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Level 3	A P O L L O N	<i>AGORA 3</i>	<i>LES MUSES</i>	T E R R A S S E	OA
		Poster Coffee Poster ST, PS & NP	Coffee & Poster Coffee Rooms Clio, Thalie, Erato, Uranie, Calliope & Euterpe Poster OA & Video		
Level 2	A P O L L O N	<i>AGORA 2</i>	<i>RHODES</i>	A T H É N A	NH HS G SE
		Exhibition Poster Coffee Poster G & HS Video	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		
Level 1		<i>AGORA 1</i>	<i>MÉDITERRANÉE</i>	I R I S	NP PS ST
Level 0		Registration, Business Center Message Boards Job Centre Editorial Office Bank Wardrobes Payphones Council			

EMERGENCY CALL

* 8374

* 8762

* 8757

Schedule of Events

Sunday, 19 April	08.30-17.00	Oral Sessions	Thursday, 23 April
15.00-20.00 Registration	10.00-11.30	Refreshments	08.00-18.00 Registration
Monday, 20 April	17.00-19.30	Poster/Video Sessions & Refreshments	08.30-17.00 Oral Sessions
08.00-18.00 Registration	17.00-18.00	Society Lecture	10.00-11.30 Refreshments
08.30-17.00 Oral Sessions	09.00-19.30	Exhibition	17.00-19.30 Poster/Video Sessions & Refreshments
10.00-11.30 Refreshments	Wednesday, 22 April		09.00-19.30 Exhibition
16.30-17.00 Refreshments	08.00-18.00	Registration	Friday, 24 April
17.00-18.15 Opening & Award Ceremony	08.30-17.00	Oral Sessions	08.00-14.00 Registration
18.15-19.00 Society Lecture	12.00-14.00	Open Section/IWG Luncheons	08.30-18.00 Oral Sessions
19.30-22.00 Icebreaker Reception	17.00-19.30	Poster/Video Sessions & Refreshments	10.00-11.30 Refreshments
Tuesday, 21 April	09.00-19.30	Exhibition	15.00-16.30 Refreshments
08.00-18.00 Registration	19.30-21.00	Conveners' Reception	

REPORT DOCUMENTATION PAGE

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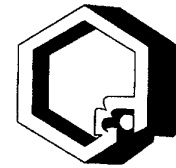
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European Geophysical Society XXIII General Assembly Nice, France 20 - 24 April 1998



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 is from *Bd. Riso*. 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:

<i>Sunday, 19 April</i>	<i>15.00-20.00</i>
<i>Monday-Thursday, 20-23 April</i>	<i>08.00-18.00</i>
<i>Friday, 24 April</i>	<i>08.00-12.00</i>

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 assist 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, signed 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 than 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
Smole/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 resumé 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 Attend-
ance 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 Vejmelek and Jiri Pokorny

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.
Baffins Lane, Chichester
Sussex PO19 1UD
United Kingdom
Attn. Dolores Kelly and Sally Wilkinson

Booth #05

Tel: +44-1243-770259
Fax: +44-1243-770432

Springer-Verlag GmbH & Co. KG

Tiergartenstr. 17
69121 Heidelberg
Germany
Attn. Nicola Klupsch and Wolfgang Engel

Booth #12

Tel: +49-6221-487-994
Fax: +49-6221-487-908

Kluwer Academic Publishers

Spuiboulevard 50
3300 AZ Dordrecht
The Netherlands
Attn. Petra van Steenberg and Eugene de Geus

Booth #06

Tel: +31-78-6392-124
Fax: +31-78-6392-323

Wisepress Ltd.

The Old Lamp Works
25 High Path
Merton Abbey
London SW19 2JL
United Kingdom
Attn. N.N.

Booth #09

Tel: +44-181-715-1812
Fax: +44-181-715-1722

Refraction Technology, Inc.

2626 Lombardy Lane, suite 105
Dallas, TX 75220
USA
Attn. Leonid Zimakov

Booth #07

Tel: +1-214-353-0609
Fax: +1-214-353-9659

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.

Scintec Atmosphärenmesstechnik GmbH Booth #10

Hölderlinstr. 31
72074 Tübingen
Germany
Attn. Volker Thiermann

Tel: +49-7071-921411
Fax: +49-7071-551431

**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

2.6. John Dalton Medal
James C.I. Dooge

2.2. EGS Badge Award
James S.G. McCulloch
Roberto Sabadini

2.7. Fridtjof Nansen Medal
Jean-Francois Minster

2.3. Stephan Mueller Medal
Peter A. Ziegler

2.8. Vilhelm Bjerknes Medal
Arnt Eliassen

2.4. Beno Gutenberg Medal
Markus Båth

2.9. Milutin Milanković Medal
Syukuro Manabe

2.5. Vening Meinesz Medal
Reiner Rummel

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
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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 Europe) DEM 53,-
Em. Sc.	DEM 98,-	

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 Europe) DEM 16,-
Student	DEM 140,-	
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 Europe) DEM 32,-
Em. Sc.	DEM 40,-	

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.

1998 Membership Subscription

Name Badge _____

Membership-ID No. (if available) _____

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

Total amount DEM _____

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.

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: _____

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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 résumés/CVs before leaving the conference!



EGS

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.



.....

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.

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

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Editorial Assistant AG
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B.P. 4346
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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:

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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 Tel.: +39-2-2369-8400
Dept. of Earth Sciences Fax: +39-2-7490-588
Section of Geophysics bob@sabadini.geofisica.unimi.it
Universita di Milano
via L. Cicognara 7
20129 Milano
Italy

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:

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Burcot Tower Fax: +44-1865-407770
Abingdon jsgmhess@aol.com
Oxon, OX14 3DJ
United Kingdom

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:

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Kluwer Academic Publishers Fax: +31-78-6391-254
P.O. Box 17 ampdejong@wkap.nl
3300 AA Dordrecht
The Netherlands

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 Tel.: +49-6131-393-223
Department of Earth Sciences Fax: +49-6131-394-769
Johannes Gutenberg Universität
Saarstr. 21 jacoby@mzdmza.zdv.uni-mainz.de
55122 Mainz
Germany

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:

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c/o NPG Fax: +49-5556-4709
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37191 Katlenburg-Lindau
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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:

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c/o PSS Fax: +49-5556-4709
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37191 Katlenburg-Lindau
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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:

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Kluwer Academic Publishers Fax: +31-78-6392-254
P.O. Box 17 judy.bothof@wkap.nl
3300 AA Dordrecht
The Netherlands

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:

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c/o Tectonics Fax: +49-5556-4709
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37191 Katlenburg-Lindau
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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
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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)

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Example

2 Mathematical Background

2.1 The Transport Equations

2.1.1 The Standard Set

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

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

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

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

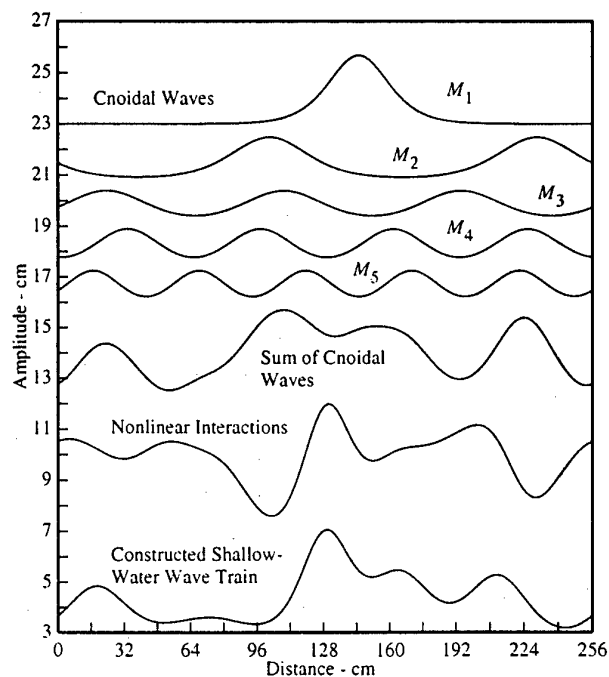


Fig. 3. The cnoidal wave components in the spectrum of Fig. 2 (vertically ordered from small to large wave numbers) are shown, together with the sum of the cnoidal waves, the nonlinear interactions and the synthesized five-component wave train. The linear superposition of the cnoidal waves plus interactions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

	$u_{5,x}$	uu_{xxx}	$u_x u_{xx}$	$u^2 u_x$
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.

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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.

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- 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.

