, G. 227
WEWEL, F. 135, 136
WHEATER, H.S. 268
WHITAKER, A.C. 152
WHITAKER, B.J. 196, 197
WHITAKER, M. 76
WHITE, D.J. 86
WHITE, E. 113
WHITE, O.R. 225
WHITE, R.S. 117
WHITE, S. 152
WHITE, S.H. 81
WHITE, S.M. 152-154, 269
WHITE, W. 181
WHITE, W.B. 190
WHITEHOUSE, S.G. 238
WHITEWAY, J.A. 208
WHITMARSH, R.B. 116
WHITTAKER, J. 139
WHITTINGTON, R.J. 120
WHYBORN, N. 209
WIBBERENZ, G. 223
WIBBERLEY, C. 113
WICHT, J. 133
WICKERT, B. 178
WICKTOR, F. 196
WIDEMANN, D. 101
WIDEMANN, T. 248
WIDMANN, M. 165
WIECHEN, H. 222
WIECZOREK, J. 83
WIELER, R. 214
WIELGOSZ, P. 134
WIEMER, S. 91, 271, 272
WIENS, B. 234, 235
WIEPRECHT, E. 248
WIEPRECHT, W. 229
WIGGINS, S. 258, 259
WIGNERON, J.-P. 146
WIGNERON, J.P. 157
WIIK, J.E. 223
WIJBRANS, J.R. 81
WIKBERG, P. 141
WIKSTOL, O. 224, 225
WILBER, M. 212
WILD, M. 186
WILDE-PIORKO, M. 84
WILHELM, K. 224, 225
WILHELMS, A. 74
WILHITE, D. 279
WILKEN, B. 212-214, 217, 222, 241, 245
WILKINSON, J. 170
WILKINSON, W. 213
WILKINSON, W.P. 213
WILLE, H. 228
WILLEBRAND, J. 202, 260
WILLEMSEN, E. 234
WILLIAMS, A. 147
WILLIAMS, A.G. 160
WILLIAMS, C. 109, 110
WILLIAMS, D.J. 220, 241
WILLIAMS, I. 247
WILLIAMS, P.J.S. 209, 213, 218
WILLIAMS, R. 235
WILLIAMS, R.G. 166
WILLIAMS, S. 128
WILLIAMS, W. 99
WILLIAMSON, D. 99, 100
WILLIAMSON, J.P. 83, 84
WILLIAMSON, R.G. 124
WILLINGSHOFER, E. 85
WILLMOTT, A.J. 169, 170
WILLSON, C.A. 210
WILLSON, R.F. 225
WILMES, H. 136
WILSKE, B. 187, 188
WILSON, A. 234
WILSON, C.R. 128, 134, 135
WILSON, G. 249
WILSON, G.R. 249
WILSON, L. 95, 117
WIMMER-SCHWEINGRUBER, R.F. 214
WINGHAM, D. 71
WINK, J. 243
WINKLER, A. 64, 99, 151
WINKLER, D. 184
WINTER, TH. 75
WINTER, U. 92
WINTERHALTER, R. 187, 188
WINTERS, K.B. 257, 258
WINTERS, W. 118
WINTERS, W.J. 118
WINZER, W. 126
WIPFLER, E.L. 140
WIRTH, A. 202
WIRTH, M. 228, 280
WIRTH, V. 230-232, 261, 262
WIRTZ, K. 187
WISCOMBE, W. 185
WISCOMBE, W.J. 254, 257
WITASSE, O. 210
WITTEMBERG, R. 239, 247
WITTERNIGG, N. 184
WITTMAN, C. 176
WITTMANN, K. 241
WITTROCK, F. 194, 195
WOBROCK, W. 186
WOCH, J. 213, 216, 217, 241
WODE, CH. 175
WODNICKA, E.B. 223
WOELBERN, I. 84
WOELK, S. 162
WOELZ, S. 103
WOFSKY, S. 177
WOFSY, S. 176
WOFSY, S.C. 231
WOHLENBERG, J. 78
WOHLETZ, K. 95
WOHLGEMUTH, J. 209
WOHLGEMUTH, L. 78
WOHLTMANN, I. 227
WOLDETINSAE, G. 107
WOLF, A. 186, 187
WOLF, D. 71, 122
WOLF, F. 256
WOLF, S. 166
WOLF, U. 237, 238
WOLFF, G. 177
WOLFF, J.-O. 169
WOLKE, R. 229
WOLSKI, A. 136, 137
WONG, T.-F. 109
WONIK, T. 83, 84
WOOD, M. 233
WOODGATE, R. 171
WOODHOUSE, J. 69
WOODS, T. 224
WOODSIDE, J.M. 119
WOODWARD, T.I. 240
WOOLLEN, J. 181
WORMS, J.C. 243, 244
WORTEL, M.J.R. 63, 64, 70
WORTHINGTON, R.M. 231
WÖSTE, L. 204, 205
WOTAWA, G. 177
WRIGHT, D. 113
WRIGHT, G. 155
WRIGHT, I. 115
WROBLEWSKI, A. 201
WRONOWSKI, R. 222
WU, J. 220
WU, P. 71, 172, 198
WU, W.-S. 181
WULFF, A.-M. 110
WUNDERLI, H. 147
WUNDERLIN, H. 147
WUNRAM, C. 233
WURZ, P. 224
WUST, G.H. 271, 275
WÜST, J.C. 200
WÜST, W. 150
WUTTKE, M.W. 250
WUYTACK, K. 103
WYATT, F. 134
WYATT, L.R. 200, 201
WYBRANIEC, S. 83, 84
WYDLER, H. 147, 148
WYLEGALLA, K. 84
WYNS, R. 79
WYPUTTA, U. 189
WYSER, K. 233
WYSS, M. 91, 271, 272
WYZGA, B. 269
XIA, Y. 126
XU, C.-Y. 144
XU, G. 130
XU, H. 144, 170, 190
XU, J.S. 209
XU, K.-M. 188, 192
XU, Z. 202
XUE, M. 256
XUE, Y. 155, 188
YABASHI, S. 273
YAGI, M. 118
YAGOVKINA, S. 226
YAHNIN, A.G. 220
YAKIMOVA, G.A. 219
YAKUBENKO, V.G. 167
YAKUNIN, M.N. 210
YAKUPOV, A.SH. 97
YAKYMCHUK, M. 105
YAKYMCHUK, N. 105
YAKYMCHUK, Y. 105
YAMADA, I. 245
YAMAGATA, T. 266
YAMAMOTO, H. 113
YAMAMOTO, T. 212, 214, 217, 272, 273
YAMASHITA, T. 89
YAMAZAKI, Y.H. 180
YANG, F. 226, 227, 232, 233, 262
YANG, J. 139
YANG, R.K. 82
YANG, S. 96, 97, 103
YANOVSKAYA, T. 75
YANOVSKY, V.V. 223, 253, 254
YAO, Z.S. 91
YARAI, H. 272
YARAS, M.I. 234
YAREMCHUK, M. 201
YASAR, D. 119
YASONOV, P.G. 96, 97
YASONOV, P.P. 98
YASUHARA, M. 149
YEARBY, K.H. 222
YEGOROVA, T.P. 66, 73, 84
YEH, Y.T. 82
YELLAND, M.J. 182
YELLES, A. 102
YELLES, K. 120
YEOMAN, T.K. 209, 217
YERMOLAEV, Y. 220
YERMOLAEV, YU. 217, 220, 221
YERMOLAEV, YU.I. 215, 221, 222
YI, Y. 213
YILMAZTÜRK, A. 69, 70
YING, J. 88
YLIKORPI, T. 244
YLINIEMI, J. 83, 84
YNNERMAN, A. 222
YODER, C.F. 72, 236, 249
YOSHIDA, N. 209, 210
YOSHIDA, S. 112
YOSHINOBU, A. 117
YOU, Z. 135
YOUNG, M.D.B. 146
YOUNG, R.P. 88
YOUNG, W. 134
YOUNG, W.R. 257
YOUNIS, M.T. 159
YU, C.H. 246
YU, J.-Y. 183
YU, T.-T. 70, 82, 94
YU, Y.Q. 128
YU, Z.Y. 109
YUAN, D.N. 236, 249
YUAN, X. 69
YUDAKHIN, F.N. 275
YUDKIN, E.N. 244
YUEN, D. 236
YUEN, D.A. 69, 70, 72, 77, 92, 236, 263
YUKHIMUK, A.K. 212
YUKHIMUK, V.A. 212
YUNG, K.L. 246
YUNOSHEV, L. 133
YURIK, R.YU. 218
YURKOV, A. 273