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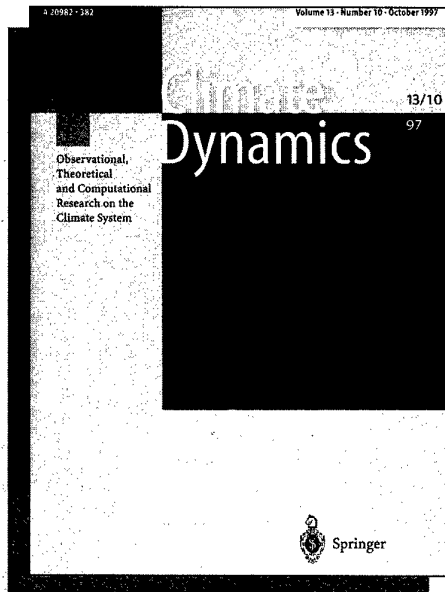
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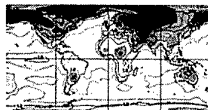
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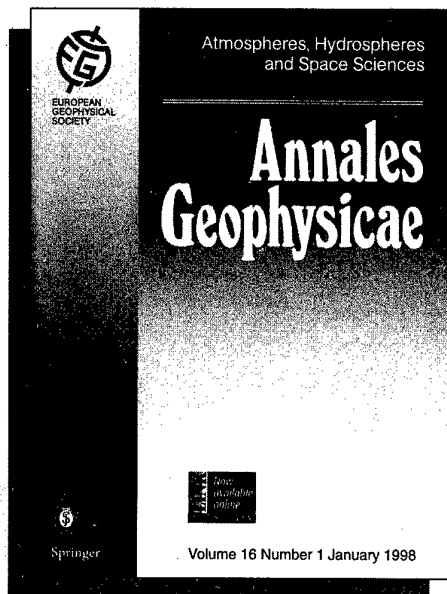
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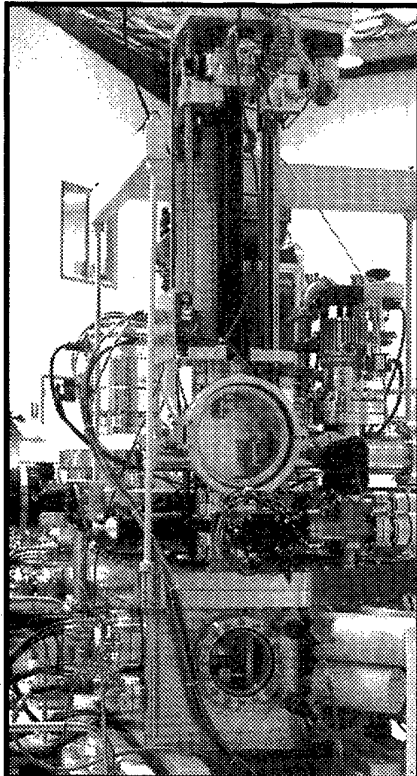
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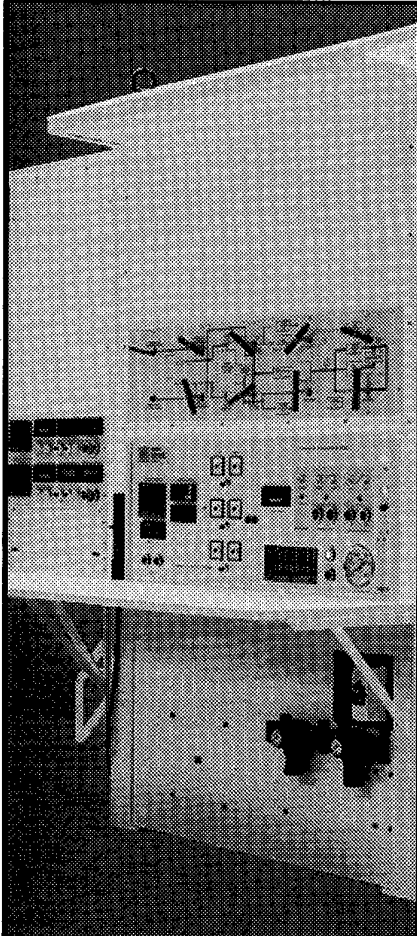
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Convener: A. Roca (Barcelona), Co-Convener: C.S. Oliveira (Lisboa)
- SE23 Seismic anisotropy, scattering and attenuation**
Convener: J. Plomerova (Praha), Co-Convener: C.J. Bean (Dublin)
- SE24 Seismic rupture processes: confrontation of observations 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** SE44
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 (Niemegek), Co-Convener:
M. Chiappini (Rome)
- SE38 Long term global geophysical data products from remote sensing** SE45
Convener: O. Arino (Frascati), Co-Convener:
Y.H. Kerr (Toulouse)
- SE39 Physical properties of geomaterials** SE46
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. Kumpel (Bonn),
Co-Convener: J.-R. Grasso (Grenoble)
- 05 Physical properties of partially molten rocks** SE47
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** SE48
Convener: P.W.J. Glover (Aberdeen),
Co-Conveners: A. Revil (Aix-en-Provence),
J.B. Stoll (Göttingen)
- SE42 Physical properties of fault zones** SE49
Convener: E.J.M. Willemsse (Rijswijk),
Co-Convener: D.J. Sanderson (Southampton)
- SE43 Advances in the physical interpretation of electromagnetic soundings** SE50
Convener: G. Marquis (Strasbourg),
Co-Convener: F. Perrier (Bruyeres le Chatel)
- 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)
- Observations of the electromagnetic field of the Earth in the Alpine-Mediterranean region**
CANCELLED, papers included in SE44
- Open session on marine geophysics**
Convener: J. Danobeitia (Barcelona)
- 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. Dymant (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 inter-comparisons 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-Conveners: J. Kostecky (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-Conveners: R. Mackay (Birmingham)
- 02 Identification of model parameters in groundwater hydrology**
Convener: M. Giudici (Milano), Co-Conveners: G. de Marsily (Paris)
- 03 Reactive mass transport: experimental studies of chemical, colloidal and biological processes**
Convener: P. Gouze (Montpellier), Co-Conveners: G. Schäfer (Strasbourg)
- 04 Coastal aquifer dynamics and groundwater recharge**
Convener: L. Candela (Barcelona), Co-Conveners: 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-Conveners: P. Ergenzinger (Berlin)
- 02 Morphological processes at the hillslope and river scale**
Convener: G. Roth (Genova), Co-Conveners: V. Copertino (Potenza)
- 03 Sediment and contaminant transfers at the land/ocean interface**
Convener: G. Leeks (Wallingford), Co-Conveners: 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-Conveners: F. Castelli (Perugia)
- 02 Prediction of hazardous events of meteorological origin**
Convener: S. Tibaldi (Bologna), Co-Conveners: S. Alonso (Palma de Mallorca)
- 03 Flood hazards and flood risk: regional analysis of extremes (co-sponsored by OA)**
Convener: P. Bois (St. Martin d'Herès), Co-Conveners: V. Oancea (Bucharest)
- 04 Modelling and flood mapping in rural and urban areas**
Convener: G. Oberlin (Lyon), Co-Conveners: G. Roth (Genova)
- 05 Shallow landslides and rainfall triggering**
Convener: M. Sorriso-Valvo (Roges di Rende), Co-Conveners: P. Versace (Montalto Uffugo Scalo)
- HSA5 Open session on hydrology and surface hydrological processes**
Convener: G. Kiely (Cork), Co-Conveners: 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-Conveners: 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-Conveners: K.-U. Totsche (Bayreuth)
- 02 New developments in in-situ treatment of subsurface contaminations**
Convener: H.H.M. Rijnaarts (Apeldoorn), Co-Conveners: T.N.P. Bosma (Apeldoorn)
- 03 Redox processes in aquifers**
Convener: P. Behra (Strasbourg), Co-Conveners: M. Isenbeck-Schröter (Heidelberg)
- HSA9 Hydrology and applied mathematics**
- 01 Process representation in hydrological models - can it be achieved?**
Convener: F. Gallart (Barcelona), Co-Conveners: 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-Conveners: 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. Chalou (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 compounds 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-Convener: J.-C. André (Toulouse), J.-M. Cariere (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-Convener: 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 thermo-
sphere**
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 magneto-
sphere: 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, thermo-
sphere, 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-space-
craft missions**
Convener: J.-A. Sauvaud (Toulouse),
Co-Convener: L.M. Zelenyi (Moscow)
- ST12** **Theory and simulations of solar system plas-
mas**
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 parti-
cle measurements**
Convener: M. Hilchenbach (Katlenburg-
Lindau), Co-Convener: V. Hansteen (Oslo)
**02 Multi-wavelength observations of solar
atmospheric structure, evolution and erup-
tions**
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 (Boul-
der, CO)
- ST16** **Stratosphere-troposphere-exchange** (*co-spon-
sored 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 im-
pact on aviation**
Convener: T. Hauf (Wessling), Co-Conve-
ners: 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 thermofluid-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 (Ilkirsch), 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-sponsored by OA*)
Convener: P. Bois (St. Martin d'Herès), 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				OA	Dynamics of the polar ocean and its coupling to sea ice I			
	EGS2	R1	08.45	p. 65		OA6	Calliope	08.30	p. 169
	Modelling techniques and joint inversion in Earth sciences					Extreme weather events in the Mediterranean			
	EGS3	R4	09.00	p. 66		OA12	Thalie	11.00	p. 178
SE	Open session on tectonophysics					Intercomparison and validation of the ocean-atmosphere flux fields I			
	SE1	R2	08.30	p. 68		OA14.1	Erato	09.00	p. 181
	Variations in the Earth's rotation: implications for the dynamics and structure of the mantle and for global change processes					West African monsoon studies			
	SE7	R2	11.00	p. 72		OA17.1	Euterpe	08.30	p. 188
	Fault interaction and earthquake mechanics					Biogeochemical interactions in the coastal marine environment			
	SE10	R3	08.30	p. 74		OA21	Clio	08.30	p. 198
	Active deformation along plate boundaries: measurements and models					Developments in weather forecasting I			
	SE17.2	Gallieni 5	09.00	p. 81	ST	Review session on solar-terrestrial sciences			
	The Trans European Suture Zone (TESZ)I					ST1	M7	11.00	p. 207
	SE19	Hermes	08.30	p. 83		Open session on solar and heliospheric physics I			
	Mechanics and thermalfluid-dynamics of volcanic processes: modelling, observations and laboratory experiments					ST5	M5	09.00	p. 213
	SE31	Athena	08.30	p. 92		Effects of geomagnetic storms and high-energy particle events on the ionosphere, thermosphere, and middle atmosphere			
	Archaeomagnetism and secular variations					ST9	M6	09.00	p. 218
	SE35.2	R11	08.30	p. 103		Aviation impact on the atmosphere			
	Electro-magnetic and electro-kinetic properties of rocks: integration of laboratory, borehole and field measurements					ST17.1	M8	08.30	p. 232
	SE41	R8	11.00	p. 112	PS	Evolution and state of surfaces, crusts and lithospheres of planetary bodies I			
	Collisional and transform plate boundaries and subduction zones					PS2	M1	11.00	p. 236
	SE47.4	R9	08.45	p. 117		Meteorites and cosmochemistry			
G	Geophysical applications of radar interferometry					PS8	M1	09.00	p. 245
	G3	R9	11.00	p. 123		Interrelations between asteroids, near-Earth asteroids and meteorites			
	Joint EGS/AGU Symposium on geodetic observation and geophysical interpretation of mass movements in the Earth system - Introduction					PS10	M4	09.00	p. 246
	G7	R5	08.30	p. 127		Observation of solar-system objects with ISO I			
	Solid Earth and core					PS11	M2	09.00	p. 246
	G7.1	R5	10.45	p. 127	NP	Scaling, multifractals and nonlinearity in Solid Earth			
	Instrumental challenges in geodesy					NP1.1	M9	09.00	p. 252
	G15	R7	09.00	p. 134		Dispersion in two-dimensional flows, mixing, anomalous diffusion, experiments, models and numerical simulations			
	Geodetic and geodynamic achievements of the CEI (Central European Initiative)					NP3.3	M3	09.00	p. 259
	G16	R10	08.30	p. 136		Shallow water experiments as models of geophysical and astrophysical flows			
HS	Identification of model parameters in ground-water hydrology					NP4.3	Iris	08.30	p. 265
	HSA1.2	Gallieni 3	09.00	p. 140	NH	Submarine landsliding			
	Morphological processes at the hillslope and river scale					NH1.2	Studio	11.00	p. 267
	HSA2.2	Mykonos	08.45	p. 143		Models and methods in seismic hazard assessment			
	Sediment and contaminant transfers at the land/ocean interface					NH3.1	R6	09.00	p. 271
	HSA2.3	Mykonos	11.00	p. 144		<hr/>			
	Open session on hydrology and surface hydrological processes					Opening & Award Ceremony and Society Lecture			
	HSA5	Gallieni 2	08.30	p. 145		Lecture Theatre Apollon			
OA	Open session on coastal/shelf-sea dynamics					17.00 Opening Ceremony			
	OA5	Uranie	08.30	p. 167		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	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								
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	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								
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	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								
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	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								
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 compounds 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	<h3 style="margin: 0;">Video & PC Points</h3> <p style="margin: 0;">Video (multinorm VHS)</p> <p style="margin: 0;">AGORA2- HS Area (lifts close to Apollon)</p> <p style="margin: 0;">RHODES - SE Area (escalator to Méditerranée)</p> <p style="margin: 0;">LES MUSES - OA Area (next to exit/entrance)</p> <p style="margin: 0;">Personal Computer</p> <p style="margin: 0;">RHODES - SE Area (escalator to Méditerranée)</p> <p style="margin: 0;">Tuesday-Thursday, 21-23 April, 08.00-19.00/19.30</p>									
ST	Open session on the middle atmosphere I ST2 M7 14.00 p. 207	<h3 style="margin: 0;">Open Section/IWG Business Meetings</h3> <p style="margin: 0;">Wednesday, 22 April, 12.00-14.00</p> <table border="0" style="width: 100%; margin: 0;"> <tr> <td style="width: 50%;">SE: R10</td> <td style="width: 50%;">ST: M8</td> </tr> <tr> <td>G: R5</td> <td>PS: M4</td> </tr> <tr> <td>HS: Gallieni 3</td> <td>NP: M3</td> </tr> <tr> <td>OA: Clio</td> <td>NH: R1</td> </tr> </table> <p style="margin: 0;">Sandwiches & Refreshments are complimentary</p>		SE: R10	ST: M8	G: R5	PS: M4	HS: Gallieni 3	NP: M3	OA: Clio	NH: R1
SE: R10	ST: M8										
G: R5	PS: M4										
HS: Gallieni 3	NP: M3										
OA: Clio	NH: R1										

TUESDAY, 21 APRIL - MORNING SESSIONS

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Society Symposia

EGS1 Tribute to Stephan Mueller .2 Evolution of the African-Eurasian plate boundary

EGS

EGS1 Tribute to Stephan Mueller .1 Tectonics, structure and dynamics of the Alpine-Mediterranean Sys- tem

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

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 Provençal 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 VANDER MEULEN, M.J.; MEULENKAMP, J.E.; WORTEL, M.J.R.; KOUWENHOVEN, T.J.; VANDEN BERG VAN SAPAROEIA, A.P.H.; VANDER 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 in the 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.
⁴⁰Ar/³⁹Ar 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 simulations 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.; DOROFYUK, 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.**; DOROFYUK, 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**

Introductory remarks

09:15 **BREUNING, M.**; CREMERS, A.B.; GÖTZE, H.-J.; SCHMIDT, S.; SEIDEMANN, R.; SHUMILOV, S.; SIEHL, A.

First steps towards an interoperable 3D GIS - an example from southern lower Saxony, Germany (Solicited Paper)

09:45 **SCHMIDT, S.**; GÖTZE, H.-J.

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.

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.**

The inverse problem for mantle viscosity: new results based upon joint inversion of glacial isostatic adjustment data (Solicited Paper)

11:15 **LOEWENTHAL, D.**

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.
Seismic events discrimination by a neuro-fuzzy merging of incomplete data

11:45 **STRYKOWSKI, G.**

Some technical details concerning a new method of joint gravimetric-seismic inversion

12:00 **KOBRUNOV, A.I.**; MOISEYENKOVA, S.V.;

KHOLODILOV, D.V.

To a technique of automated complex interpretation of geophysical data

12:15 **NIELSEN, L.**; JACOBSEN, B.J.; BALLING, N.