YUSHKOV, V.P. 204
ZABEK, Z. 137, 138
ZABLE, F. 194, 195
ZABLOTSKIJ, F. 136
ZABLOTSKYJ, F. 137, 138
ZABYSHNYI, A.I. 264
ZACHARIAS, I. 144
ZACHARIAS, I.Z. 270
ZADRO, M. 105
ZAGWODZKI, T. 135
ZAHARIEV, V. 228
ZAHN, A. 230
ZAHRADNIK, J. 91
ZAIKIN, A.N. 120
ZAITLIN, V. 258
ZAITSEV, V.V. 243
ZAITSEVA, S.A. 214, 216
ZAJA, A. 114
ZAKEY, A.S. 229
ZAKHAROV, G. 72
ZAKHAROV, I.G. 219
ZAKHAROV, V.E. 211, 214
ZAKHAROV, V.I. 130, 209
ZAKHEM, U. 86
ZAKRI, T. 158
ZALESNY, V.B. 162
ZALYTSKY, V. 133
ZAMBONELLI, E 93
ZAMMIT, C. 158
ZAMORA, M. 110
ZANCHETTA, G. 278
ZANDER, D. 280
ZANELLA, E. 104
ZANG, A. 108
ZANIS, P. 177, 231
ZAPLETAL, K. 101
ZAPPONE, A. 109, 110
ZARDI, D. 174
ZARKA, P. 241, 242
ZARNOWIECKI, T. 245
ZARRO, D. 225
ZASLAVSKY, Y.M. 253
ZASTENKER, G. 220, 221
ZASTENKER, G.N. 221, 222
ZATMAN, S.A. 133
ZATSEPINA, O.Y. 118
ZAULI SAJANI, S. 260
ZAV'YALOV, D.D. 170
ZAVALA-SANSON, L. 266
ZAVATARELLI, . 260
ZAVATARELLI, M. 172, 198
ZAVIALOV, P. 161, 162
ZAWADZKI, I. 145
ZEBKER, H. 123
ZECHNER, E. 140
ZEGERS, T.E. 99
ZEHE, E. 147
ZEITLER, W. 237, 251
ZEITLIN, V. 266
ZELENOV, V.V. 196
ZELENYI, L. 217, 220, 221
ZELENYI, L.M. 211, 215, 220-222
ZELLAGUI, R. 113
ZELLMER, G. 95
ZELLNER, R. 186, 194
ZELT, C. 74, 116
ZEMAN, A. 136
ZENCHENKO, T.A. 120, 121
ZENGINA, T.J. 276
ZENT, A.P. 238
ZERBINI, S. 63, 64, 128, 129
ZEREFOS, C. 197, 198, 226, 227, 261
ZEREFOS, C.S. 228, 230
ZERGA, A. 279
ZERGENYI, R. 101
ZERGENYI, R.S. 101
ZERNOV, N.N. 220
ZERVAKIS, V. 166
ZETZSCH, C. 196
ZEYEN, H. 85
ZEYER, J. 150
ZHAGARS, Y. 134
ZHANG, K. 131
ZHANG, M.-L. 219
ZHANG, X. 113
ZHANG, Y. 171
ZHAO, Z.YU. 211
ZHARKOV, I.Y. 99
ZHARKOV, V.N. 236, 251
ZHARKOV, V.V. 170
ZHELEV, ZH. 105, 106
ZHENG, Z. 151, 152
ZHONG, W. 208
ZHOU, S. 83, 84, 87
ZHOU, X. 220
ZHOU, Z. 77
ZHOVTONOG, O.I. 155
ZHU, R. 99, 100
ZHU, S.Y. 128
ZHU, Y. 203, 204
ZHURBA, E.V. 192
ZHURBAS, V.M. 168
ZIAKOPOULOS, D. 179
ZIEBIS, W. 200
ZIEGERT, A. 77
ZIEGLER, P.A. 73
ZIEHMANN, C. 257
ZIEMANN, A. 173-175
ZIEREIS, H. 196, 197, 233
ZIERENBERG, R. 99
ZIGLINA, I.N. 248
ZIKRACH, E.K. 209
ZILIOLI, E. 279
ZILITINKEVICH, S. 174
ZILLIOX, L. 158
ZIMMARO, S. 271
ZIMMER, C. 240
ZIMMER, M. 277
ZIMMERMAN, M.E. 111
ZIMMERMAN, W.B. 258
ZIMMERMANN, G. 109
ZIMMERMANN, L. 146
ZININ, L. 220, 222
ZININ, L.V. 221
ZIOMAS, I. 187, 207, 261, 280
ZIPF, E.C. 208, 233
ZIQUING, W. 123
ZITELLINI, N. 87
ZIVCIC, M. 65, 274
ZLATEV, Z. 177, 229
ZOBIN, V. 91
ZOBRIST, J. 151
ZODIATIS, G. 167
ZOETEMEIJER, R. 85
ZÖGER, M. 230
ZOLESI, B. 219, 220
ZÖLLER, G. 273
ZOLLO, A. 89
ZOLLWEG, J.A. 153
ZOLNIKOVA, N. 212
ZOLOTOV, I.G. 182
ZOLTOWSKI, Z. 107
ZONG, J. 256
ZONG, Q. 212, 217, 222
ZONG, Q.-G. 212, 217
ZOOK,H.A. 240
ZORAN, M. 168, 271
ZORIN, YU.A. 81, 87
ZOTH, G. 110
ZOTOV, O.D. 216
ZRAUNIG, C. 149
ZSCHAU, J. 272, 273
ZUAZUA, E. 159
ZUBER, M.T. 237, 249
ZUBOV, V. 226, 227, 232, 233, 262
ZUCCHERETTI, E. 219
ZUCHIEWICZ, W. 85
ZUIDEMA, P. 111
ZUMBERGE, J.F. 134
ZUQUETTE, L.V. 149
ZURBUCHEN, T.H. 214
ZVEREVA, I.M 120, 121
ZVEREVA, I.M. 121
ZVIYAGINTSEV, A.M. 207
ZWALLY, H.J. 170, 249
ZWEIGEL, P. 63
ZWIERS, F. 203
ZYRYANOV, V.N. 266

1999 General Assembly Den Haag, 19 - 23 April

Attend the open EGS Section/IWG Meetings on Wednesday, 22 April, 12.00-14.00, and make your suggestions to the scientific programme. Further information on the EGS Web Site at http://www.copernicus.org/EGS/EGS.html.

Forthcoming Meetings

The following is a list of forthcoming meetings that may be of interest to EGS members. If you are organizing a meeting that should be included in future lists, please send us details including date, title, location and a contact name and address as soon as possible. Inclusion is free.

1998

May 11-15, 1998; **The Jovian System after Galileo, The Saturnian System before Cassini-Huygens**, Nantes, France. Details from: NANTES98, Laboratoire de Geophysique et Planetologie, Faculte des Sciences, 2 rue de la Houssiniere, BP 92208, 44322 Nantes Cedex 3, France; Tel: +33-2-40373187, Fax: +33-2-40374948, E-mail: nantes98@chimie.univ-nantes.fr

May 11-15, 1998; **Symposium on Operational Remote Sensing for Sustainable Development**, Enschede, The Netherlands. Details from: EARSeL Secretariat, Madeleine Godefroy, B-318, 2 avenue Rapp, F-7534-F-Paris Cedex 07, France; Tel: +33-1-45567360, Fax: +33-1-45567361, E-mail: earsel@meteo.fr

May 13-15, 1998; **Advances in Fluid Mechanics (AFM 98)**, Udine, Italy. Details from: P. Doughty-Young, AFM 98, Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton SO4 7AA, United Kindom; Details from: +44-1703-293-223, Fax: +44-1703-292-853, E-mail: paula@wessex.ac.uk

May 16-22, 1998; **Natural and Anthropogenically Induced Hazards**; Acquafredda di Maratea, Italy. Details from: Dr. Josip Hendekovic, European Science Foundation, 1 quai Lezay-Marnesia, 67080 Strasbourg Cedex, France; Tel: +11-388-767135, Fax: +33-388-366987, E-mail: euresco@esf.org, http://www.esf.org/euresco

May 17-22, 1998; **HAZARDS-'98: 7th International Conference on Natural and Man-Made Hazards**, International Society for the Prevention and Mitigation of Natural Hazards; Chania, Crete Island, Greece. Details from: Dr. G.A. Papadopoulos, Institute of Geodynamics, National Observatory of Athens, 11810 Athens, Greece; Tel: +30-1-3462-664, Fax: +30-1-3426-005, E-mail: m.sachp@egelados.gein.noa.gr

May 18-20, 1998; **Joint Meeting of the Geological Association of Cananda, Mineralogical Association of Canada, Association professionelles des Géologues et des Géphysiciens du Québec, Québec Congress Centre, Canada**. Details from: Agathe Morin, Dépt. de Géologie et de Génie Géologique, Université Laval, Pavillon Adrien-Pouliot, Sainte-Foy (Québec) G1K 7P4, Canada; Tel: +1-418-656-2193, Fax: +1-418-656-7339, E-mail: quebec1998@ggl.ulaval.ca; http://www.ggl.ulaval.ca/quebec1998.html

May 18-21, 1998; **5th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes**; Rhodes, Greece. Details from: John Bartzis, NCSR DEMOKRITOS, INTRP/Environmental Research Laboratory, 15310 Aghia Paraskevi Attikis, Greece; Tel: +30-1-652-5004, Fax: +30-1-653-3431, E-mail: 5harmo98@avra.nrcps.ariadne-t.gr, http://milos.nrcps.ariadne-t.gr

May 18-22, 1998; **International Symposium on Oceanic Fronts and Related Phenomena dedicated to the late Prof. Konstantin Fedorov**, St. Petersburg, Russia. Details from: Dr. A. Zatsepin, P.P. Shirshov Inst. of Oceanology, Russian Academy of Sciences, Nakhimovskii pr. 36, 117851 Moscow, Russia, Tel: +7-0995-124-7392, Fax: +7-095-124-5983, E-mail: zatsepin@glas.apc.org; http://www.rc.msu.ru/ocfronts

May 19-23, 1998; **International Coastal Symposium (ICS98)**, Coastal Education & Research Foundation (CERF) & Journal of Coastal Research (JCR), Palm Beach, Florida, USA. Details from: Challis Breithaupt, ICS98 Secretariat, 810 East 10th Street, Lawrence, KS 66044, USA; Tel: +1-785-843-1221, Fax: +1-785-843-1274; E-mail: am&m@allenpress.com or cfinkl@gate.net

May 20-21, 1998; **Response of the Earth's Lithosphere to Extension**, Royal Society, London, United Kingdom. Details from: Dr. R.B. Whitmarsh, Room 786/23, Challenger Seafloor Processes Division, Southampton Oceanography Centre, European Way, Southampton SO14 3ZH, United Kingdom; Tel: +44-1703-596-564, Fax: +44-1703-596-554, E-mail: bob.whitmarsh@soc.soton.ac.uk or rbw@socnet.soc.soton.ac.uk

May 20-22, 1998; **Stability and control of shear flows with strong temperature or density gradients**; Prague, Czech Republic. Details from: Dr. F. Marsik, Inst. of Thermomechnics, Academy of Sciences of the Czech Repulic, Dolejskova 5, 182 00 Praha 8, Czech Republic; E-mail: marsik@bivoj.it.cas.cz

May 22-27, 1998; **Geochemistry of Crustal Fluids: Characterization of Reactive Transport in Natural Systems**, Aghia Pelaghia, Crete, Greece. Details from: Dr. J. Hendekovic, European Science Foundation, 1 quai Lezay-Marnesia, 67080 Strasbourg Cedex, France; Tel: +33-388-767135, Fax: +33-388-366987, E-mail: euresco@esf.org, http://www.esf.org/euresco

May 25-June 5, 1998; **NATO Advanced Study Institute on Energy Conservation through heat transfer enhancement of heat exchangers**, Cesme, Imir, Turkey. Details from: Prof. Dr. Faruk Arinc, Secretary General, ICHMT, Mechanical Engineering Department, Middle East Technical University, 06531 Ankara, Turkey; Fax: +90-312-210-1331, E-mail: arinc@metu.edu.tr, http://ichmt.me.metu.edu.tr/announce/ASI/announce.html

May 26-29, 1998; **AGU Spring Meeting**, Boston, Mass., USA. Details from: AGU, Meetings Dept., 2000 Florida Avenue NW, Washington DC 20009, USA; Tel: +1-202-462-6900, Fax: +1-202-328-0566, E-mail: meetings@kosmos.agu.org, http://www.agu.org