Joint gravimetric and wide-angle seismic inversion for crustal modelling with application 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.

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.

Multi-channel deconvolution in geophysics and helioseismology

14:30 **GAK, E.Z.**; **GRIDIN, V.I.**

The modelling techniques for studying the properties of geophysical fields in singular areas

14:45 **STEPANOVA, I.E.**

Integral equation for a 3D potential inversion problem

15:00 **STRAKHOV, V.N.**; **STEPANOVA, I.E.**;

STRAKHOV, A.V.; **GRICHUK, L.V.**

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.

Automatized system of 3-D gravity modelling: the main principles and software

15:30 **BARRIO-ALVERS, L.**; **GÖTZE, H.-J.**; **SCHECK, M.**

Density structure of the northeast German basin: 3D modelling along the DEKORP NE-profile

15:45 **ROMANYUK, T.V.**; **GÖTZE, H.-J.**

A density model of Andean subduction zone

16:00

ARANEDA, M.; **AVENDAÑO, M.S.**; **SCHMIDT, S.**; **GOETZE, H.J.**

Gravimetric modellings of the southern Andes (38°-42°S)

16:15 **BERCOVSKA, V.**

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 **SCHMIDT, S.; GÖTZE, H.-J.**

EGS3-002 Integration of data constraints and potential field modelling - an example from southern Lower Saxony

SE306 **SPAKMAN, W.; BIJWAARD, H.**

EGS3-020 Irregular cell parameterization of tomographic problems

SE307 **PISERCHIA, P.-F.; RODRIGUES, D.;**

EGS3-021 **VIRIEUX, J.; GAFFET, S.; LAMBARE, G.**

Numerical modelling of T-wave propagation

SE308 **MONTELLI, R.; NOLET, G.; VIRIEUX, J.**

EGS3-022 Calculating the resolution and the covariance matrix without using singular value decomposition

SE309 **KOBRUNOV, A.I.; MOISEYENKOVA, S.V.;**

EGS3-023 **KHOLODILOV, D.V.**

Construction of a detailed model of geological media based on solving a multiparametrical inverse problem

SE310 **BREUNING, M.; CREMERS, A.B.; GÖTZE,**

EGS3-024 **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 **KLESPPER, C.; SCHMIDT, S.; GÖTZE, H.-J.**

EGS3-025 Concept and examples of interactive visualization with IVIS-3D

SE312 **BIELIK, M.; HRUSECKY, I.; KOHUT, I.;**

EGS3-026 **KOSTECKY, P.**

Lithosphere structure of the sedimentary basins in the Carpatho-Pannonian region as inferred from interpretation of geophysical data

SE313 **MORDVINOVA, V.V.; KOSAREV, G.L.**

EGS3-027 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 **HERRERO, F.A.**

EGS4-001 In-situ measurements of the neutral and ionic components of the lower thermosphere: a review (Solicited Paper)

14:30 **PFAFF, R.F.**

EGS4-002 Exploration of the lower ionosphere and thermosphere using in-situ measurements on low perigee satellites

14:45 **GREBOWSKY, J.M.; CURTIS, S.A.**

EGS4-003 Geospace electrodynamics mission

15:00 **CLEMMONS, J.H.; HERRERO, F.A.; PFAFF, R.F.**

EGS4-004 New instrumental techniques for in-situ measurements in the lower thermosphere/ionosphere

15:15 **HERRERO, F.A.**

EGS4-005 Measurements of the altitude distribution of the horizontal wind with "weather-vanes" on a tether satellite

15:30 **PFAFF, R.F.**

EGS4-006 Electric field measurements in the lower ionosphere (80-150 km) using sounding rocket probes

15:45 **AVAKYAN, S.V.**

EGS4-007 Some purposes and methods of the satellite measurements of the ionospheric response on the solar flares

16:00 **CARROLL, J.A.; VAN DER HEIDE, E.J.;**

EGS4-008 **KRUIJFF, M.**

Options for coordinated multi-point sensing in the lower thermosphere

16:15 **LANEVE, G.**

EGS4-009 Small satellites for studies in the lower thermosphere

16:30 **ILLES-ALMAR, E.; ALMAR, I.; BENCZE, P.;**

EGS4-010 **LANEVE, G.**

Wave-like variations and sudden density decreases in the lower thermosphere as measured by the San Marco V satellite

16:45 **KOREPANOV, V.**

EGS4-011 Electrodynamic tether system

011

17:00 END OF SESSION

EGS



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: possible artefacts and new data (Solicited Paper)
- 09:00 DEUSS, A.; PAULSEN, 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.T.H.
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 GEODYSSSEA 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 elasto-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 genesis 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.; BORGIO, S.**
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.; SABADINI, R.**
SE6-007 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 Fennoscandia 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.; HEFLIN, M.B.**
SE6-011 Glacial isostatic adjustment from space geodesy
- 15:15 **DAVIS, J.L.; JOHANSSON, J.M.; MITROVICA, J.X.; MILNE, G.; SCHERNECK, H.-G.**
SE6-012 Determinations of mantle viscosity and ice history model parameters from project BIFROST GPS data
- 15:30 **WAHR, J.; VAN DAM, T.; LARSON, K.; ROBERTSON, D.; FRANCIS, O.**
SE6-013 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.; FASTOOK, J.L.**
SE6-015 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 **BORETTI, E.**; GIUNCHI, C.; SABADINI, R.
SE6-017 3D viscosity variations and post-glacial rebound
- SE315 **HANYK, L.**; MATYSKA, C.; YUEN, D.A.
SE6-018 Instability of compressible viscoelastic models
- SE316 **VERMEERSEN, L.L.A.**; MITROVICA, J.X.
SE6-019 Gravitational stability of viscoelastic relaxation models
- SE317 **MÄKINEN, J.**
SE6-020 Absolute-gravity measurements in Finland to study the Fennoscandian postglacial rebound
- SE318 **KAUFMANN, G.**; LAMBECK, K.
SE6-021 Implications for Pleistocene glaciation of the Tibetan Plateau on present geodetic observables
- SE319 **LE MEUR, E.**; HUYBRECHTS, P.
SE6-022 A coupled ice sheet-viscoelastic Earth model as a tool to assess the present-day imbalance of the Greenland ice sheet
- SE320 **GRUSHINSKY, A.N.**; KORYAKIN, E.D.;
SE6-023 **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 rotation 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.
Lateral diapiric emplacement of triassic evaporites at the southern margin of the 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.J.A.**
The quantitative estimation of geological characteristics of sedimentary basins 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 lithosphere to (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 Roer 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 evolution
- 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 ⁴⁰Ar/³⁹Ar mica ages
- 12:45 LUNCH

Chairperson: Ben-Avraham, Z.

- 14:00 **KLESER, 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 rupture (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.**
Holocene kinematics of the Fucino basin (central Appennines, 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)

SE

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 in 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 growth 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 Prised 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 seismicity 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

- 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 dynamism of the Kenya rift (Poster)

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

- 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 dynamics 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.; WOHLBERG, 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 SOUPIO, P.; AYARZA, P.; JUHLIN, C.; PAPAACHOS, 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.; RYBALK, A.
Structure of the upper crust in SG4 borehole area from vertical incidence 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

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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 incidence 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.; CATTANEO, M.; PAUL, A.; THOUVENOT, F.; AUGLIERA, P.; GUIGUET, R.; JENATTON, L.; LANZA, V.; PEDERSEN, H.; SPALLAROSSA, D.; SUE, C.; GEOFF 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: Piffner, 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 Brittany: 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 radiochronological investigations 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.; CUNNEY, M.; AMEGLIO, L.
SE16-018 Multiscale global 3D inversion on granitic plutons in the Massif Central France
- 16:30 END OF SESSION

SE

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 surface waves in the French Alps by a dense broad-band station array
- SE053 **JUDENHERC, S.; GRANET, M.; ACHAUER, U.; MOCQUET, A.; POUPINET, G.**
SE16-021 3D imaging of the Hercynian suture in the French "Massif Armoricaïn"
- SE054 **GALDEANO, A.; ASFIRANE, F.; TRUFFERT, C.; CAUVIN, C.**
SE16-022 The Aeromagnetic map of Cotentin (NW France)
- SE055 **ASFIRANE, F.; BOUCHOT, V.; VIALLEFOND, L.; FEYBESSE, J.L.; BOURGUIGNON, A.; TRUFFERT, C.**
SE16-023 A new compilation of the aeromagnetic data of Massif Central, correlation to geological and geochemistry data (Geofrance 3D project)
- SE056 **TRUFFERT, C.; BOUCHOT, V.; VIALLEFOND, L.; CALCAGNO, PH.; COURRIOUX, G.; THIBAUT, M.; ROIG, J.Y.; MILESI, J.P.**
SE16-024 3D gravity modelling of the south Limousin: insights of the gravity-geochemistry anomaly relationships
- SE057 **MARTELET, G.; DIAMENT, M.; CHARONNAT, X.; FAURE, M.**
SE16-025 A detailed gravity survey in Cevennes (south-east Massif Central): constraints on the 3-D crustal structure
- SE058 **AMEGLIO, L.; TARDIF, H.; VIGNERESSE, J.L.; LE CARLIER DE VESLUD, C.; GEOFRANCE 3D TEAM**
SE16-026 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: Kiliyas, 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 complexes 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: Kiliyas, A.

Co-Convener(s): Ring, U.

Friday, 24 April 1998

Lecture Room: R3

Chairpersons: Ring, U.; Kiliyas, 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 $^{39}\text{Ar}/^{40}\text{Ar}$ 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 Laptev Sea in north-eastern Siberia
- 12:30 **MATOVA, M.**
Block mosaic and seismic manifestations in Bulgaria
- 12:45 **BETHOUX, N.; CALAIS, E.; OUILLOIN, 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 intenter 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 strength 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 Mountains (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.; MILDEPIORKO, 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.; MENSNIKOV, 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.; RABELL, 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.; MAKRIK, 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 crystalline 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 Tornquist 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 **RABELL, 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.; **RABELL, W.**; WOELBERN, I.; **TOR WORKING GROUP**, **DEKORP WORKING GROUP**
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 Podhale 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 **PANAOTU, C.**; **PANAOTU, C.E.**; **PICKSKAY, 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, outer 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 accre-
tionary 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: dynam-
ic 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 tatic 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.; SWIERCZEWSKA, 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-tempo-
ral structure of seismogeoaoustic 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 development
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 structural
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 system
- 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 structure 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.**; NERCESSIAN, 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.**; MAUFFRET, 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 area
- 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 archaic 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 **RABEL, W.**; BOHLEN, TH.; POHL, M.; SIEGSMUND, 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: Rabel, 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: Rabel, 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 **TITTEMEYER, 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 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 area 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 earthquake size 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.; FERRELLI, 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

* not included in the Book of Abstracts

- 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 displacement during the Colfiorito (central Italy) earthquake retrieved by SAR interferometry *

- 13:00 END OF SESSION

Stand-by paper:

FRANCESCHETTI, G.; SALVI, S.; SANSOSTI, E.; STRAMONDO, S.; TESAURO, M.

Coseismic surface displacement 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

SE

- 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 Calforito'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 after-shocks 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 OPRAL, 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.
Pseudospectral 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

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: numerical 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 SARAQ, 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

* not included in the Book of Abstracts



- SE192A **POPA, M.; RADULIAN, M.**
Testing of the empirical Green's function 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. Vesuvius, 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-spreading 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 crust 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-thermofluid-dynamical model for Campi Flegrei unrest episodes: possible evolution 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-H₂O 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 PAPAIE, 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 of 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 thermofluid-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 thermofluid-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 BEAUDUCCEL, 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. spherical 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 comparison between analytical and numerical solutions for point and extended sources
- 15:45 MARTI, J.; SORIANO, C.; TURON, E.; VIRAMONTE, J.G.
Collapse calderas developed on strike-slip faults
- 16:00 ANNEN, C.; LENAT, J.-F.; PROVOST, A.
Modelling of dike intrusions and volcano 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 rhyolitic 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 **STAÜDACHER, 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 pulses
- 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.; WOHLLETZ, 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

SE

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- Lake Paríngá: a catchment study using magnetic
002 techniques (Poster)
14:10 **RUMPLER, D.; BROSS, C.; KÖSSLER, P.;**
SE34.1- **APPEL, E.; BIBUS, E.**
003 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.; ÖZDEMİR, Ö.; SCHMIDT, P.W.;**
SE34.1- **CLARK, D.A.**
005 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- Theoretical models of magnetic anisotropy to strain
006 considering triaxial magnetic particles (Poster)
14:40 **IBRAGIMOV, S.Z.; YASONOV, P.G.**
SE34.1- The study of composition and size of disintegration
007 structures of titanomagnetite using thermomagnetic analysis (Poster)
14:45 **IVAKHNENKO, A.P.; SUKHORADA, A.V.**
SE34.1- New data about petromagnetic criterions
008 gold-bearing crustal basement (Poster)
14:50 **KUBLER, L.**
SE34.1- The magnetic signature of pyrrhotite bearing
009 metasedimentary rocks (Poster)
14:55 **MATHE, P.-E.; HENOCQUE, O.; VANDAMME,**
SE34.1- **D.; ROCHETTE, P.; MAKAYA, M.**
010 Magnetic characterization of manganese oxides from the Tambao lateritic ore deposit (Burkina-Faso) (Poster)
15:00 **MATTSSON, H.; ELMING, S.-A.**
SE34.1- A rock magnetic study of a regional deformation
011 zone in the Fennoscandian shield (Poster)
15:05 **MÖRNER, N.-A.**
SE34.1- Increased NRM intensity due to seismic vibration
012 (Poster)
15:10 **ÖZDEMİR, Ö.; DUNLOP, D.J.**
SE34.1- Origin of coercivity in multidomain magnetite
013 (Poster)
15:15 **PETROVSKY, E.; KAPICKA, A.; JORDANOVA,**
SE34.1- **N.; GEORGEAUD, V.; ROCHETTE, P.**
014 Effect of maximum applied magnetic field on the shape of hysteresis loops (Poster)

- 15:20 **THOMPSON, R.; HARRISON, A.; DERRICK, S.**
SE34.1- Unusual low-temperature hysteresis and
015 thermomagnetic behaviour of basalts from Tenerife (Poster)
15:25 **URBAT, M.; DEKKERS, M.J.**
SE34.1- Peru basin sediments: clues as to alterations to the
016 NRM (Poster)

15:30 Change over

Palaeomagnetism

- 15:40 **BORRADAILE, G.J.; WERNER, T.; LAGROIX, F.**
SE34.1- Anisotropy-controlled thrusting of Archean lower
017 crustal rocks: a rock magnetic study at Kapuskasing, Canada (Poster)
15:45 **EDEL, J.B.; HUMBERT, C.; HONNOREZ, J.**
SE34.1- Asynchronous magnetic overprints in the Visean
018 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- **DAUTRIA, J.M.**
019 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- Palaeointensity results using microwave
020 demagnetisation/remagnetisation (Poster)
16:00 **LEWANDOWSKI, M.; ABRAHAMSEN, N.**
SE34.1- Cambro-Ordovician palaeomagnetic results from
021 Bornholm (Denmark), and implications for the drift and rotation of Baltica (Poster)
16:05 **SCHILL, E.; APPEL, E.; GAUTAM, P.; SINGH,**
SE34.1- **V.K.**
022 Metacarbonates from the Lesser Himalaya: do they have potential for palaeomagnetic studies? (Poster)
16:10 **WERNER, T.**
SE34.1- Kinematic relations between magnetic (AMS,
023 AARM) and tectonic fabrics for the Niemcza fault zone, Sudetes foreland, SW Poland (Poster)
16:15 **RESHETNYAK, M.**
SE34.1- Temporal spectra of SV (Poster)
024
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.
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 Paríngá: 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.; ÖZDEMİR, 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 ÖZDEMİR, 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 shape 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 GOGUTCHAICHVILI, 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.
Metacarbonates 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 foreland, 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.; Schnepf, 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 for 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 "a_w"-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 directional 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 loesses 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.; Schnepf, 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 transition in the Matuyama from the Jordan rift, northern Israel
- 13:00 LUNCH

Chairperson: Schnepf, 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 AMS¹⁴C
- 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 ÖZDEMİR, 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 (Fe₃S₄): 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, Ü.**; PREVOT, M.; POIDRAS, T.
SE34.3-007 CRM experiments and pseudo-paleointensity measurements on basaltic rocks with initially low Curie temperatures
11:45 **VLÁG, 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 oil 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-palaeosol 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 **VLÁG, 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, C.H.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 magnetic 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.**; **MERDADI, 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)

SE

- 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 **AVERBÜCH, 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 magnetic 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 magnetic 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 LEVEQUE, F.; LECOANET, H.; MATHE, P.-E.;
 SE34.5- VANDAMME, D.; BEN-ATIG, F.; VERON, A.;
 001 AMBROSI, J.-P.

Monitoring of anthropogenic heavy metals accumulated in contaminated soils: potential of magnetic properties approach on multisource zone

14:15 VAN OORSCHOT, I.H.M.; DEKKERS, M.J.
 SE34.5- Parameters affecting the dissolution rate of magnetite
 002 and maghemite in the CBD extraction technique

14:30 GEORGEAUD, V.M.; AMBROSI, J.-P.;
 SE34.5- ROCHETTE, P.; BOTTERO, J.Y.
 003 Heavy metal sorption onto magnetite: case study of cadmium

14:45 SCHOLGER, R.
 SE34.5- Standardization of magnetic susceptibility measurements: calibration of laboratory and field instruments
 004 (Poster)

14:50 PETROVSKY, E.; HRABAK, P.; KAPICKA, A.;
 SE34.5- JORDANOVA, N.
 005 Comparison between magnetic and geochemical mapping of soil contamination in Prague (Poster)

14:55 RAKHMATULLIN, R.; RAVILOVA, N.
 SE34.5- Content of heavy metals and magnetic properties of
 006 soils in Kazan, Russia (Poster)

15:00 KNAB, M.; APPEL, E.; HOFFMANN, V.
 SE34.5- Magnetic measurements for the detection of roadside
 007 pollution: distribution of heavy metal contamination (Poster)

15:05 ZERGENYI, R.S.; HIRT, A.M.; LANCI, L.;
 SE34.5- LOWRIE, W.; LÜSCHER, P.

008 Magnetic mapping of soils in Alpine area
 15:20 KAPICKA, A.; PETROVSKY, E.; JORDANOVA,
 SE34.5- N.; HOFFMANN, V.; ZAPLETAL, K.

009 Search for atmospherically deposited fly-ash magnetite in soils using magnetic characteristics

15:35 BITYUKOVA, L.; SCHOLGER, R.; BIRKE, M.
 SE34.5- Magnetic susceptibility as indicator of environmental
 010 pollution of soils in Tallinn (Estonia)

15:50 STRZYSZCZ, Z.; MAGIERA, T.
 SE34.5- Magnetic susceptibility and lead and zinc concentration
 011 in forest topsoil from the border ranges of Poland, Slovakia and Czech Republic

16:05 MAGIERA, T.; STRZYSZCZ, Z.
 SE34.5- Using of magnetic susceptibility measurement as a
 012 preliminary method in study of soil pollution in Swierklany district (Katowice Prowince - south Poland)

16:20 HIRT, A.M.; BÄCHLER, D.; LANCI, L.;
 SE34.5- ZERGENYI, R.; STURM, M.; LOTTER, A.F.

013 Magnetic properties and iron cycling for the last 110 years in the Baldeggersee, Switzerland

16:35 WIDEMANN, D.; VEROSUB, K.L.; MOUNT, J.
 SE34.5- Evidence for anthropogenic increase in the flux of
 014 ferromagnetic material into the Clear Lake Basin, northern California

16:50 MÖRNER, N.-A.
 SE34.5- Environmental magnetism: identification of the onset
 015 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 SCHOLGER, R.
 SE34.5-004 Standardization of magnetic susceptibility measurements: calibration of laboratory and field instruments

SE263 PETROVSKY, E.; HRABAK, P.; KAPICKA, A.; JORDANOVA, N.
 SE34.5-005 Comparison between magnetic and geochemical mapping of soil contamination in Prague

SE264 RAKHMATULLIN, R.; RAVILOVA, N.
 SE34.5-006 Content of heavy metals and magnetic properties of soils in Kazan, Russia

SE265 KNAB, M.; APPEL, E.; HOFFMANN, V.
 SE34.5-007 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.; KRISOVA, 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 RABEL, 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 valleys 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.; NAISET, 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 carrying 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 of Vesuvius pyroclastics 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 isostasy 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 application 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 automat-ed 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 orthogonal 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 ultramafic 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 tectonic 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 SE37-016 KARATAEV, G.; KARAGODINA, O.; SAS-UHRYNOWSKI, A.; MROCZEK, S.
Establishment of magnetic secular variation network in Belarus
- SE354 SE37-017 DEMINA, M.; KASYANENKO, L.G.; SAS-UHRYNOWSKI, A.; WELKER, E.
Magnetic atlas of the Baltic Sea
- SE355 SE37-018 KHARITONOV, A.L.; ODINTSOV, S.D.; ROTANOVA, N.M.; TSVETKOV, YU.P.
Magsat magnetic anomaly fields for Europe and Asia
- SE356 SE37-019 AHMED, F.M.; DEEBES, H.
Magnetic survey of Ras Gharib area in Egypt for petroleum exploration
- SE357 SE37-020 MIHAJLOVIC, J.S.; POPESKOV, D.; OBRADOVIC, M.
IGFR model and geomagnetic repeat station surveys in Yugoslavia
- SE358 SE37-021 SAILHAC, P.; GALDEANO, A.; GIBERT, D.; MOREAU, F.; DELOR, C.
Magnetic sources characterization in Guyana inferred 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 variation with 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.; DUMA, G.; FREDOW, M.; HEJDA, P.; HORACEK, J.; SAS-UHRYNOWSKI, A.; ZOLTOWSKI, Z.**
SE37-005 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 MOUEL, J.-L.; RASMUSSEN, O.**
SE37-007 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 Gadawara area, and its implication in the Narmada-Son Lineament (NSL), India
- 12:45 **GREEN, A.W.; HEGYMEGI, L.; KÖRMENDI, A.; PANKRATZ, L.W.; SAUTER, E.A.**
SE37-015 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**

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, J.-M.**
SE38-001 The "global land 1km AVHRR data set" project: ESA activities in data collection, processing and distribution
- 14:15 **KERR, Y.H.; GUILLOU, C.; LAGOUARDE, J.P.; NERRY, F.; OTTLE, C.; ARINO, O.**
SE38-002 Global land surface temperature retrieval from NOAA AVHRR data
- 14:30 **ARINO, O.; MELINOTTE, J.-M.; BUONGIORNO, A.**
SE38-003 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, P.**
SE38-005 Production of tropical forest distribution maps using remote sensing data at a global scale
- 15:15 **BERTHELOT, B.; KERGOAT, L.; CABOT, F.; DEDIEU, G.; MAISONGRANDE, P.**
SE38-006 LASUR: the land surface reflectance data for 1989-1990
- 15:30 **WEISS, M.; BARET, F.**
SE38-007 What are the canopy biophysical variables that can be estimated from large swath satellite 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.**
Limitations in identification of lake sediment layers by using precise geoelectric soundings

Attend the Business Meeting of your Section

on Wednesday, 22 April, 12.00-14.00, Lecture Room R10

SE

- 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 **KULENKAMPPF, 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 along the GSI 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-geolectrical deep soundings in combination with modern inversion technologies: a tool to investigate geological structures
- SE391A **KIREENKOVA, S.M.**; EFIMOVA, G.A.
The anomalous 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

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- 3D imaging of porous media and application to
001 microscale modelling of transport properties (Solicited Paper)
- 09:30 **DAVIDSON, G.**; **PETFORD, N.**; **MILLER, J.A.**
SE39.2- Visualisation of pore structure geometry using
002 confocal scanning laser microscopy
- 09:45 **THOVERT, J.-F.**; **SPANNE, P.**; **JACQUIN, C.G.**;
SE39.2- **ADLER, P.M.**
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- Imaging and analyzing rock porosity by autoradiography and HG-porosimetry/computertomography
004
- 10:15 **ZANG, A.**; **WAGNER, F.C.**; **STANCHITS, S.**;
SE39.2- **DRESEN, G.**
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- Fracture network versus single fractures: measurement of fracture geometry with X-ray tomography
006
- 10:45 **BREAK**

Chairperson: Rodriguez Rey, A.
Editors: David, C.; Olgaard, D.L.; Rodriguez Rey, A.