June 1-4, 1998; **The Oceanography Society (TOS) and IOC Meeting on Coastal and Marginal Seas**, UNESCO Headquaters, Paris, France. Details from: Judi Rhodes, TOS, 4052 Timber Ridge Drive, Virginia Beach, VA 23544, USA; Tel: +1-757-464-0131, Fax: +1-757-464-1759, E-mail: rhodesj@exis.net, http://www.tos.org

June 1-5, 1998; **International Symposium on Space Plasma Studies by In-Situ and Remote Measuring**, Space Research Institute Moscow, Russia. Details from: verigin@iki.rssi.ru

June 8-11, 1998; **The Eighth International Workshop on Atmospheric Icing of Structures (IWAIS'98)**, Reykjavik, Iceland. Details from: ITB-Congrex, Skogarhild 18, 101 Reykjavik, Iceland; Tel: +354-562-3300, Fax: +354-562-3345, E-mail: congrex@itb.is, http://www.rarik.is/iwais98/

June 8-11, 1998; **9th Global Warming International Conference, Expo & Executive Workshop**, Hong Kong, China. Details from: Global Warming International Center GWIC, Tel: +1-603-910-1551 or GW9 Conference Registration, SUPCON, PO Box 5275, Woodridge, IL, 60517-0275, USA; Fax: +1-630-910-1561

June 8-12, 1998; **Biotramsport'98, International Symposium on Heat and Mass Transfer in Biological and Medical Engineering**, Kusadasi, Turkey. Details from: Kenneth R. Diller, Biomedical Engineering Program, The University of Texas at Austin, ENS 612 Austin, TX 78712-1084, USA; Tel: +1-512-471-7167, Fax: +1-512-471-0616, E-mail: kdiller@ mail.utexas.edu

June 23 - July 2, 1998; **1998 Cambridge Symposium Workshop on the Physics of Space Plasmas**, Cascais, Portugal. Details from: T. Chang, Center for Theoretical Geo/Cosmo Plasma Physics, MIT Center for Space Research, 77 Massachusetts Ave. 37-271, Cambridge, MA 02139, USA; Tel: +1-617-253-7527, E-mail: tsc@space.mit.edu

June 29 - July 1, 1998; **Sixth International Conference on Precipitation: Predictability of Rainfall at the Various Scales**, Mauna Lani Bay, Kohala Coast, Hawaii. Details from: Prof. Roni Avissar, Department of Environmental Sciences, Rutgers University, New Brunswick, NJ 08903, Tel: +1-908-932-9520, Fax: +1-908-932-1038, E-mail: avissar@gaia.rutgers.edu or Prof. James Smith, Department of Civil Engineering and Operation Research, Princeton University, Princeton, NJ 08544, Tel: +1-609-258-4615, Fax: +1-609-258-2799, E-mail: jsmith@radap.princeton.edu

July 4-11, 1998; **Geological Society of America Penrose Conference: Processes of Crustal Differentiation: Crust-Mantle Interactions**, Verbania, Italy. Details from: T. Rushmer, Dept. of Geology, University of Vermont, Burlington, VT 05405, USA; Tel: +1-802-656-8136, Fax: +1-802-656-0045, E-mail: trushmer@zoo.uvm.edu

July 6-8, 1998; **1st International Conference on Geographical Information Systems in the Next Millennium (GIS98)**, Udine, Italy. Details from: L. Kerr, GIS98 Conference Secretariat, Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton SO40 7AA, United Kingdom; Tel: +44-1703-393-223, Fax: +44-1703-292-853, E-mail: liz@wessex.ac.uk

July 6-10, 1998; **Hydrology in a Changing Environment**, Exeter, United Kingdom. Details from: B. Webb, Dept. of Geography, University of Exeter, Amory Bldg., Rennes Dr., Exeter, Devon EX4 4RJ, United Kingdom; Fax: +44-1392-263-342, E-mail: b.w.webb@exter.ac.uk

July 6-10, 1998; **9th International Symposium on Acoustic Remote Sensing and Associated Techniques of the Atmosphere and Oceans**, Vienna, Austria. Details from: ISARS'98, c/o Institute of Meteorology and Physics, Türkenschanzstr. 18, 1180 Wien, Austria; Fax: +43-1-4705820-60, E-mail: isars@mail.boku.ac.at, http://www.boku.ac.at/imp/isars/isars4.html

July 6-10, 1998; **19th International Laser Radar Conference**, Annapolis, Maryland, USA. Details from: Dr. Syed Ismail, Chairman, 19th ILRC Program Committee, Langley Research Center, Mail Stop 401A, Hampton, Virginia 23665-5225, USA; E-mail: s.ismail@larc.nasa.gov or Dr. William Heaps, Chairman, 19th ILRC Organizing Committee, NASA/Goddard Space Flight Center, Code 916, Greenbelt, Maryland, USA; Fax: +1-301-286-1662, E-mail: heaps@aeolus.gsfc.nasa.gov

July 7-10, 1998; **4th International Interdisciplinary Conference on the Environment**, Washington, DC, USA. Details from: IEA/Kantarelis-Hickey, Assumption College, 500 Salisbury Street, Worcester, MA 01615, USA; Tel: +1-508-767-7557 or 7296, Fax: +1-508-767-7382, E-mail: dkantar@eve.assumption.edu or khickey@eve.assumption.edu

July 12-16, 1998; **Tenth IMDSP Workshop 98**, Alpbach, Austria. Details from: Prof. Dr.-Ing. Bernd Girod, Telecommunications Institute, University of Erlangen-Nuremberg, Cauerstrasse 7, 91058, Erlangen, Germany; E-mail: imdsp@nt.e-technik.uni-erlangen.de, http://www.nt.e-technik.uni-erlangen.de/~imdsp

July 12-19, 1998; **32nd COSPAR Scientific Assembly**, Nagoya, Japan. Details from: COSPAR Secretariat, 51, dbd. de Montmorency, 75016 Paris, France, Tel: +33-1-45250679, Fax: +33-1-40509827, E-mail: cospar@paris7.jussieu.fr, http://www.copernicus.org/COSPAR/COSPAR. html

July 13-17, 1998; **NVAGA4 Nonlinear Variability in Geophysics and Astrophysics 4, EGS Richardson Conference**, Roscoff, France. Details from: http://www.multifractal.jussieu.fr/~www/NVAGA4.html

July 21-24, 1998; **Western Pacific Geophysics Meeting**, Taipei, Taiwan. Details from: AGU, 2000 Florida Avenue NW, Washington DC 20009, USA; Tel: +1-202-462-6900, Fax: +1-202-328-0566, http://www.agu.org

August 17-20, 1998; **International Glaciological Society Symposium on Glaciers and the Glaciated Landscape**, Kiruna, Sweden. Details from: C.S.L. Ommanney, International Glaciological Society, Lensfield Road, Cambridge CB2 1ER, United Kingdom; Tel: +44-1223-355-974, Fax: +44-1223-336-543

August 17-20, 1998; **Second International Conference on Climate and Water**, Espoo, Finland. Details from: Helsinki University of Technology, Water Res. Eng., Nea Helenius, Tekniikantje 12, 02150 Espoo, Finland, Fax: +358-9-451-38-27, E-mail: nheleniu@ahti.hut.fi, http://ahti.hut.fi/wr/caw2

August 17-21, 1998; **International Conference on Satellites, Oceanography and Society**, Lisbon, Portugal. Details from: D. Halpern, Jet Propulsion Laboratory, MS 300-323, California Institute of Technology, Pasadena, CA 91109-8099, USA; E-mail: halpern@pacific.jpl.nasa.gov

August 23-28, 1998; **6th International Conference on Palaeoceanography**, Lisbon, Portugal. Details from: F. Abrantes, Agencia Abreu S.A., Congress Dept., Av. 25 de Abril, @-Edificio Abreu, 2795 Linda-Velha, Portugal; Tel: +351-1-416-7200, Fax: +351-1-414-3058, e-mail: ovaia@abreu.pt

August 31-September 5, 1998; **6th biennial "Castle Meeting" on Paleo, Rock and Environmental Magnetism**, Castle "Hruba Skala", Czech Republic. Details from: E. Petrovsky, Geophysical Institute, Bocni II/1401, 14131 Praha 4, Czech Republic; Tel: +420-2-67103-333, Fax: +420-2-761549, E-mail: edp@ig.cas.cz

September 3, 1998; **V.M. Goldschmidt Conference**, Toulouse, France. Details from: J. Schott, Lab. de Geochimie, 38 rue des Trente Six Ponts, 31400 Toulouse, France; Tel: +33-561-556518, Fax: +33-561-520544, E-mail: goldconf@lucid.ups-tlse.fr

September 3-6, 1998; **Euroconference on Earth Stress and Industry - The World Stress Map and Beyond**, Heidelberg, Germany. Details from: WSM Euroconference Office, Geophysical Institute, University of Karlsruhe, Hertzstr. 16, 76187 Karlsruhe, Germany; Fax: +49-721-71173, E-mail: wsm@gpiwap1.physik.uni-karlsruhe.de, http://www-gpi.physik.uni-karlsruhe.de/pub/wsm/

September 7-9, 1998; **Recent Trends in Cosmochemistry**, Mainz, Germany. Details from: Heide Prager, Abt. Kosmochemie, Max-Planck-Institut für Chemie, P.O. Box 3060, 55020 Mainz, Germany; Tel: +49-6131-305231, Fax: +49-6131-371290, E-mail: prager@mpch-mainz.mpg.de

September 8-12, 1998; **International Conference on Coastal Ocean and Semi-Enclosed Seas Circulation and Ecology Modelling and Monitoring**, Moscow, Russia. Details from: Prof. V.V. Zhmur, P.P. Shirshov Institute of Oceanology, Russian Academy of Sciences, Moscow, Russia; Fax: +7-095-124-5983, E-mail: zhmur@tiki.sio.rssi.ru

September 15-17, 1998; **Fourth International Symposium and Exhibition on Environmental Contamination in Central and Eastern Europe**, Warsaw, Poland. Details from: E.B. Jones, Institute for Central and Eastern European Cooperative Environmental Research, Florida State University, 2035 East Paul Dirac Dr., Morgan Building (226), Tallahassee, FL 32310-3700, USA; Tel: +1-904-644-5524, Fax: +1-904-574-6704, E-mail: warsaw98@mailer.fsu.edu

September 19-22, 1998; **International Ocean Drilling Forum**, Edinburgh, United Kingdom. Details from: Mrs. L. Marshall, Conference Secretary, Dept. of Geology and Geophysics, Edinburgh University, West Mains Rd. Edinburgh EH9 3JW, United Kingdom; Tel: +44-131-860-8546, Fax: +44-131-668-3184, E-mail: l.marshall@glg.ed.ac.uk