- 11:15 **EHRlich, R.**
SE39.2- Strong relationships between image data and sandstone physical properties (Solicited Paper)
007
- 11:45 **BELIN, S.**; **ANGUY, Y.**; **BERNARD, D.**; **FERM, J.B.**; **FRITZ, B.**
SE39.2- Modelling physical properties of sandstone reservoirs by blending 2D image analysis data with 3D capillary pressure data
008
- 12:00 **ANGUY, Y.**; **BERNARD, D.**
SE39.2- Is it possible to characterize the geometry of a real porous medium by a direct measurement on a finite section?
009
- 12:15 **ANSELMETTI, F.S.**; **LUTHI, S.**; **EBERLI, G.P.**
SE39.2- Quantitative characterization of carbonate pore systems by digital image analysis
010
- 12:30 **LUNCH**

Chairperson: Olgaard, D.L.
Editors: David, C.; Olgaard, D.L.; Rodriguez Rey, A.

- 14:00 **SOLYMAR, M.**
SE39.2- Image analysis, and estimation of porosity and permeability of Arnager Greensand, upper Cretaceous, Denmark
011
- 14:15 **LINDQUIST, W.B.**
SE39.2- Investigating three dimensional geometry of porous media from high resolution images
012

Attend the Poster Session

- 14:30 **SAMMARTINO, S.**; PATRIER, P.; SARDINI, P.;
SE39.2- MEUNIER, A.; TEVISSSEN, E.
013 Alteration influence on microporosity connectivity of
Charroux-Civray tonalite
- 14:45 **HROUDA, F.**; HANAK, J.; TERZIJSKI, I.
SE39.2- Pore fabrics of ceramic models investigated by
014 magnetic anisotropy
- 15:00 **O'CONNOR, R.M.**; FREDRICH, J.T.;
SE39.2- STOCKMAN, H.W.
015 Microscale flow modelling in geologic materials
- 15:15 **DU PLESSIS, J.P.**
SE39.2- Introducing a percolation threshold in pore-scale
016 modelling
- 15:30 **SARDINI, P.**; SAMMARTINO, S.; MOREAU, E.
SE39.2- Simulation of 2D granite crack systems from image
017 analysis and stereological data
- 15:45 **ZIMMERMANN, G.**; BURKHARDT, H.
SE39.2- Fluid pathways in crystalline rock
018
- 16:00 **LADD, A.F.**; **BLAIR, S.**
SE39.2- 3-D deformation analysis based on high resolution
019 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.;
SE39.2-021 MAZEROLLE, F.; TILLARD, D.
Evidence of the material nature influence on the
brittle rupture style
- SE394 **RUIZ DE ARGANDO, V.G.**; **RODRIGUEZ**
SE39.2-022 **REY, A.**; CELORIO, C.; CALLEJA, L.;
SUAREZ DEL RIO, L.M.; LLAVONA, J.
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,
SE39.2-023 J.-D.
Infinite cluster imaging: experimental aspects of
wood's metal intrusion in Fontainebleau sand-
stones
- SE396 **MENENDEZ, B.**; RODRIGUEZ-REY, A.;
SE39.2-024 MONTOTO, M.
Estimation of pore geometry parameters in rocks
from single sections by stereology
- SE397 **MOREAU, E.**; SAMMARTINO, S.;
SE39.2-025 TOUCHARD, G.
2D and 3D geometry of soils: pore size distribu-
tion and percolation paths

- SE398 **DUBOIS, C.**; GAVIGLIO, P.; THEMIER, F.;
SE39.2-026 POINTEAU, I.
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 chenalizations of fluids and
consequences on fluid-rock interactions
- SE400 **CARRIO SCHAFFHAUSER, E.**; GAMOND,
SE39.2-028 J.F.; HENRIOT, O.; CHAMILLET, J.
The grain scale localisation processes: experi-
mental study on lacustrine clays
- SE401 **DELERUE, J.F.**; YU, Z.Y.; MA, S.D.;
SE39.2-029 PERRIER, E.
A new method of skeleton extraction and appli-
cation for 3D soil images

**SE39 Physical properties of geomaterials
.3 The effect of rock micro-structure
and fluids on rock physical proper-
ties - 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 **RUSINIAC, 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.; DUYSSTER, J.;
SASS, J.
The effect of water-saturation on thermal conduc-
tivity

**SE39 Physical properties of geomaterials
.3 The effect of rock micro-structure
and fluids on rock physical proper-
ties**

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.; ANGUIY, 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 **KULENKAMPPF, 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.; DUYSER, 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: Kumpel, H.-J.

Co-Convener(s): Grasso, J.-R.

Wednesday, 22 April 1998

Lecture Room: R11

Chairpersons: Grasso, J.-R.; Kumpel, 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 **CHERNAVSKI, 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.; KRUEHL, 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 migmatites: 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 **TEVISSSEN, 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**

SE

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 **REVL, 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, E.; MÖLLER, P.
SE41-003 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 a precursor to failure
- 14:30 **GARAMBOIS, S.**; DIETRICH, M.
SE41-008 Seismo-electric propagation in porous media: field experiments and theoretical studies
- 14:45 **PERRIER, F.**; TRIQUE, M.; LORNE, B. AVOUAC, J.-P.; HAUTOT, S.; TARITS, P.
SE41-009 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, P.-A.; MARTINOVIC, M.
SE41-013 The electrical conductivity of the crust 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.; ANTSIFIROV, A.V.; VLASOV, Y.T.; SOLDATENKO, V.P.; ROKITYANSKY, I.I.
SE41-017 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.; ANTSIFIROV, A.V.; VLASOV, Y.T.; SOLDATENKO, V.P.; ROKITYANSKY, I.I.**
SE41-017
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 waste repository
- 15:45 **LESPINASSE, M.; CATHELINIEAU, 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 **KNIFE, 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 fluids 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 interpretation 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 conductive 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

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SE

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.; HAAK, V.; DWIPA, S.; ARSADI, E.; MAHFI, A.; BYRDINA, S.; HOFFMANN-ROTHER, A.

SE44-003 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.; SINISCALCHI, A.

SE44-005 Magnetotelluric profiles in southern Apennines

10:00 DI MAURO, D.; VOLPI, G.; MANZELLA, A.; ZAJA, A.; PRATICELLI, N.; CERV, V.; PECK, J.; DE SANTIS, A.

SE44-006 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 mechano-electrical 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, Y.T.

SE44-014 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, F.

SE44-017 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 tectonic active zones (Vrancea area) by MT soundings

SE374 MAGUNIA, A.; SIMPSON, F.; WATERMANN, J.

SE44-020 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 asymmetric 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 the 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**

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.**; **MINSHULL, 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

- 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)

* not included in the Book of Abstracts

- 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 velocities
- 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 Cascadia 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

SE

- 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 occurrence, 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 in the Natal Valley, off-shore southeastern Africa
- SE462 **COLWELL, F.S.**; DELWICHE, M.; **WEINBERG, D.M.**
Biological activity, relative sediment permeability, and seismic events

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, oxygen and hydrogen 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 Cascadia 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**

Attend the Poster 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 Mediterranean: 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 Prised 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 north-eastern 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 Prised 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, V.A.; ZAIKIN, A.N.; POZHARSKI, E.V.; ZENCHENKO, T.A.; KONRADOV, A.A.
SE52-002 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 family 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 family 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

SE

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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 gravimeters in 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.; SMITHER, C.; MOLENDIJK, R.E.
G2-002 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.; SOARES DE CARVALHO, G.
G2-004 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, F.; PUGLISI, C.; ROMAGNOLI, C.; SILENZI, S.; VALPREDÀ, E.; VERRUBBI, V.
G2-006 Quaternary and holocene differential movements in a Mediterranean coastal area (S. Vito Lo Capo - Sicily - Italy)
- 11:10 MORHANGE, C.; BOURCIER, M.; GOIRAN, J.P.; LABOREL, J.; BATS, M.; GIALANELLA, C.; GRIMACO, L.
G2-007 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 inter-ferometry

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 inter-ferometry - 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
Iceland 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; Pyre-
nees, 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 surfac-
es

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
- 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**

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

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.; MASSETTI, E.**
G5-001 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, D.; BALMASEDA ALONSO, M.; STOCKDALE, T.**
G5-003 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 **VILLARÉS, 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, R.;
G5-020 **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 altimeter data for CEOF and along-track analysis in the eastern Atlantic Ocean and western Mediterranean Sea (Poster)
- 16:15 **SCHARROO, R.**; NAEIJE, M.; OLDENBORG, G.J.;
G5-026 **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
G5-010 **DARR, D.**; THOMPSON, L.A.; KELLY, K.A.; VIVIER, F.
Modelling wind-forced seasonal-to-interannual variability of sea surface height in the North Pacific
- G058
G5-011 **KURAPOV, A.L.**; KIVMAN, G.A.
General inverse of a shelf tide model: application to the M₂ tide in the Barents Sea
- G059
G5-023 **MORROW, R.**
Interannual variability in the eastern Indian Ocean
- G060
G5-024 **LEBEDEV, S.A.**
The diagnostic analysis of baroclinic ocean dynamics by satellite altimetry data
- G061
G5-025 **MARTINEZ BENJAMIN, J.J.**; GUASCH, A.; SARIFFENA, D.; CORREDOR, R.
Application of Topex/Poseidon altimeter data for CEOF and along-track analysis in the eastern Atlantic Ocean and western Mediterranean Sea
- G062
G5-026 **SCHARROO, R.**; NAEIJE, M.; OLDENBORG, G.J.; BURGERS, G.; CARDON, K.; GORYL, P.; BENVENISTE, J.
Monitoring the 1997/1998 El Nino by ERS-2
- G063
G5-027 **BOSCH, W.**; **SCHMIDT, M.**
EOF- and wavelet analysis of the sea surface variability
- G064
G5-028 **KNUDSEN, P.**
High resolution mean sea surfaces from multi mission satellite altimetry
- G065
G5-029 **KNUDSEN, T.**
An integrated system for handling, analysis and visualization of ocean data
- G066
G5-030 **PAULUHN, A.**; CHAO, Y.
Tracking eddies in the subtropical north-western Atlantic Ocean
- G067
G5-031 **BAUMGARTNER, M.**; BOSCH, W.; BOCK, J.; SCHMIDT, M.
North Atlantic sea surface variability - a comparison between altimetry and numerical modelling
- G068
G5-032 **GILLE, S.T.**
Evaluating southern ocean response to wind forcing
- G069
G5-036 **DADOU, I.**; GARCON, V.
Mesoscale variability of chlorophyll and SST in the confluence of the Brazil and Malvinas currents from satellite data
- G069A
G5-037 **TYLER, R.H.**; SANFORD, T.B.; OBERHUBER, J.M.
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.; BRICAUD, A.; GARCON, V.; DADOU, I.
G5-034 **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 Mesoscale 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, J.M.
G5-037 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, laser 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)

G

- 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/Poseidon (1993-1996)
- 17:00 END OF SUB-SESSION
- 17:00 Opening
- 19:30 Reception

**G7 Joint EGS/AGU symposium on geodetic
observation and geophysical interpreta-
tion 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 glacio-
logical research (Solicited Paper)
- 09:00 SCHUTZ, B.E.
Spaceborne laser altimetry for cryosphere applica-
tions (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 interpreta-
tion 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 interpreta-
tion 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.; WAT-
SON, 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 atmo-
sphere 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 rang-
ing: 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 enve-
lopes, the Moon, the Sun and geodynamic conse-
quences
- 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 coastal areas (Solicited Paper)
- 09:30 REVA, Y.U.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 procedure for super near real-time continuous 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.; WEHRENFENNIG, A.; REIGBER, CH.; FÖRSTE, CH.; KÖNIG, R.
Atmosphere/ionosphere sounding using GPS radio occultation measurements onboard CHAMP
- 10:15 KORNBLUEH, L.; GORBUNOV, M.; BENGTTSSON, L.
Simulation of full data assimilation cycle comparison
- 10:30 FOELSCH, 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.; FOELSCH, 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 study of 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 levelled 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 quasi-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 ZHANG, K.; FEATHERSTONE, W.E.; DING, X.L.
G11-014 An accuracy estimation of gravimetric terrain corrections
- G071 DUQUENNE, H.
G11-015 QGF98, a new solution for the gravimetric quasi-geoid in France
- G072 BARLIK, M.
G11-016 Investigations of the Earth figure by gradientometric determinations
- G073 KENYERES, A.
G11-017 The completion of the nationwide GPS-gravimetric geoid solution for Hungary
- G074 TZIAVOS, I.N.; ANDRITSANOS, V.D.
G11-018 Recent geoid computations for the Hellenic area
- G075 FIANI, M.; SANNA, G.
G11-019 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.; KARALLOTIS, 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 Belgian 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.; BERROSO, 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 biases 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, G.; ROWE, C.; COOPER, S.; SCHLÜTER, W.; SEEGER, H.
G15-005 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, N.E.
G15-011 Testing of VLBI site data acquisition and registration equipment with a correlator use
- 12:15 CANNON, W.H.; FEIL, G.; FEIR, B.; NEWBY, P.; NOVIKOV, A.; DEWDNEY, P.; CARLSON, B.; POPELAR, J.; PETRACHENKO, W.T.; KLATT, C.; BERUBE, M.
G15-012 The S2 VLBI system
- 12:30 LUNCH

Chairperson: Tomasi, P.
Editors: Degnan, J.J.; Tomasi, P.

- 14:00 SCHLÜTER, W.; BÖER, A.; DASSING, R.; HASE, H.; SEEGER, H.; SPERBER, P.; KILGER, R.
G15-013 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.; HAMAL, K.
G15-016 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, A.
G15-019 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.; KOYAMA, Y.; IMAE, M.
G15-021 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.; NEUKUM, G.; SCHOLTEN, F.
G15-024 High resolution acquisition of topographic surfaces with the High Resolution Stereo Camera (HRSC) (Poster)
- 15:40 BERRY, P.A.M.; BRON, E.
G15-025 Independent 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.; HAMAL, K.
G15-016 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.; SINCLAIR, A.
G15-019 The EUROLAS stations as an effective satellite tracking cluster
- G013 IPATOV, A.V.; KOLTSOV, N.E.; TSAREV, V.I.
G15-020 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: Czarniecki, 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.; ZABLOTSKI, F.
The Central Europe Geodynamics Oproject (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 (Poster)
- 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 with 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 with 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 *

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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 models 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
discrimination, characterization and site model
development
- 10:00 **MCDERMOTT, C.**; SAUTER, M.; LEIDL, R.;
TEUTSCH, G.
Using the aquifer analogue principle for the investi-
gation of the fractured porous system: new techni-
ques 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: reconstruction, 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 conductivi-
ty 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 relation-
ship 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.; SENNIKOV, 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 ground-
water 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 hydrau-
lic conductivity

HS

- 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, conditioned 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 identifi-
cation 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 unsaturat-
ed flow in a heterogeneous formation
- 14:15 CAPILLA, J.E.; GOMEZ-HERNANDEZ, J.J.;
RODRIGO, J.; SAHUQUILLO, A.
Stochastic inversion integrating exhaustive geophysic-
al 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 uncertain-
ty

Chairperson: Rosbjerg, D.

- 15:15 ADAR, E.M.
Assessment of transmissivities in arid alluvial basin
by a mixing cell model applied to spatial hydro-
chemical 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 TOTSCHKE, K.U.; IGLER, B.; KNABNER, P.
Unbiased identification of nonlinear sorption charac-
teristics by soil column outflow experiments
- 16:15 ZECHNER, E.; SAIERS, J.E.; GÉNEREUX, 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

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**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 characteristics 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: experi-
 mental 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, partitioning 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 chemical 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 simulation of leachate flux and the transport of non-conservative, organic pollutants
- 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.**
HS1.4-008 Chemical evidence of surface water infiltration in the Castellon plain aquifer, Spain
- HS035 **MORELL, I.; GIMENEZ, E.; TULIPANO, L.; FIDELIBUS, M.D.**
HS1.4-009 Seawater intrusion and saline regional waters. A synergic salinization

- HS036 **BELLOT, J.; HERNANDEZ, N.; CHIRINO, E.**
HS1.4-010 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.; BENAVENTE, J.; CRUZ-SANJULIAN, J.J.**
HS1.4-011 Modifications in a coastal aquifer induced by changes in water management upstream (Adra river delta, SE Spain)
- HS038 **GARCIA-ARSTEGUI, J.L.; PADILLA, F.; HIDALGO, M.C.; CRUZ-SANJULIN, J.J.**
HS1.4-012 Water management in a southern coastal region of Spain (the Valez river). Simulation of groundwater 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.**
HS1.4-001 Current issues in coastal aquifer dynamics and groundwater recharge (Solicited Paper)
- 09:30 **CONDESSO MELO, M.T.; EDMUNDS, W.M.; MARQUES DA SILVA, M.A.**
HS1.4-002 Hydrogeochemistry and flow modelling of the Aveiro multilayer cretaceous aquifer
- 09:50 **MAS-PLA, J.; BACH, J.; VIQALS, E.; TRILLA, J.; ESTALRICH, J.**
HS1.4-003 Assessing groundwater exploitation in the Alt Empord coastal aquifer
- 10:10 **KOOI, H.; GROEN, J.; DE VRIES, J.J.**
HS1.4-004 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, A.**
HS1.4-005 Investigation of aquifer boundaries and seawater intrusion in the coastal plain of the Po delta using geoelectric measurements
- 11:20 **GUIMERA, J.; CANDELA, L.**
HS1.4-006 Comparison of different tracer methods to assess natural recharge in coastal aquifers
- 11:40 **VARNI, M.; USUNOFF, E.; WEINZETTEL, P.; RIVAS, R.**
HS1.4-007 The groundwater recharge in the Azul aquifer, central Buenos Aires province, Argentina
- 12:00 **MORELL, I.; TUNON, J.; JIMENEZ, J.R.**
HS1.4-008 Chemical evidence of surface water infiltration in the Castellon plain aquifer, Spain
- 12:05 **MORELL, I.; GIMENEZ, E.; TULIPANO, L.; FIDELIBUS, M.D.**
HS1.4-009 Seawater intrusion and saline regional waters. A synergic salinization

- 12:10 BELLOT, J.; HERNANDEZ, N.; CHIRINO, E.
HSA1.4- Effect of different vegetation type cover on the
010 unsaturated flow profiles and water balances in
semi-arid areas of Spain
- 12:15 EL AMRANI-PAAZA, N.; GARCIA-LOPEZ, S.;
HSA1.4- **BENAVENTE, J.**; CRUZ-SANJULIAN, J.J.
011 Modifications in a coastal aquifer induced by chang-
es in water management upstream (Adra river delta,
SE Spain)
- 12:20 GARCIA-ARSTEGUI, J.L.; PADILLA, F.;
HSA1.4- **HIDALGO, M.C.**; CRUZ-SANJULIN, J.J.
012 Water management in a southern coastal region of
Spain (the Valez river). Simulation of groundwater
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 distribu-
tion 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

HS

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.; SENNIKOV, J.; GRZHIBOVSKIS, R.; EBERHARDS, G.**
An investigation of prolonged coastline development by coupled longshore/crossshore 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 changing 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 hydrological station of Rietholzbach
- 11:20 BRANDSMA, T.; BUIHAND, T.A.
Rainfall generator for the Rhine basin: multi-site generation of weather variables by nearest-neighbour resampling
- 11:40 BARDOSSY, A.; GUENNI, L.
Disaggregation of highly seasonal monthly rainfall by simulating annealing
- 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.
Simulation of runoff at plot and catchment scale (Solicited Paper)
- 09:00 SZINELL, CS.; ACS, F.
Sensitivity of surface fluxes to structural differences in soil moisture simulation

HS

- 09:15 ORLANDINI, S.
HSA5- A two-layer model of near-surface soil drying for
003 time-continuous hydrologic simulations
- 09:30 OLIOSO, A.; CHAUKI, H.; BERTUZZI, P.
HSA5- Estimation of energy fluxes from thermal infrared,
004 spectral reflectance, microwave data and SVAT
modelling
- 09:45 DEKKER, S.C.; BOUTEN, W.
HSA5- Modelling forest transpiration from different perspec-
005 tives
- 10:00 FRÜHAUF, C.; ZIMMERMANN, L.;
HSA5- BERNHOFER, CH.
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,
HSA5- M.; BERNHOFER, CH.
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- Comparison of lake evaporation estimated by isotope
008 mass-balance, bulk-aerodynamic & Bowen ratio
methods
- 11:15 WIGNERON, J.-P.; CALVET, J.-C.; CHANZY, A.
HSA5- Estimating the root-zone soil moisture from remote
009 sensing observations
- 11:30 MOTOVILOV, YU.G.; GOTTSCHALK, L.;
HSA5- ENGELAND, K.
010 Modelling of hydrological cycle components in the
NOPEX area
- 11:45 DIERMANSE, F.
HSA5- Representation of natural heterogeneity in
011 rainfall-runoff models
- 12:00 NIRUPAMA; TAKASAO, T.; SHIIBA, M.;
HSA5- TACHIKAWA, Y.
012 A generalised expression for soil moisture storage
capacity distribution
- 12:15 BORMANN, H.; DIEKKRÜGER, B.;
HSA5- RENSCHLER, C.
013 Regionalization concepts for hydrological modelling
on different scales using a physically based model:
results and evaluation
- 12:30 YOUNG, M.D.B.
HSA5- Assessment and development of pedotransfer func-
014 tions for semi-arid sub-Saharan Africa
- 12:45 MENZIANI, M.; PUGNAGHI, S.; PILAN, L.;
HSA5- SANTANGELO, R.; VINCENZI, S.
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- Evaporation from a humid grassland catchment
016
- 14:15 SEUNTJENS, P.; CORNELIS, C.; DE BRUCKER,
HSA5- N.; GEUZENS, P.
017 Derivation of functional layers in a podzol
toposequence for simulating cadmium transport

- 14:30 WENG, PH.; COUDRAIN-RIBSTEIN, A.;
HSA5- BENDJOURDI, H.
018 Hydrologic measurements in an alluvial wetland
- 14:45 PERUMAL, M.; RANGA RAJU, K.G.;
HSA5- O'CONNELL, P.E.
019 Field applications of a variable parameter muskingum
method
- 15:00 GREGORIS, Y.; SCHOBER, A.
HSA5- Genetic algorithms, neural networks: is it possible to
020 use these "modern concepts" for hydrologic models?
- 15:15 TOTH, E.; MONTANARI, A.; BRATH, A.
HSA5- Real-time flood forecasting via combined use of
021 conceptual and stochastic models
- 15:30 BENAVENTE, J.; ALMECIJA, C.; CARRASCO,
HSA5- F.
022 Response to extreme hydrological situations in the
storage of an anthropogenically affected salt lake
- 15:45 KOOL, H.; DE VRIES, J.J.
HSA5- Land subsidence and hydrodynamic compaction of
023 sedimentary basins
- 16:00 DUCHARNE, A.; KOSTER, R.D.; SUAREZ, M.J.;
HSA5- KUMAR, P.
024 Evaluation of a catchment-based land surface model
for GCMS
- 16:15 SCHULZ, J.-P.; DÜMENIL, L.; POLCHER, J.
HSA5- Impact of different numerical coupling techniques
025 between surface and atmosphere in a GCM
- 16:30 KLEIDON, A.; HAGEMANN, S.
HSA5- Influence of rooting depth on the simulated climate
026 of a GCM
- 16:45 HAGEMANN, S.; KLEIDON, A.
HSA5- Influence of rooting depth on the simulated hydro-
027 logical 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 reduc-
tion scenarios
- HS053 CORTADA HINDERSIN, F.; SEMPERE
HSA5-030 TORRES, D.; KEBEN, K.; FRANKS, S.
Modelling by using topographic information.
Application of TOPMODEL to a Mediterranean
basin
- HS054 OLTCHEV, A.; IBROM, A.; KREILEIN, H.;
HSA5-031 MORGENSTERN, K.; GRAVENHORST, G.
Evaluation of the response of Spruce forest
ecosystem on climatic changes: results of model-
ling 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 field 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.; KOVALCHUC, D.V.
HSA5-035 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 waste 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-dimensional 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 inexpensive 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 **SPEL, 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.; UNNIKRIISHNA, 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.; TOTSCHKE, 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 - Post-er 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 hydrocarbons from oxygenated gasolines into water
- HS078 LENDVAY, J.M.; DEAN, S.M.; ANDRIAENS, P.
 Temporal 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 naphtha 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

HS

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 treat-
ment 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 deacti-
vation

12:30 VAN LIERE, H.C.; VAN AALST-VAN
LEEUVEN, 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 treat-
ment 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.