September 20-25, 1998; **8th International Symposium on Deep Seismic Profiling of the Continents and their Margins**; Platja d'Aro Conference Centre, Barcelona, Spain. Details from: 8th International Symposium on Deep Seismic Profiling of the Continents and their Margins, Institute of Earth Sciences (J. Almera) - CSIC, Lluis Sole Sabaris s/n, E-08028 Barcelona, Spain; Fax: +34-3-411-0012, E-mail: seismix98@ija.csic.es, WWW http://caribe.ija.csic.es/seismix98/fcirc.html

September 21-25, 1998; **International Conference and Special Workshop on Groundwater Quality: Remediation and Protection**, Tübingen, Germany. Details from: Conference Secretariat GQ'98, c/o Lehrstuhl für Angewandte Geologie, Sigwartstr. 10, 72076 Tübingen, Germany; Tel: +49-7071-2974692, Fax: +49-7071-5059, E-mail: mike.herbert@uni.tuebingen.de

September 21-25, 1998; **Oceanography of the Adriatic Sea**, The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy. Details from: http://www.oc.nps.navy.mil/~poulain/workshop/intro.html for from benoit.cushman-roisin@dartmouth.edu

September 23-30, 1998; **2nd GKSS School on Environmental Research: Models in Environmental Research**, Lauenburg (50 km east of Hamburg), Germany. Details from: Götz Flöser, GKSS Forschungszentrum, Max-Planck-Str. D-21502 Geesthacht, Germany; Tel: +49-4152-871834, Fax: +49-4152-871888, E-mail: floeser@gkss.de; WWW http://w3g.gkss.de/hgf/2ndschool.html

September 28 - October 1, 1998; **OCEANS'98, Engineering for Sustainable Use of the Oceans**, Nice, France. Details from: Thomson Marconi Sonar, OCEANS'98, 525 Route des Dolines, BP 157, 06903 Sophia-Antipolis, France; Tel: +33-492964469, Fax: +33-492963925, E-mail: g.bienvenu@ieee.org

September 28 - October 2, 1998; **Twenty-third NATO/CCMS International Technical Meeting on Air Pollution Modelling and its Application**, Riviera (near Varna), Bulgaria. Details from: Sven-Erik Gryning, Wind Energy and Atmospheric Physics Dept., Risø National Laboratory, DK-4000 Roskilde, Denmark; Fax: +45-4677-5970, E-mail: svenerik.gryning@risoe.dk, conference Internet address: www.risoe.dk/amv.itm

October 3-8, 1998; **Natural Waters and Water Technology: Catalytic Science and Technology for Water**, Acquafredda di Maratea, Italy. Details from: Dr. J. Hendekovic, European Science Foundation, 1 quai Lezay-Marnesia, 67080 Strasbourg Cedex, France; Tel: +33-388-767135, Fax: +33 388 366987, E-mail: euresco@esf.org, http://www.esf.org/euresco

October 20-22, 1998; **Workshop on Space Exploration and Resources Exploitation (ExploSpace), Engineering and Economic Ascpects into the 21st Century**, Sardinia, Italy. Details from: ESTEC Conference Bureau, P.O. Box 299, 2200 AG Noordwijk, The Netherlands; Fax: +31-71-565-5658, E-mail: confburo@estec.esa.nl

December 6-10, 1998; **AGU Fall Meeting**, San Francisco, CA, USA. Details from: AGU, Meetings Dept., 2000 Florida Avenue NW, Washington DC 20009, USA; Tel: +1-202-462-6900, Fax: +1-202-328-0566, E-mail: meetings@kosmos.agu.org, http://www.agu.org

1999

April 19-23, 1999; **European Geophysical Society XXIV General Assembly**, Den Haag, The Netherlands. Details from: EGS Office, Max-Planck-Str. 13, 37191 Katlenburg-Lindau, Germany; Tel: +49-5556-1440, Fax: +49-5556-4709, E-mail: EGS@COPERNICUS.ORG, http://www.copernicus.org/EGS/EGS.html

April 19-23, 1999; **ICHMT's 2nd International Symposium on Heat and Mass Transfer under Plasma Conditions**; Antalya, Turkey. Details from: Prof. Dr. Faruk Arinc, Mechanical Engineering Dept., Middle East Technical University, 06531 Ankara, Turkey; Fax: +90-312-210-1332, e-mail: arinc@metu.edu.tr, http://ichmt.me.metu.edu.tr

August 3-11, 1999; **XV International Congress on "The Environmental Background to Hominid Evolution in Africa"**, Durban, South Africa. Details from: Dr. D. Margaret Avery, INQUA XV CONGRESS, P.O. Box 61, South Africa Museum, Cape Town, 8000, South Africa, Tel: +27-21-243-330, Fax: +27-21-246-716, E-mail: mavery@samuseum.ac.za

2000

April 3-7, 2000; **Millennium Conference on Earth, Planetary and Solar System Sciences, European Geophysical Society XXV General Assembly**, Florence, Italy. Details from: EGS Office, Max-Planck-Str. 13, 37191 Katlenburg-Lindau, Germany; Tel: +49-5556-1440, Fax: +49-5556-4709, E-mail: EGS@COPERNICUS.ORG, http://www.copernicus.org/EGS/EGS.html

2001

April 2-6, 2001; **European Geophysical Society XXVI General Assembly**, Vienna, Austria. Details from: EGS Office, Max-Planck-Str. 13, 37191 Katlenburg-Lindau, Germany; Tel: +49-5556-1440, Fax: +49-5556-4709, E-mail: EGS@COPERNICUS.ORG, http://www.copernicus.org/EGS/EGS.html

Information about the Society

General Information

Founded in 1971, the European Geophysical Society (EGS) has developed into a dynamic, international, multi-and interdisciplinary forum for the geophysics community in Europe and throughout the world. In furtherance of its aims to promote geo- and space-sciences on a pan-European, international level, the Society

- ☆ organizes annual international General Assemblies at different venues in Europe normally in April. These assemblies have become the largest **annual** conferences in geo- and space-sciences held in Europe today.
- ☆ organizes smaller Topical Conferences in cooperation with other scientific organizers or organizing committees and societies.
- ☆ offers a substantial Membership Benefit Programme, including the quarterly issues of Newsletter and reduced concession rates for an increasing number of internationally known journals and publications.
- ☆ provides an increasing number of refereed, international, Scientific Journals for the publication of short communications, original contributions and review articles in all geophysical disciplines.There are no page or handling charges and reprints are, in general, free. There are also excellent concession rates for EGS members.
- ☆ publishes four Book Series of worldwide distribution at 30% discount for EGS members with guaranteed high royalties for authors.
- ☆ maintains a close liaison to a number of European scientific societies and organizations, such as, e.g., the Austrian Society for Meteorology, the British Hydrological Society, the Canadian Geophysical Union, the Challenger Society for Marine Science, the Deutsche Meteorologische Gesellschaft, the Geophysical Section of the Czech Union of Mathematicians and Physicists, the Geophysical Society of Finland, the Nordisk Hydrologisk Forening, the Royal Astronomical Society, the Societé Royale Belge d'Astronomie, de Météorologie et de Physique du Globe, the Swiss Specialist Group of Geophysicists.
- ☆ promotes, in particular, the Young Scientists in Europe, e.g. by the Young Scientists' Travel Award, the Young Scientists' Publication Award or by further reductions in their membership and conference fees and membership subscription rates.
- ☆ helps also the Young Scientists in North America to attend its General Assemblies by providing the Keith Runcorn Travel Award.
- ☆ supports East-European Scientists, e.g. by providing free copies of *Annales Geophysicae* to the main research institutes, by making the East European Support Award to assist their participation in the General Assemblies, by including all summaries free of charge in the Book of Abstracts (*Annales Geophysicae Supplement*) for each General Assembly, and by careful editing of manuscripts submitted for publication.
- ☆ maintains a special Award Programme, including Society Awards, such as Honorary Membership and the EGS Badge Award, as well as Section Awards, such as the Young Scientists' Publication Award and the Louis Néel, the Beno Gutenberg, the Fridtjof Nansen, the Vilhelm Bjerknes, the Milutin Milanković, the Julius Bartels, the David Bates and the Sergey Soloviev Medals.
- ☆ organizes all scientific activities in a most liberal and democratic way through Sections and Interdisciplinary Working Groups.

EGS Membership

Membership of the EGS is by payment of an annual membership fee and is open to individuals or organizations professionally engaged in or associated with geophysics and related studies.

Regular Membership is available to individuals. Those applying for student dues should enclose a certificate of their student status.

Emeritus Scientist Membership is available to individuals, who have formally left their official scientific positions.

Affiliated & Corporate Membership is available to individuals belonging to a department, laboratory or institute or by members belonging to an academy, society or union either individually through their organization as an affiliated member (⅓ reduction) or en-bloc as corporate members (⅔ reduction).

Life-Time Membership is available to individuals by a one time payment in lieu of annual dues.

All participants in the XXII General Assembly that will register at the full meeting Non EGS Membership/Non EGS Student Membership fee will automatically become Member/Student Member of the Society for 1997.

Membership is on a calendar year basis. Membership applications received after 1 October will be made effective as of 1 January of the following year, unless otherwise requested. Annual invoices requesting payment of membership fees and subscription to EGS journals are sent out at the end of the preceding year.

EGS Awards

Members of the EGS may propose appropriate candidates for the following Society Awards and Medals to the EGS Office at any time. Any proposal/application should be supported by at least two, independent colleagues, and it will be reviewed by the EGS Awards' Committees and independent referees. Deadline for any proposal is 31 December.

1. Honorary Membership *(since 1973)*

Honorary Membership is the most prestigious award made by the Society. It is reserved for scientists who have achieved exceptional international standing in geophysics, defined in its widest sense.

2. EGS Badge Award *(since 1988)*

This award is reserved for individuals in recognition of their outstanding service and/or exceptional efforts in the promotion, growth and running of the Society.

3. Young Scientists' Publication Award *(since 1990)*

These awards are made to the younger and more recently established scientists in the geophysical disciplines in recognition of their outstanding contributions to the EGS scientific journals. Each Section may bestow one award each year.

4. Louis Néel Medal *(since 1993)*

This medal has been established by the Section on Solid Earth Geophysics (SE) in recognition of the scientific achievements of Louis Eugène Felix Néel, who shared the 1970 Nobel Prize of Physics for his fundamental research and discoveries concerning antiferromagnetism. This medal is reserved for individuals in recognition of outstanding achievements in the fertilization of the Earth Sciences by the transfer and application of fundamental theory and/or experimental techniques of solid state physics, as defined in its broadest sense.