Reduction 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 quaternary 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)

HS

- 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 aquifer 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 measurements 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 example of rainfall interception
- 15:30 **ANDERTON, S.**; **LATRON, J.**; **LLORENS, P.**; **QUINN, P.**; **BUCHTELE, J.**; **CIARAPICA, L.**
HSA9.1-006 Comparative validation of hydrological models: preliminary results
- 15:45 **SALVANY, C.**; **LATRON, J.**; **LLORENS, P.**; **GALLART, F.**
HSA9.1-007 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 modelling 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.**; **UHLNBROOK, 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, L.**;
HSA9.1-033 **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 dynamics 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 rainfall-runoff simulation in a small endoreic catchment in the Sahel region, Niger, Africa
018
- 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 conceptual rainfall-runoff models
021
- 11:15 VIEUX, B.E.; LEDIMET, F.; ARMAND, D.
HSA9.1- Inverse problem formulation for spatially distributed river basin model calibration using the adjoint method
022
- 11:30 MOREDA, F.; BAUWENS, W.
HSA9.1- A conceptual 10 days water balance model with step wise parameter optimization
023
- 11:45 MOLENAT, J.; DAVY, P.; GASCUEL-ODOUX, C.; DURAND, P.
HSA9.1- Spectral and cross-spectral analysis of three hydrological systems
024
- 12:00 MOUSSA, R.
HSA9.1- On the use of the diffusive wave model to identify geomorphologic transfer function from digital elevation models
025
- 12:15 KUO, W.-L.; STEENHUIS, T.S.; MCCULLOCH, C.E.; MOHLER, C.L.; WEINSTEIN, D.;
HSA9.1- DEGLORIA, S.D.; SWANEY, D.; ZOLLWEG, J.A.;
026 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 SVAT-model framework
027
- 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 formulation 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) - Post-er 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 prognosis its level of change

HS

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 prognosis 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 at 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 significance
- 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 hydrologic 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 persistence 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**

HS

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

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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 Alpillles 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 alpillles 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: application 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 independent 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 contribution to mesoscale water paths: major, trace elements and Sr isotopes applied to the Peyne watershed (Herauld, 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-ROGUEZ, 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.**; **ESTEVEZ, 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 **ESTEVEZ, 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 ¹⁸O
- HS134 **BARIAC, T.**; **ROCHE, C.**; **CAYET, S.**; **SURUGUE, M.**
Isotopic composition of 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 CO₂ 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 ¹⁸O and ²H 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 MOUËL, 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**

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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 semiarid Mediterranean small catchments

HS

- 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 simulation model 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 measured 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 runoff 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 in the 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 CO₂
- 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 geometry 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 hydrographic data in the Atlantic and its application to an inverse modelling study
- OA015 **ZAVIALOV, P.**; **MÖLLER JR, O.**
Seasonal circulation and associated 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.
SF₆ 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 CO₂ 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 PCO₂ and CO₂ 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 CO₂ 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 properties 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

OA

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 **FRIEDERICH, 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 **SENNECHAE, 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 changes 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 changes 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 circulation 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 heatcontent 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.A.A.; 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.
Simulations 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: Sennéchaël, 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 circulation 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.
Coupled 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

OA

- 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 pathways and kinematics of meddies in the Iberian basin (Solicited Paper)
- 11:30 **BAEY, J.M.; RENOUEARD, D.**
Instabilities of an intermediate water current
- 11:45 **SADOUX, S.; RENOUEARD, 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.; RENOUEARD, 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 currents
- 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.; RENOUEARD, D.; D'AMBROSIO, M.; DIDELLE, H.**
Laboratory modelling of topographic Rossby modes
- 14:45 **MENKES, C.; MARCHAL, E.; LÉBOURGÈS, 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 KRIVOSHEVA, 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 the shelf circulation off the Ebro delta at mesoscale
- 10:00 RAILLARD, O.; DELEVILLE, S.; MORTIER, L.
Modelling summer marine circulation of the Gulf of Lions: use of an embedded model

- 10:15 ARNOUX-CHIAVASSA, S.; DURAND, N.; DEVENON, J.L.; OUILLOIN, 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.; QUADFASSEL, D.; ALPERS, W.; SELLSCHOPP, J.; FIEKAS, H.-V.
Evidence for 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 coastal plume
- 09:15 JACOBS, P.; IVEY, G.N.
Convection over a continental 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

- 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.; DRITSCHER, D.G.; MOREL, Y.G.; CARTON, X.J.**
Observation and modelisation of vortex formation in the case 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 plutions
- 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 exchanges 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 properties 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.; SENNIKOV, 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.; DRUZHKOVA, 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 distribution 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 ¹²⁹I and ¹³⁷Cs distributions for tracing Arctic ocean circulation
- 10:15 MERLIVAT, L.; HOOD, M.
Time series of PCO₂, 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 variability 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.; GAMMELSRÖD, 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 characteristics 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 the 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

OAS 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.**
Isopycnal Mediterranean data analysis and seasonal variability of the outcropping
- 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 **KIOROGLU, 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 **MATTHIEN, 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 the Adriatic Sea for the last 40 years
- 14:15 **MAGGIORE, A.; ZAVATARELLI, M.; PINARDI, N.**
Modelling the interannual variability of the Adriatic Sea general circulation
- 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 isopycnal 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 type 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 isopycnal 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 on the 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

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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.; LYKOSOV, 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 CO₂ and CH₄ 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.**; MATYASOVSKY, 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 forest 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.; RICHTER, 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 **HÜRTALOVA, 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 CO₂ 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.; BOROVSKEY, 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 CO₂ balances in a wetland ecosystem in northern Finland
- 09:15 **CALVET, J.-C.**; NOILHAN, J.; ROUJEAN, J.-L.
Introducing CO₂ assimilation in ISBA for interactive vegetation
- 09:30 **NORSTROM, C.**; FRIBORG, T.; HANSEN, B.U.; SOEGAARD, H.
Measurements of CO₂, CH₄, sensible and latent heat exchange at different tundra surfaces in a high Arctic environment
- 09:45 **MARTIN, P.H.**; LONGDOZ, B.; AUBINET, M.; SALTELLI, A.; FRANCOIS, L.
Comparing, refining, and standardizing water, CO₂ and heat exchange modelling methodologies
- 10:00 **HUMMELSHOEJ, P.**; JENSEN, N.O.; PILEGAARD, K.
CO₂ and water vapour fluxes over a Danish beech forest

- 10:15 **SCHMID, H.P.**; BATHELMIE, B.; CURTIS, P.; GRIMMOND, S.; PRYOR, S.; TEERI, J.
CO₂ exchange in mixed hardwood forests in the 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 micrometeorological 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 **MÄRKKANEN, 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 Alps
- 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 CO₂ 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 CO₂ 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.; WOFISKY, S.**
Controls on evaporation in a boreal spruce forest

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 SO₂-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-yr model study
- 15:15 **TROUDE, F.; DUPONT, E.; CARISSIMO, B.; FLOSSMANN, A.I.**
3D mesoscale simulation over Paris agglomeration

OA

* not included in the Book of Abstracts

- 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 horizontal 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 **ESTARELLAS, C.; JANSÁ, A.; GENOVES, A.;**
OA12-**CAMPINS, J.; PICORNELL, M.A.**

009 A case of deep cyclone associated to extreme weather in the Mediterranean

14:15 **BAUER, P.; DRÜEN, B.; SCHANZ, L.; SCHULZ,**
OA12-**J.**

010 Severe flood events in central Europe: a comparison between satellite-derived rain rates and radar measurements

14:30 **SENESI, S.; MOREL, C.**

OA12- A climatology of mesoscale convective systems south of the Alps

14:45 **LAGOUVARDOS, K.; KOTRONI, V.; KALLOS,**
OA12-**G.**

012 On the March 1987 extreme cold outbreak over the Greek peninsula

15:00 **KOTRONI, V.; LAGOUVARDOS, K.; KALLOS,**
OA12-**G.; ZIAKOPOULOS, D.**

013 Observational and model analysis of a severe flooding event over Greece

15:15 **QUADRI, C.; FEHLMANN, R.; DAVIES, H.C.**
OA12-**Upper-level PV structures and heavy precipitation**

014 south of the Alps: a sensitivity study

15:30 **SCHNEIDERREIT, M.; SCHÄR, C.**

OA12- Atmospheric flow regimes associated with a Piedmont-like low-level jet

15:45 **ROMERO, R.; RAMIS, C.; GUIJARRO, A.**

OA12- Objective classification of the heavy rainfall patterns in Mediterranean Spain

16:00 **FREI, C.; SCHÄR, C.**

OA12- Heavy precipitation along the southern rim of the Alps: a climatology from high-resolution rain-gauge data

16:15 **MAUGERI, M.; BARBIERO, R.; BELLUME, M.**
OA12-**Reconstruction of heavy rainfall events over the Po**

019 basin from 1868 to the end of the 19th century

16:30 **BURDE, G.I.**

OA12- 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 **TAURAT, D.; KLEPP, C.; PAPKE, F.**

OA12-021 **Monitoring of raining systems using SSM/I and METEOSAT data**

OA310 **TRIGO, I.F.; DAVIES, T.D.; BIGG, G.R.**

OA12-022 **Objective climatology of cyclones in the Mediterranean region**

OA311 **GIMENO, L.; RUA, A.; GOMEZ, M.;**

OA12-023 **OLALLA, R.**

Extreme wind events in Spain

OA312 **GIMENO, L.; RUA, A.; RODRIGUEZ, T.;**
OA12-024 **TESOURO, M.**

Extreme precipitation events in Spain

OA313 **MOROZOVSKY, E.**

OA12-025 **Case study of a frontal passage over Israel**

OA314 **ARNAUD, P.; PICARD, S.; LAVABRE, J.;**
OA12-026 **DOUGUEDROIT, A.**

Hourly rainfall stochastic generation: application on French Mediterranean seaboard

OA315 **BONASONI, P.; BONAFE, U.; CALZOLARI,**
OA12-027 **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 **BARGAGLI, A.; CARILLO, A.; MARIOTTI,**
OA12-028 **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 **MIRANDA, P.M.A.; SOARES, P.M.M.,**
OA12-029 **ALMEIDA, M.**

A case of extreme precipitation in southern Portugal

OA318 **PORCU, F.; DIETRICH, S.; MUGNAI, A.;**

OA12-030 **NATALI, S.; PRODI, F.; CONWAY, P.**

Satellite multi-frequency observations of severe convective systems in the Mediterranean

OA318A **GOLBRAIKH, E.; CHKHETIANI, O.G.;**
OA12-031 **MOISEEV, S.S.; EIDELMAN, A.; BRANOVER, H.**

On the character of turbulent energy redistribution in helical flows

OA318B **GRANBERG, I.G.**

OA12-032 **Numerical simulation of possible extreme events due to orography at Cyprus**

OA318C **STRELEC-MAHOVIC, N.; BRZOVIC, N.**

OA12-033 **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

OA 13 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 dropsondings 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 cyclone (IOP17)
- OA278 **SZÖCS, H.L.**; **KOSA-KISS, A.**
New observational proofs for short-term 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 mesoscale 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 atmo-
spheric 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.**; BENGTTSSON, L.
The hydrological cycle from high resolution assim-
ilation 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 precipita-
tion 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

OA

Attend the Business Meeting of your Section

on Wednesday, 22 April, 12.00-14.00, Lecture Room Clío

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 CO₂ atmospheric concentration
- 16:00 **RICARD, J.L.**; **BARTHELET, P.**; **TERRAY, L.**; **VALCKE, S.**
First results of a 2XCO₂ 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 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 CREWELL, S.; LÖHNERT, U.; MEBOLD, H.; SIMMER, C. Remote sensing of clouds using a groundbased multi-sensor system
- OA295 CAPDEROU, M. Determination of the shortwave anisotropic function for clear-sky desert scenes from SCAR-AB data. Comparison with models issued from other satellite data
- OA296 KÄRNER, O. A multidimensional histogram method to analyze AVHRR data
- OA297 STURNIOLO, O.; PRODI, F.; MEDINI, R.; BATTAGLIA, A. Cloud simulations with randomly oriented axially symmetric hydrometeors
- OA298 BETANCOR GROTHE, M.; DREYER, M.; BAKAN, S.; COSTANZO, C. Ground based passive remote sensing of ice clouds with scattered solar radiation in the near infrared
- OA299 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 SOMERVILLE, R.C.J.

OA15.1-001 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 LIU, C.-L.; ILLINGWORTH, A.J.

OA15.1-002 Cirrus cloud particle sizing using spaceborne radar/lidar system

11:15 RANDEU, W.L.; WITTERNIGG, N.

OA15.1-003 Outline specifications of ground-based cloud radars and their possible involvement in the Earth radiation mission

11:30 WITTERNIGG, N.; RANDEU, W.L.; LEITNER, M.