5. Stephan Mueller Medal *(since 1997)*

This medal has been established by the Section on Solid Earth Geophysics (SE) in recognition of the scientific and editorial achievements of Stephan Mueller, "Founding Father", President, Honorary Member, Badge Awardee and Editor-in-Chief of the European Geophysical Society, for exceptional contributions to Tectonics and Lithospheric Geophysics.

6. Beno Gutenberg Medal *(since 1996)*

This medal has been established by the Section on Solid Earth Geophysics (SE) in recognition of the scientific achievements of Beno Gutenberg. It is reserved for individuals in recognition of their outstanding contributions to Seismology.

7. Vening Meinesz Medal *(since 1997)*

This medal has been established by the Section on Geodesy (G) in recognition of the scientific achievements of Vening Meinesz. It is reserved for distinguished research in Geodesy in general.

8. John Dalton Medal *(since 1997)*

This medal as been established by the Section on Hydrological Sciences (HS) in recognition of the scientific achievements of John Dalton. It will be awarded by the European Geophysical Society for distinguished research in Hydrology viewed as an Earth science.

9. Fridtjof Nansen Medal *(since 1996)*

This medal has been established by the Section on Oceans and Atmosphere (OA) in recognition of the scientific achievements of Fridtjof Nansen. It will be awarded by the European Geophysical Society for distinguished research in Oceanography.

10. Vilhelm Bjerknes Medal *(since 1995)*

This medal has been established by the Section on Oceans and Atmosphere (OA) in recognition of the scientific achievements of Vilhelm Bjerknes. It is reserved for distinguished research in Atmospheric Sciences.

11. Milutin Milankovitch Medal *(since 1993)*

This medal has been established by the Section on Oceans & Atmosphere (OA) in recognition of the scientific and editorial achievements of Milutin Milankovitch. This medal is reserved for scientists for their outstanding achievements in Climatological Sciences.

12. Julius Bartels Medal *(since 1996)*

This medal has been established by the Section on Solar-Terrestrial Sciences (ST) in recognition of the scientific achievement of Julius Bartels. It is reserved for outstanding research in Solar-Terrestrial Sciences.

13. David Robert Bates Medal *(since 1992)*

This medal has been established by the Section on Planetary & Solar System Sciences (PS) in recognition of the scientific and editorial achievements of Sir David Robert Bates FRS. It is reserved for scientists for their exceptional contributions to Planetary and Solar System Sciences.

14. Hannes Alfvén Medal *(since 1997)*

This medal has been established by the Sections on Solar Terrestrial Sciences (ST) and Planetary Sciences (PS) in recognition of the scientific achievements of Hannes Alfvén, and it is awarded for outstanding scientific contributions tqwards the understanding of plasma processes in the solar system and other cosmical plasma environments.

15. Sergey Soloviev Medal *(since 1996)*

This medal has been established by the Interdisciplinary Working Group (IWG) on Natural Hazards (NH) in recognition of the scientific achievement of Sergey Soloviev. It is reserved for scientists for their exceptional contributions to natural hazards, in particular, for their research aiming at an improvement of our knowledge of basic principles as well as for the assessment and proper mitigation of hazards in view of environmental protection and the integrity of human life and socio-economic systems.

16. Young Scientists' Travel Award *(since 1977)*

These awards are intended to help young European scientists or young scientists working in Europe to attend the scientific conferences of the Society by providing a financial contribution to the cost of travel of max. 500 Swiss France & free registration.

17. Keith Runcorn Travel Award *(since 1997)*

These awards are intended to assist a limited number of young American scientists to attend the General Assemblies of the Society by providing a financial support to their travel expenditures of max. 500 US$ & free registration.

18. East European Support Award *(since 1989)*

These awards are intended to help scientists from the countries in East-Europe to attend the scientific conferences of the Society by covering health insurance, local travel costs, conference fees, accommodation costs, and some modest amount for daily expenses.

EGS Officers 1998-2000

I. Council

President:	S. Cloetingh
Past-President	H. Wänke
General Secretary:	M. Rycroft
Treasurer:	M. Hapgood
Executive Secretary:	A.K. Richter
President of Section SE:	R. Sabadini
President of Section G:	S. Zerbini
President of Section HS:	H. Savenije
President of Section OA:	N.O. Jensen
President of Section ST:	P. Fabian
President of Section PS:	G. Neukum

II. IWG Chairpersons

Chairman of IWG NP:	P. Read
Chairman of IWG NH:	F. Siccardi

III. Sections and Sub-Sections

Section I: Solid Earth Geophysics (SE)

President: R. Sabadini

Sub-Sections' Secretaries:

1. Tectonophysics	TBD
2. Seismology	W. Rabbel
3. Volcanology, Geochemistry & Petrology	P. Jakes
4. Palaeomagnetism & Rock Magnetism	V. Hoffmann
5. Potential Fields	W. Jacoby
6. Environmental Geophysics	S. Papamarinopoulos
7. Physical Properties of Geomaterials	J.L. Urai
8. Electromagnetism	V. Haak
9. Marine Geophysics	J.J. Dañobeitia

Section II: Geodesy (G)

President: S. Zerbini

Sub-Sections' Secretaries:

1. Earth's gravity field and its temporal variations	B. Richter
2. 3D coordinates and their temporal variations	H.-G. Kahle
3. Satellite Orbits	R. Noomen
4. Monitoring the ocean, ice and terrain surface	P. Knudsen
5. Geodetic aspects of global change phenomena	H.-P. Plag
6. Interactions between soild Earth, oceans and atmosphere	A. Geiger
7. Geodetic methodology	I.N. Tziavos
8. Earth's rotation	B. Kolaczek

Section III: Hydrological Sciences (HS)

President: H. Savenije

Section A: Hydrology and Earth System Sciences

Chairman:	J.P. O'Kane
1. Hydrology of the Earth's crust	R. McKay
2. Hydrology of landforms and fluvial processes	S. White
3. Hydrology & climate	J. Corte-Real
4. Hydrology & weather	P. Burlando
5. Hydrology of surface processes	G. Kiely
6. Hydrology & soil procecesses	W. Durner
7. Hydrology & living communities	TBD
8. Hydrology & chemical processes	P. Grathwohl
9. Hydrology & appl. mathematics	R. Rosso

Section B: Hydrology and Water Resources

Chairman:	TBD
1. Water Resources Research	G. Blöschl
2. Water Resources Engineering and Management	M. Bruen

Section IV: Oceans and Atmosphere (OA)

President: N.O. Jensen

Sub-Sections' Secretaries:

1. Oceanography	K. Richards
2. Meteorology	J.R. Bates
3. Climatology	H. LeTreut
4. Ocean & atmospheric chemistry	G. Le Bras
5. Glaciology	L. Braun
6. Applied oceanography	D. Prandle
7. Applied meteorology	P. Bessemoulin
Bulletin Board Manager	D. Stevens d.stevens@uea.ac.uk

Section V: Solar-Terrestrial Sciences (ST)

Vice-President: P. Fabian

Sub-Sections' Secretaries:

1. Dynamics of the Middle Atmosphere	M. Dameris
2. Chemistry of the Middle Atmosphere	B. Krüger
3. Ionosphere and Thermosphere	D. Fontaine
4. Magnetosphere	M. Rycroft
5. Heliospheric Physics	R. Marsden
6. Solar Physics	B. Foing

Section VI: Planetary & Solar System Sciences (PS)

Vice-President: G. Neukum

Sub-Sections' Secretaries:

1. Cosmochemistry	G. Kurat
2. Small Bodies, Dust and Rings	G. Schwehm
3. Terrestrial Planets and Satellites	P. Janle
4. Outer Planets	A. Coustenis
5. Atmospheres	S. Lewis
6. Magnetospheres and Ionospheres	R. Prangé
7. Exobiology	G. Horneck

IWG I: Nonlinear Processes in Geophysics (NP)

Chairman: P. Read

Sub-Groups' Vice-Chairmen:

1. Scaling and Mulifractals	D. Schertzer
2. Chaos and Nonlinear Time Series Analysis	L.A. Smith
3 Turbulence and Diffusion	B. Legras
4. Nonlinear Waves and Coherent Structures	S.S. Moiseev

IWG II: Natural Hazards (NH)

Chairman: F. Siccardi

Sub-Groups' Vice-Chairmen:

1. Hydrological Hazards	L. Garrote
2. Volcanological Hazards	G. Macedonio
3. Landsliding Hazards	F. Guzzetti
Bulletin Board Manager	F. Guzzetti f.guzzetti@irpi.pg.cnr.it

NICE ACROPOLIS - Les Muses - Level 3
Posters OA

Oceans and Atmosphere OA

1. Deep Sea Oceanography

OA1	OA001-OA029	WE
OA2	OA030-OA033	TH
OA6	OA34-OA52	TU
OA7	OA053-OA062	TH

2. Regional Scale Oceanography

OA4	OA063-OA074	TH
OA5	OA078-OA100	TU
OA8	OA101-OA118	TU

3. Applied Oceanography

OA23	OA119-OA131	WE
OA24	OA132-OA142	TH

4. Ocean-Atmosphere Coupling

OA3	OA143-OA156	TH
OA14	OA157-OA170D	TH

5. Climate Variability

OA17	OA171-OA216	WE

6. Atmospheric Boundary Layer

OA9	OA217-OA225	TH
OA10	OA226-OA262	TH
OA11	OA263-OA275	TU
OA13	OA276-OA292	TH

7. Clouds

OA15	OA293-OA308	TH

8. Weather Forecasting & Predictability

OA12	OA309-OA318	TU
OA25	OA319-OA325	TU
OA26	OA326-OA328	TU

9. Atmospheric Chemistry

OA16	OA329-OA339	TU
OA18	OA340-OA362	TH
OA19	OA363-OA386	TU

10. Marine Chemistry

OA21	OA387-OA397	TU
OA22	OA398-OA399	TH
OA27	OA400-OA426	TH

Video Demonstrations

Presentations are scheduled during corresponding poster sessions.

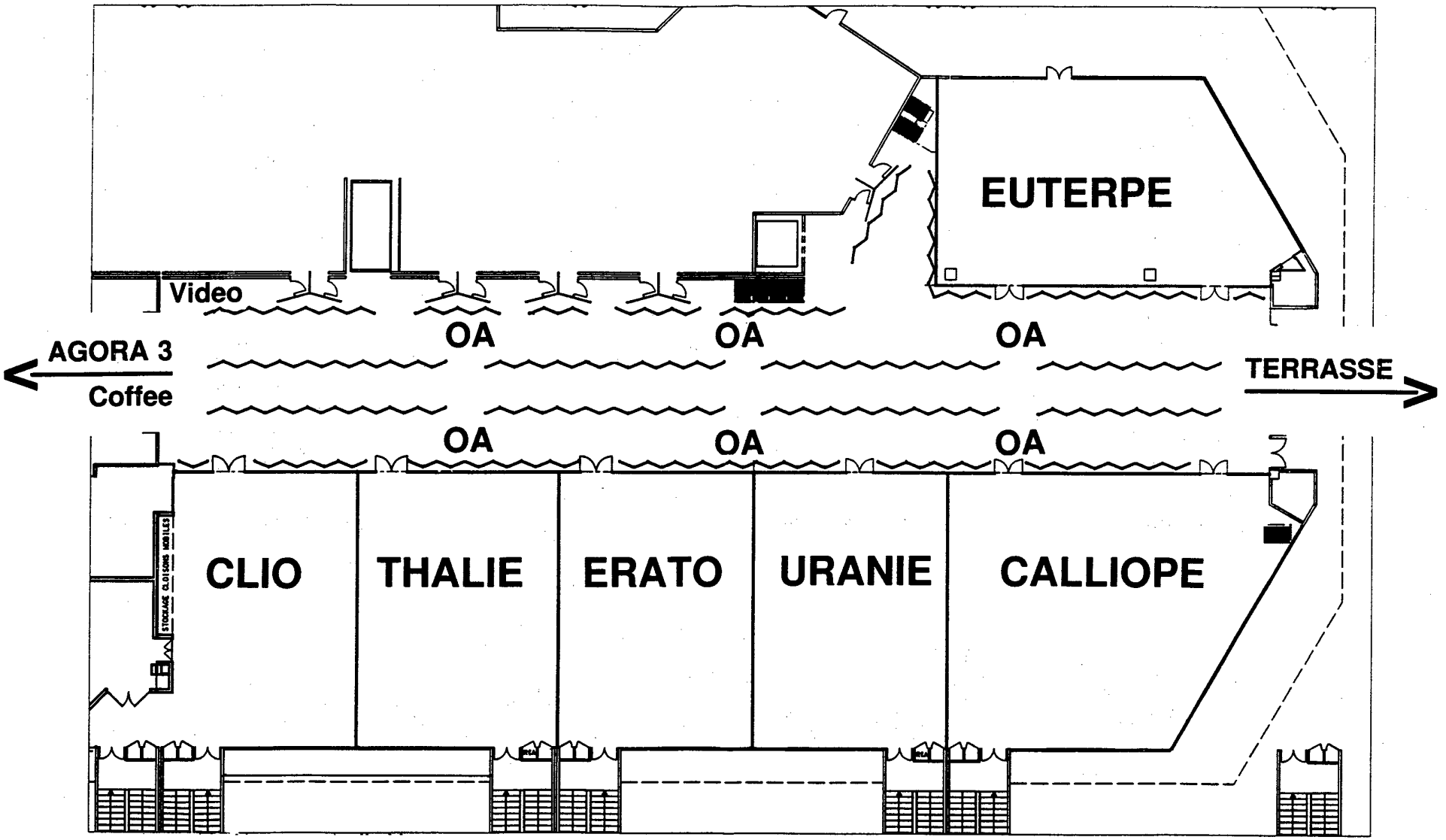
Tuesday, 21 April

17.00-17.30 OA5
MELSOM, A.
Ocean circulation in Vestfjorden (Video)

Wednesday, 22 April

17.00-17.30 OA1
GARZOLI, S.L.; **RICHARDSON, P.**; DUNCOMBE RAE, C.; FRATANTONI, D.; GONI, G.
Benguela current experiment (Video)

NICE ACROPOLIS - Les Muses - Level 3
Sessions & Posters OA



NICE ACROPOLIS - AGORA 3 - Level 3
Posters ST, PS & NP

Solar-Terrestrial Sciences ST

1. Middle Atmosphere

ST1	ST001-ST002A	TU
ST2	ST003-ST018	TU
ST15.1	ST019-ST028A	TH
ST15.2	ST029-ST036	TH
ST15.3	ST037-ST048A	TH
ST15.4	ST049-ST066A	TH
ST17.1	ST067-ST076	TU
ST17.2	ST077-ST090A	TU

2. Ionosphere

ST3	ST091-ST136	TH
ST7	ST137-ST142	WE
ST8	ST143-ST146	TU
ST9	ST147-ST154	TU
ST10	ST155-ST168A	TH

3. Magnetosphere

ST4	ST169-ST180	TH
ST11	ST181-ST192E	WE

4. Sun & Heliosphere

ST5	ST193-ST206A	TU
ST6	ST207-ST210	TU
ST12	ST211-ST218	TH
ST13.2	ST219-ST224	WE

Planetary and Solar System Sciences PS

1. Interior & Surface

PS1	PS001-PS002	TH
PS2	PS003-PS020	TU
PS9	PS021-PS026	TH

2. Atmospheres etc.

PS3	PS035-PS041	WE
PS4	PS042-PS046	TH

3. Mars Pathfinder

PS13	PS027-PS034	TU

4. ISO Observations

PS5	PS047-PS050	TH
PS11	PS051-PS062	TU

5. Extra-solar planets

PS12	PS063-PS066	WE

6. Laboratory studies

PS7	PS067-PS074	WE

Nonlinear Processes in Geophysics NP

1. Multifractals

NP1.1	NP001-NP006	TU
NP1.2	NP007-NP014	TU
NP1.3	NP015-NP021	TU
NP1.4	NP022-NP022A	TU

2. Time Series Analysis

NP2.1	NP023-NP028	WE
NP2.2	NP029-NP030	WE
NP2.3	NP031-NP038	WE

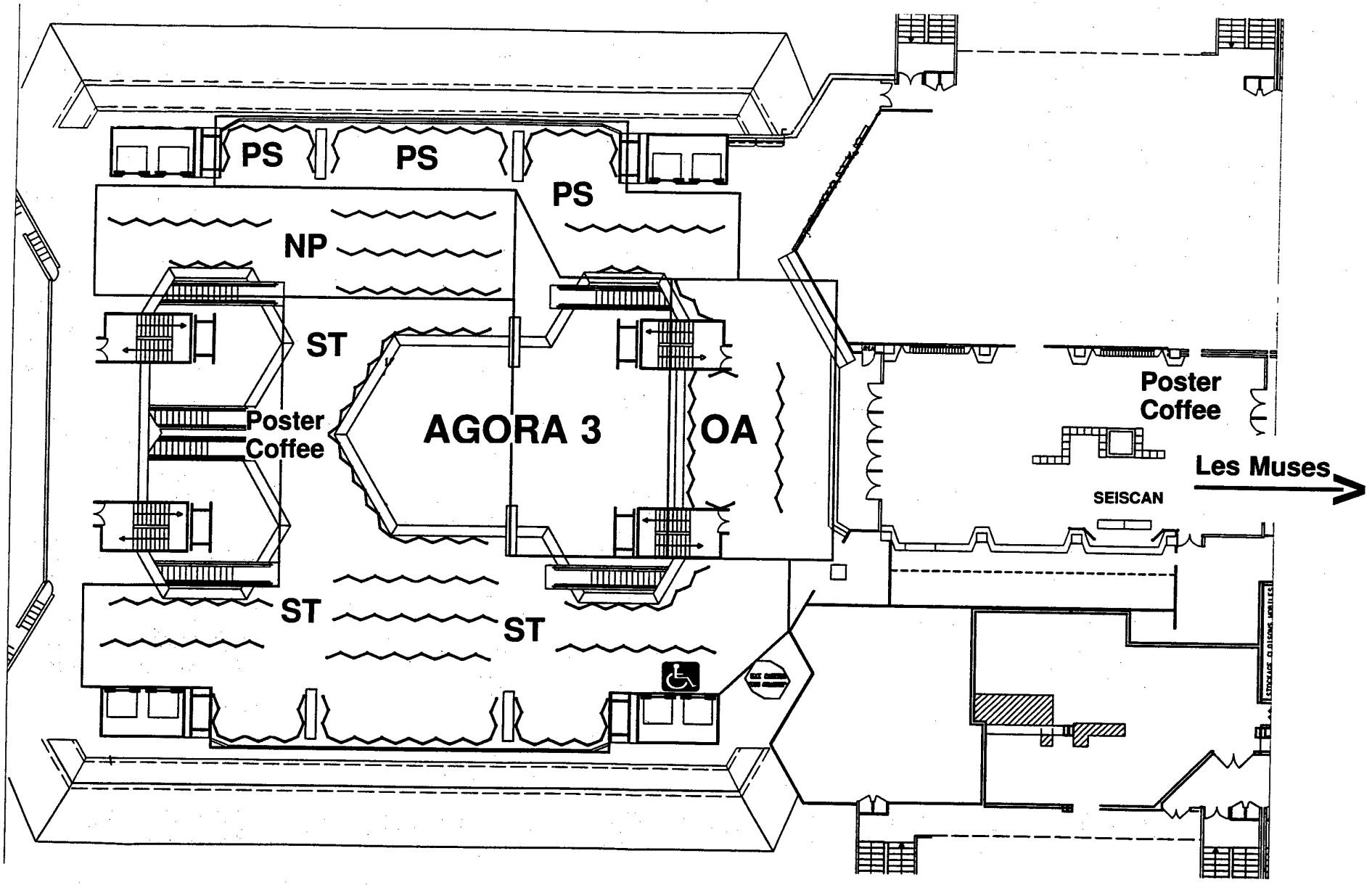
3. Geophysical Flows

NP3.1	NP039-NP045	TU
NP3.2	NP046-NP054	WE
NP3.3	NP055-NP059	TU
NP3.4	NP060-NP064	TH
NP3.5	NP065-NP078D	TH

4. Waves

NP4.1	NP079-NP090	TH
NP4.2	NP091-NP092	TH
NP4.3	NP093-NP097	TU
NP5	NP098-NP102	TH

NICE ACROPOLIS - AGORA 3 - Level 3
Posters ST, PS & NP



NICE ACROPOLIS - Rhodes & Athéna - Level 2
Posters SE & NH

Solid Earth Geophysics SE

1. Lithospheric Structure & Evolution

EGS1.2	SE001-SE011	WE
SE5	SE012-SE030	WE
SE10	SE031-SE033	TU
SE11	SE034-SE038	TU
SE14	SE039-SE048	WE
SE15	SE049-SE050B	TU
SE16	SE051-SE058	TH
SE19	SE059-SE067	TU
SE20	SE068-SE080	TH
SE22	SE081-SE090	TU
SE23	SE091-SE102	TH

2. Seismicity & Seismotectonics

EGS1.3	SE103-SE109	TH
SE13	SE110-SE117B	TH
SE21	SE118-SE124	TH
SE25	SE125-SE132	TH

3. General Tectonophysics

SE1	SE133-SE136	TU
SE17.1	SE137-SE148	TH
SE17.2	SE149-SE150	TU
SE17.3	SE151-SE155	TU

4. Earth's mantle & core

SE2	SE156-SE165	TH
SE7	SE166-SE168	TU

5. Earthquakes

SE24	SE169-SE175	TU
SE24.1	SE176-SE191	TU
SE27	SE912-SE194	TH

6. Volcanology, Geochemistry & Petrology

SE31	SE195-SE200	TU
SE33	SE201-SE204	TH

7. Magnetism

SE34.1	SE205-SE228	TU
SE34.2	SE229-SE246	TH
SE34.3	SE247-SE251	TU
SE34.4	SE252-SE261	WE
SE34.5	SE262-SE265	TH
SE34.6	SE266-SE270	TH
SE35.1	SE271-SE282	TU
SE35.2	SE283-SE284	TU

8. Potentiel fields

SE36	SE285-SE300	TU

9. Geophysical & Geological Data

EGS2	SE301-SE304	TU
EGS3	SE305-SE313	TU
SE6	SE314-SE320	TU
SE8	SE321-SE338C	TH
SE12	SE339-SE341	TH
SE52	SE342-SE352C	TU

10. Regional studies

SE37	SE353-SE358	TH
SE43	SE359-SE370	TH
SE44	SE371-SE376	TH

11. Geomaterials

SE39.1	SE377-SE391C	WE
SE39.2	SE392-SE401	TH
SE39.3	SE402-SE405A	TH
SE39.6	SE406-SE410	WE
SE41	SE411-SE414	TU

12. Marine Geophysics

SE46	SE415-SE440A	WE
SE47.1	SE441-SE446	TU
SE48	SE447-SE462	TH
SE50	SE463-SE468	WE
SE51	SE469-SE474	TH

Natural Hazards NH

1. Meteorological & hydrological hazards

NH2	NH001-NH022	WE

2. Landslides, volcanoes & tsunamis

NH1	NH023-NH030	WE
NH3.5	NH031-NH042A	TH
NH4	NH043-NH048	TH
NH5	NH049-NH058B	TH

3. Earthquake risk mitigation

NH3.1	NH059-NH067	TU
NH3.4	NH068-NH070	TU
NH3.2	NH071-NH081A	TH
NH3.3	NH082-NH095	TH
NH3.7	NH096-NH104	TH

Video & PC Demonstrations

Presentations are scheduled during corresponding poster sessions.

Tuesday, 21 April

17.00 NH6
RUBBIA RINALDI, G.; PADULA, M.; ROTA, D.; ZERGA, A.
Information dissemination fo the seismicity of Italian area through the GNDT web site (PC demo)

17.30 CARDINALI, M.; **GUZZETTI, F.**; REICHENBACH, P.; TONELLI, G.
Conveying scientific information to the users: the experience of the GNDCI information delivery system (PC demo)

Wednesday, 22 April

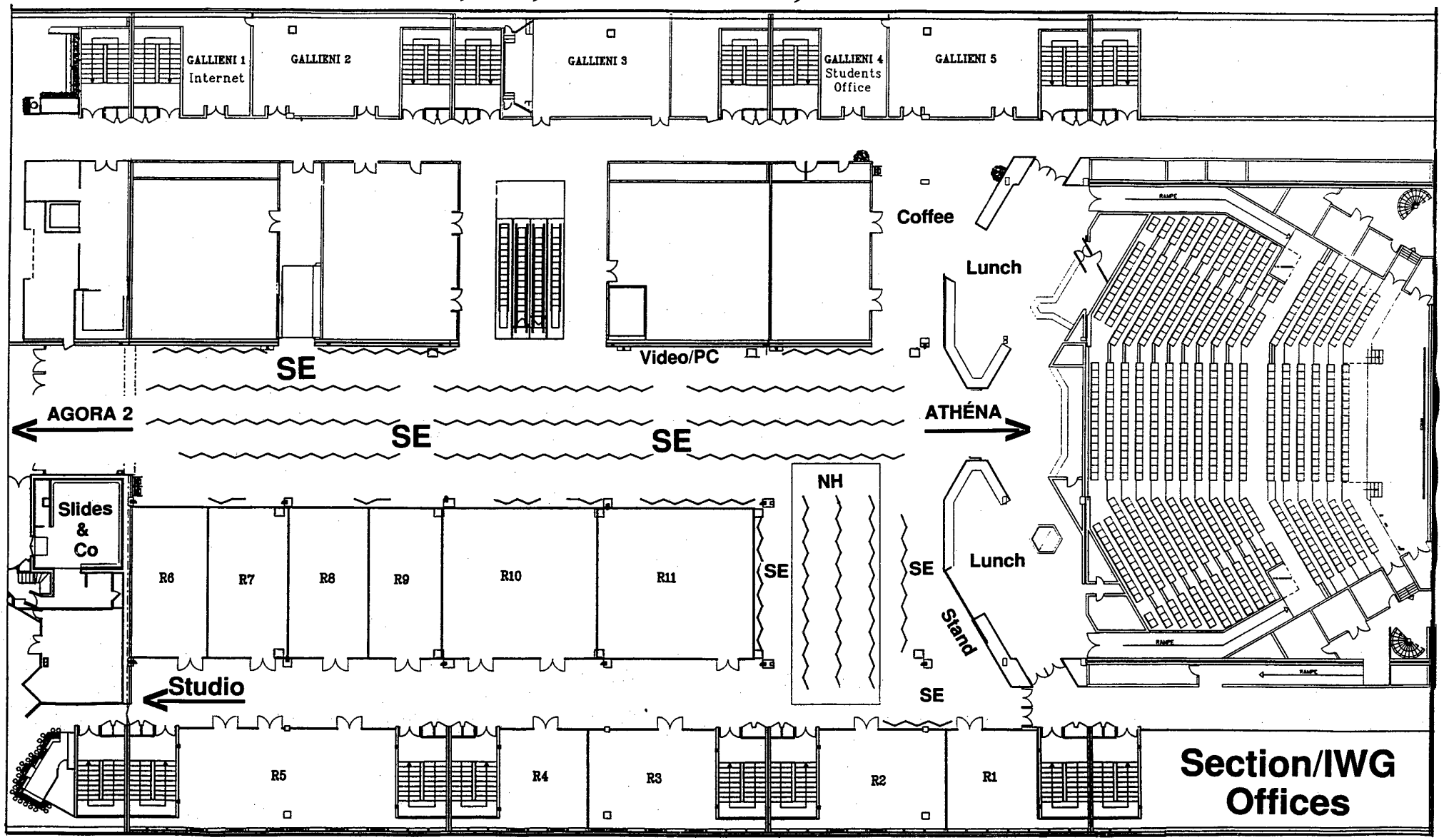
17.30 NH2.4
BOVO, S.; ROSSINO, M.; RAVA, M.
The natural risk situation hall (Video)

18.00 STELLING, G.S.; KERNKAMP, H.W.J.; **LAGUZZI, M.M.**
Delft flooding system: two-dimensional hydrodynamic flooding simulation. A powerful tool for landscape planning and risk evaluation (Video)

Thursday, 23 April

17.00 SE43
BERNARD, T.; **TRESSOLS, F.**
New approach in 3D VLF-EM data representation: exact location of cavities in karst formations from field survey (PC demo)

NICE ACROPOLIS - Rhodes & Athéna - Level 2
Sessions SE, G, HS & NH, Posters SE & NH



NICE ACROPOLIS - AGORA 2/Mykonos/Hermes - Level 2
Posters G & HS

Geodesy G

1. Challenges in Geodesy		
G6	G001	TH
G9	G002-G004	TH
G10	G005-6007	TH
G15	G008-G016	TU
2. Networks and CEI		
G14	G017-G027	TU
G16	G028-G046G	TU
3. Modelling		
G4	G047-G054	TH
G5	G055-G069A	TH
G11	G070-G075	TU
G12	G076-G080B	TH
4. Miscellaneous		
G1	G081-G082	TU
G3	G083-G088	TU

Hydrological Sciences HS

1. HESS 1-4		
HSA1	HS001-HS038	WE
HSA2	HS039-HS040	WE
HSA3	HS041-HS044	WE
HSA4	HS045-HS050	WE
2. HESS 5-9		
HSA5	HS051-HS059	TU
HSA6	HS060-HS075	TU
HSA8	HA076-HS099	TH
HSA9	HS100-HS104	TH
3. Water Resources Research		
HSB1	HS105-HS112	TH
HSB2	HS113-HS120	TH
4. Special Symposia		
HSC1.1	HS121-HS142	WE
HSC1.2	HS143-HS146	TH
HSC1.4	HS147-HS152	TH

Video Demonstrations

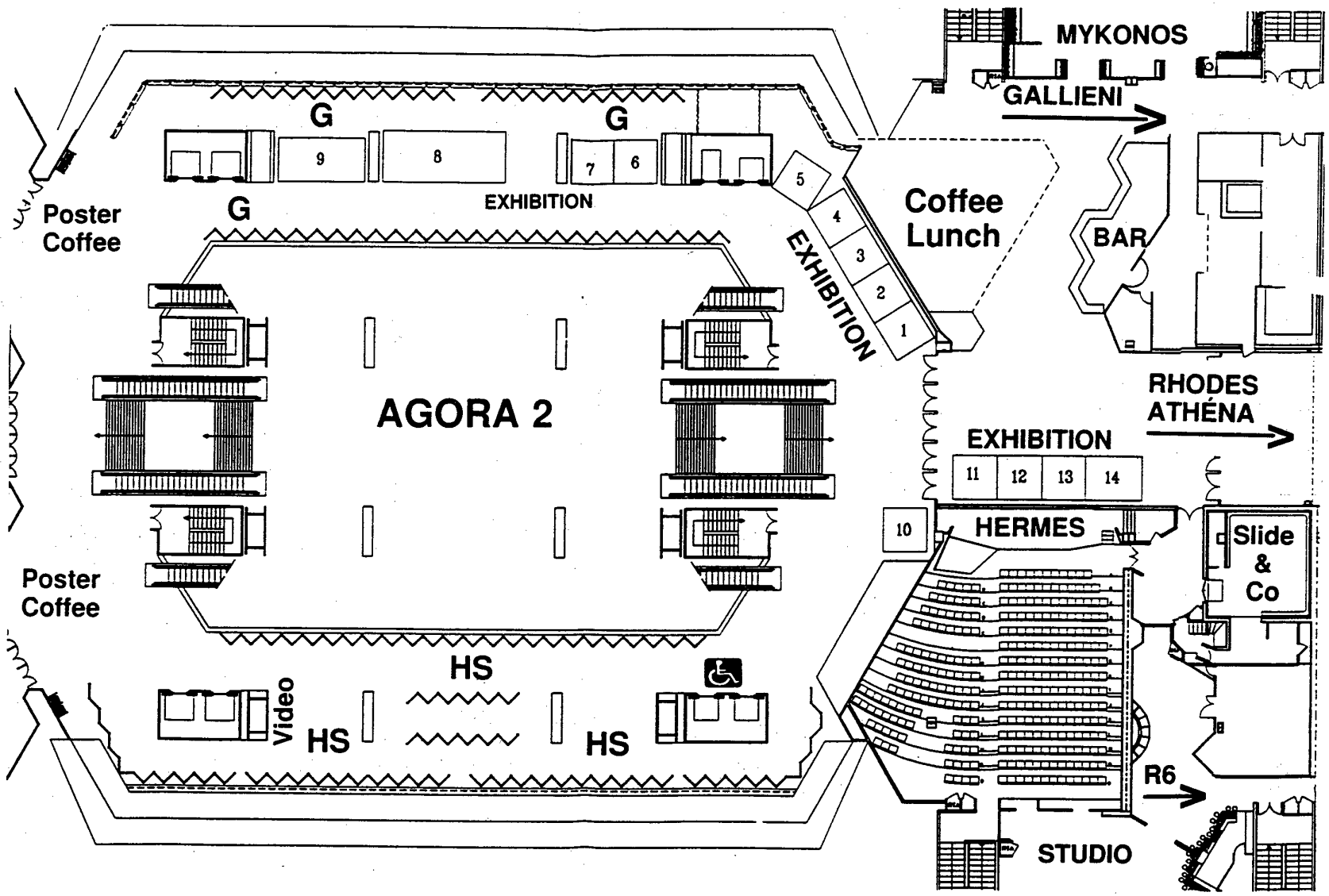
Presentations are scheduled during corresponding poster sessions.

Wednesday, 22 April

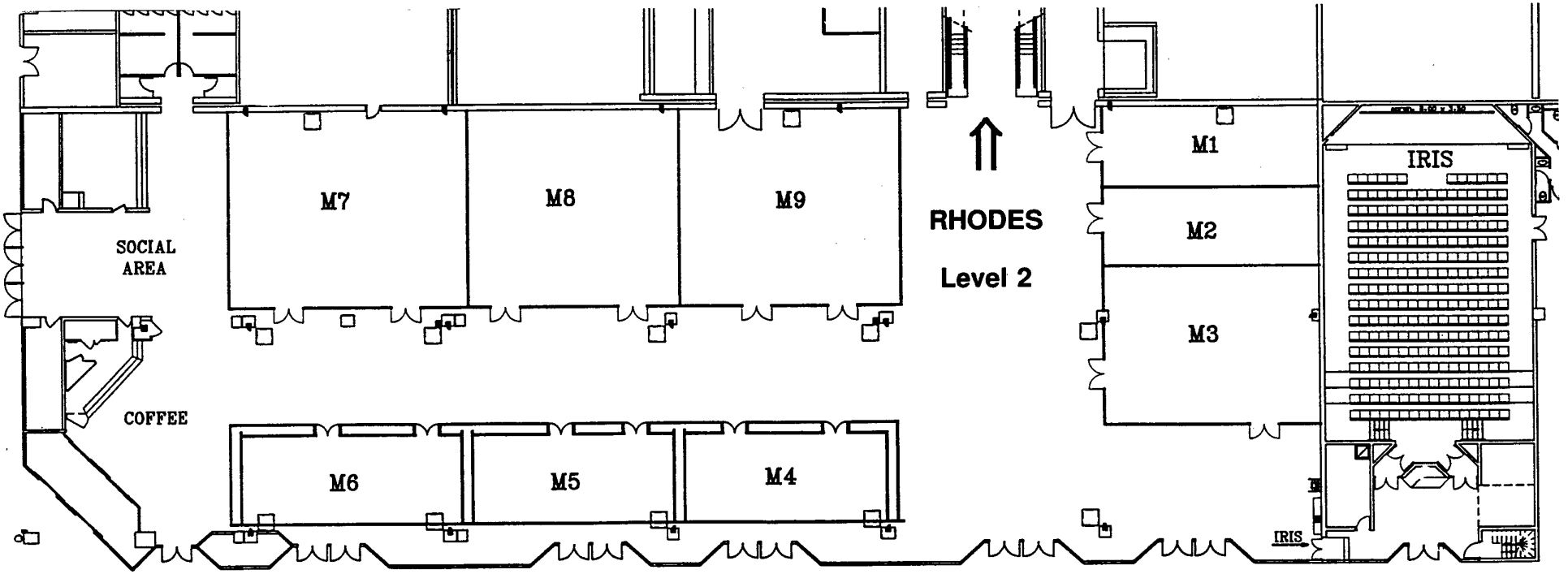
17.00-17.30 HSA4
PEGRAM, G.; CLOTHIER, A.
Space-time modelling of rainfall in fine intervals: the "string of beads" model (Video)

G9	= Session Abbreviation
G002-G004	= Poster Board Numbers
TH	= Day of Poster Session

NICE ACROPOLIS - AGORA 2/Mykonos/Hermes - Level 2
Exhibition & Posters G & HS



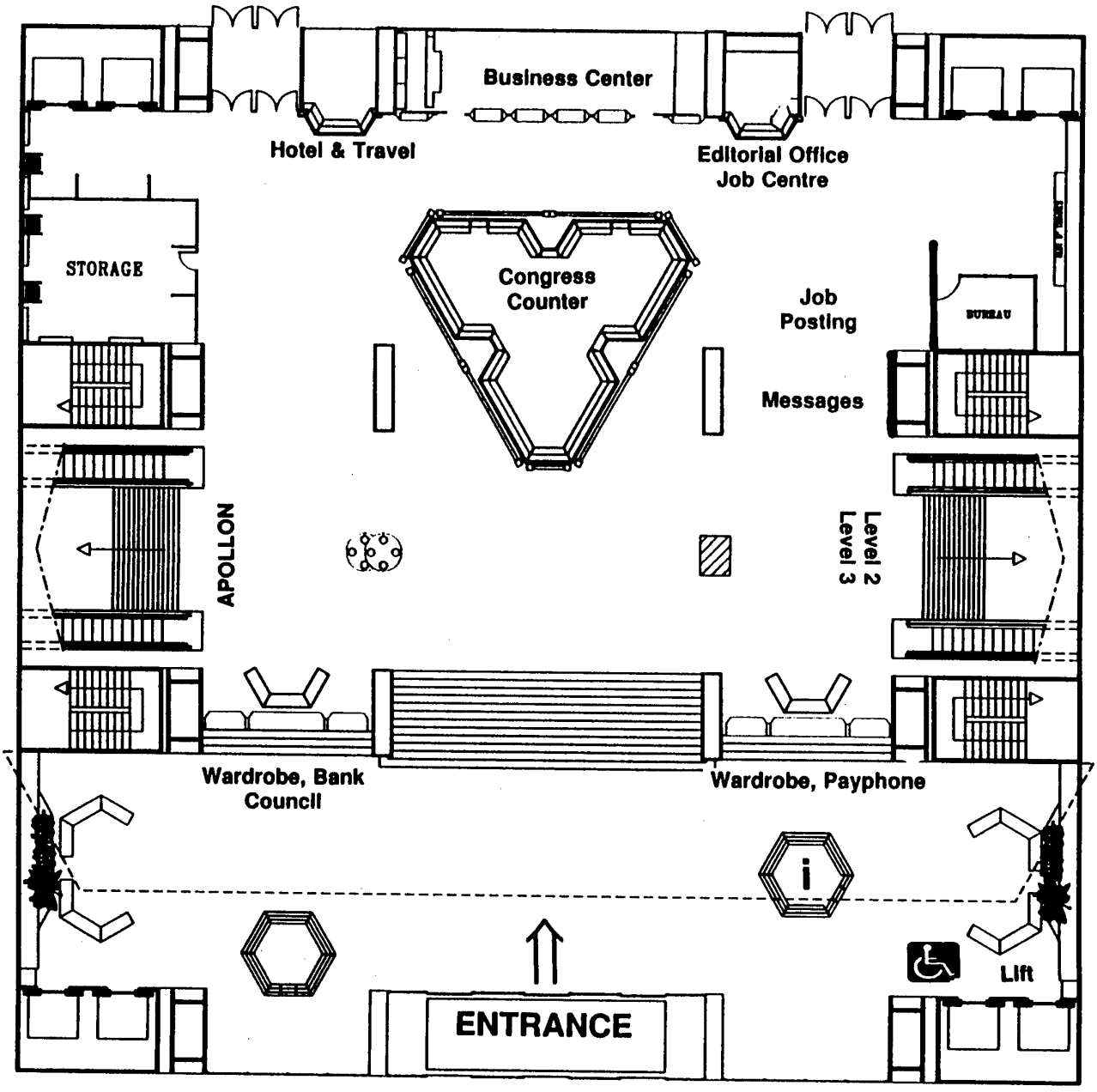
NICE ACROPOLIS - Méditerranée - Level 0
Sessions ST, PS & NP



⇐ **Outdoor Lunch** ⇒

European Geophysical Society
XXIII General Assembly
20-24 April 1998
NICE ACROPOLIS

Entrance Hall - Agora 1 - Level 0/1



BD. RISSO

Newsletter
European Geophysical Society

Number 66 • March 1998

XXIII General Assembly, Nice, France, 20-24 April 1998

General Information **1**

EGS Job Centre **10**

Conference Publications **15**

Physics and Chemistry of the Earth **18**

Scientific Programme Overview **41**

Overall Schedule for Oral & Poster Sessions **51**

Details of Scientific Programme
- Society Symposia **63**
- Solid Earth Geophysics **68**
- Geodesy **122**
- Hydrological Sciences **139**
- Oceans and Atmosphere **161**
- Solar-Terrestrial Sciences **207**
- Planetary and Solar System Sciences **236**
- Nonlinear Processes in Geophysics **252**
- Natural Hazards **267**
- Additional Symposia **280**

Author Index **281**

Forthcoming Meetings **322**

Information about the Society **325**

Floor Plans **328**