OA15.1-004 Scattering calculations for the simulation of radar returns in realistic cloud scenarios

11:45 WEITKAMP, C.; DANNE, O.; FLINT, H.;

OA15.1-005 LAHMANN, W.; QUANTE, M.; RASCHKE, E.;

THEOPOLD, F.A.

95-GHz radar/720-nm lidar simultaneous measurements of clouds at GKSS

12:00 DANNE, O.; QUANTE, M.; MILFERSTÄDT, D.;

OA15.1-006 RASCHKE, E.; WEITKAMP, C.

Investigations of cloud layer base and top heights from 95 GHz radar reflectivity data

12:15 FEIJT, A.; JONGEN, S.; VAN LAMMEREN, A.

OA15.1-007 Validation of satellite cloud parameter retrieval methods with objective ground based measurements

12:30 DAVIS, A.; CAHALAN, R.; SPINHIRNE, J.;

OA15.1-008 WINKLER, D.; GERSTL, S.; MELFI, S.H.

Off-beam lidar: an emerging 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 SPANG, R.; PREUSSE, P.; FRANZEN, A.;

OA15.1-009 GROSSMANN, K.U.; OFFERMANN, D.

Cloud detection in the upper troposphere and lower stratosphere by CRISTA 1/2

14:15 ASTIN, I.

OA15.1-010 Investigation of the error in derived mean cloud cover for a proposed space-borne cloud radar

14:30 COSTANZO, C.; BAKAN, S.

OA15.1-011 Estimation of cirrus and multi-layer cloud parameters from multispectral measurements in the near-infrared

14:45 DUROURE, C.; AURIOL, F.; CREPEL, O.;

OA15.1-012 GAYET, J.F.

Microscale inhomogeneities study using high resolution polar nephelometer measurements

15:00 JOLIVET, D.; PAROL, F.; BURIEZ, J.-C.

OA15.1-013 On the deviation of the bidirectional reflectance of inhomogeneous clouds from the plane parallel model

15:15 FAURE, T.; GUILLEMET, B.; ISAKA, H.;

OA15.1-014 EYMARD, L.

Heterogeneity effect on microphysical retrieval parameters by satellite at different scale

15:30 BREAK

Chairperson: van Lammeren, A.C.

Editor: Raschke, E.

16:00 ALBERS, F.; RASCHKE, E.; REUTER, A.;

OA15.1-015 MAIXNER, U.; LEVKOV, L.; SEDNEV, I.

Horizontal inhomogeneities in clouds and their effect of remote particle measurements

16:15 BÖSCH, H.; FUNK, O.; WAGNER, T.; PLATT, U.;

OA15.1-016 U.; PFEILSTICKER, K.

Clear and cloudy sky case studies of O₄ and oxygen A-band absorptions as seen by GOME

16:30 **FUNK, O.; VEITEL, H.; PLATT, U.;**
 OA15.1- PFEILSTICKER, K.
 017 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- M.; ERNST, G.; KUNZ, R.; MOUSSIOPOULOS, N.
 001 The parameterization of the microphysical processes
 and the radiative transfer in the mesoscale model
 MEMO
 11:15 **MÖLDERS, N.; FRIEDRICH, K.; KRAMM, G.**
 OA15.2- On the sensitivity of cloud microphysics to the
 002 energy and water fluxes at the interface
 Earth-atmosphere
 11:30 **AHRENS, B.; KARSTENS, U.; ROCKEL, B.;**
 OA15.2- STUHLMANN, R.
 003 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- Design, tests and first applications of a two-moment
 004 warm cloud scheme in a non-hydrostatic model
 12:00 **KRISTIANSEN, J.; KRISTJANSSON, J.E.**
 OA15.2- Shortwave cloud forcing of marine stratocumulus
 005 clouds
 12:15 **HAASE, G.; SIMMER, C.**
 OA15.2- A radar simulation model for the validation of
 006 mesoscale dynamic models
 12:30 **KURZ, C.; FUNK, O.; VEITEL, H.; PLATT, U.;**
 OA15.2- PFEILSTICKER, K.
 007 Experimentally determined photon pathlength distri-
 butions for different meteorological situations
 12:45 **PFEILSTICKER, K.**
 OA15.2- On the influence of the cloud morphology and
 008 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-spherical 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- Monte Carlo radiative transfer calculations for
 001 inhomogeneous mixed phase clouds
 14:15 **DI GIUSEPPE, F.; RIZZI, R.**
 OA15.3- Far-infrared scattering effects in cloudy sky
 002
 14:30 **HOLLMANN, R.; MÜLLER, J.; STUHLMANN, R.**
 OA15.3- Radiation budget for BALTEX
 003
 14:45 **SZCZAP, F.; ISAKA, H.; SAUTE, M.**
 OA15.3- The heterogeneity of clouds and their influence on
 004 their radiative properties
 15:00 **SZCZAP, F.; ISAKA, H.; SAUTE, M.**
 OA15.3- The anomalous absorption phenomenon of heteroge-
 005 neous clouds
 15:15 **MARSHAK, A.; DAVIS, A.; WISCOMBE, W.;**
 OA15.3- CAHALAN, R.
 006 Biases in shortwave column absorption in the pres-
 ence of fractal clouds
 15:30 **BERGER, F.H.**
 OA15.3- Heating rates in five atmospheric layers for selected
 007 cloud cases in Europe
 15:45 **BURNET, F.; BRENGUIER, J.-L.**
 OA15.3- Validation of droplet spectra and liquid water con-
 008 tent measurements
 16:00 **REICHARDT, J.; WEITKAMP, C.; NEIDHART,**
 OA15.3- B.
 009 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, N.A.; ROZANOV, E.V.
OA15.4-007 Numerical study of chemical species evolution in a convective cloud

OA307 LANDGRAF, J.; TRAUTMANN, T.; BRÜHL, C.
OA15.4-008

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, M.; CAUTENOT, S.

OA15.4-002 Model of biomass burning plume ageing

09:00 REESE, A.; HERRMANN, H.; ERVENS, B.;

OA15.4-003 ZELLNER, R.

Laboratory and modelling studies of tropospheric multiphase conversions involving some C₁ and C₂ peroxy 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.; PODGORNÝ, J.
OA15.4-006

Actinic flux computation for finite and broken clouds in absorbing and scattering atmospheres

10:00 END OF SUB-SESSION

OA16 Interaction of biogenic and anthropogenic compounds 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 CICCIOI, 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.;

CICCIOI, 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.;
 OA16- SEUFERT, G.
 009 Seasonal changes in amount and composition of
 monoterpenes emitted by young *Pinus pinea* trees
 16:30 END OF PART I
 17:00 Opening
 19:30 Reception

OA16 Interaction of biogenic and anthropogenic compounds 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- Application of the mesoscale meteorology-chemistry
 010 model TVM-LCC/RACM to the study of biogenic
 emissions

08:45 **HJORTH, J.**; HORIE, O.; JENSEN, N.R.;
 OA16- LARSEN, B.R.; NEEB, P.; PLAGENS, H.;
 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.;
 OA16- MIHALOPOULOS, N.; KAVOURAS, H.;
 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.;
 OA16- KOURTIDIS, K.

013 A biogenic VOC emissions inventory for Greece

09:30 **LAURILA, T.**; HAKOLA, H.; LINDORS, V.

OA16- Biogenic VOCs in continental northern Europe -
 014 concentrations and photochemistry

09:45 **HEIDEN, A.C.**; KLEY, D.; SCHUH, G.; **WILDT,**
 OA16- **J.**

015 Monoterpene emissions from rape: limitation by
 DMAPP/IPP availability

10:00 Poster Summaries

OA16- **STEINBRECHER, R.**; SEUFERT, G.; DUERR, M.;
 016 **HAUFF, K.**; ROESSLER, J.

Monoterpene emission from soils in orange planta-
 tions in the Valencian citrus belt, Spain

OA16- **MANES, F.**; SEUFERT, G.; **VITALE, M.**;

017 **DONATO, E.**; **CSIKY, O.**; **SILLI, V.**

Ecophysiological characterization of *Citrus Sinensis*
 (L.) Osbeck and relationships with type and amount
 of biogenic emissions

OA16- **STAUDT, M.**; **WOLF, A.**; **KESSELMEIER, J.**

018 Effect of light and temperature on the exchange of
 gaseous formic and acetic acid from orange foliage
 (*Citrus Sinensis* L.)

OA16- **ALVES, C.**; **PIO, C.**; **DUARTE, A.**
 019 The organic composition of air particulate matter
 from semi-rural and forest Portuguese areas

OA16- **HAKOLA, H.**; **RINNE, J.**; **LAURILA, T.**
 020 Seasonal variation of the VOC emission rates of
 boreal broad-leafed trees

OA16- **RINNE, J.**; **HAKOLA, H.**; **LAURILA, T.**
 021 Vertical fluxes of monoterpenes above a Scots pine
 in the boreal vegetation zone

OA16- **WINTERHALTER, R.**; **NEEB, P.**; **MOORTGAT,**
 022 **G.K.**

Aerosol formation in gas-phase monoterpene ozonol-
 ysis at near-atmospheric concentration

OA16- **RAPPENGLÜCK, B.**; **FABIAN, P.**

023 Observations of biogenic and anthropogenic NMHC
 in Athens during the PAUR campaign

OA16- **WILSKE, B.**; **KESSELMEIER, J.**

024 The C₁- and C₂- organic acid and aldehyd exchange
 of lichens in the boreal zone of Europe

OA16- **BOMBOI-MINGARRO, M.T.**; **BRAVO, I.**;
 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

OA16- **ECKERT, S.**; **STÜDEMANN, O.**

026 A conceptional model to assess biogenic and anthro-
 pogenic ozone forming potentials for Mecklenburg-
 Vorpommern, Germany

10:30 END OF SESSION

OA16 Interaction of biogenic and anthropogenic compounds 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 **STEINBRECHER, R.**; **SEUFERT, G.**; **DUERR,**
 OA16-016 **M.**; **HAUFF, K.**; **ROESSLER, J.**

Monoterpene emission from soils in orange
 plantations in the Valencian citrus belt, Spain

OA330 **MANES, F.**; **SEUFERT, G.**; **VITALE, M.**;

OA16-017 **DONATO, E.**; **CSIKY, O.**; **SILLI, V.**

Ecophysiological characterization of *Citrus*
Sinensis (L.) Osbeck and relationships with type
 and amount of biogenic emissions

OA331 **STAUDT, M.**; **WOLF, A.**; **KESSELMEIER, J.**

OA16-018 Effect of light and temperature on the exchange
 of gaseous formic and acetic acid from orange
 foliage (*Citrus Sinensis* L.)

OA332 **ALVES, C.**; **PIO, C.**; **DUARTE, A.**

OA16-019 The organic composition of air particulate matter
 from semi-rural and forest Portuguese areas

OA333 **HAKOLA, H.**; **RINNE, J.**; **LAURILA, T.**

OA16-020 Seasonal variation of the VOC emission rates of
 boreal broad-leafed trees

OA334 **RINNE, J.**; **HAKOLA, H.**; **LAURILA, T.**

OA16-021 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 C₁- and C₂- organic acid and aldehyd ex-
change 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 obser- vations (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 obser- vations (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 obser- vations (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: compari-
son 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 attributed 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.; RENSSSEN, 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 the last glacial maximum (about 18,000 yr B.P.)
- 15:30 CAMPIN, J.-M.; FICHEFET, T.; DUPLESSY, J.-C.
A GCM simulation of the ¹⁴C 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.; MARSIAI, 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 last 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 changes 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 instrumental 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 "natural 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

OA

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.; BENGTTSSON, 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.; BENGTTSSON, 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 C₁ and D1 cloud datasets**
- OA203 **KERAMITSOGLU, 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 CO₂ 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 **MATYASOVSKY, I.**
Estimating climate trends by nonparametric regression
- 11:15 **STENDEL, M.; BENGTTSSON, 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 CO₂ 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 temperatures 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 CO₂ 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 CO₂ 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

OA

- 14:50 **WITTRICK, 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.
C₂-C₇ 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 com-
pounds during polar sunrise at Alert, Canada

AMMANN, M.; WACHSMUTH, M.;
BALTENSBERGER, 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 CH₂Br₂, CH₂I₂ and CH₂BrI
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 XNO₂ (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 HO₂

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 C₁ 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 calcula-
tions 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 com- pounds 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.;

BALTENSBERGER, 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 bro-
mine and iodine containing species in the marine
boundary layer

OA346 **BEDJANIAN, YU.**; **POULET, G.**; **LE BRAS, G.**

Reactions of bromine atoms with alkenes: kinet-
ics 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 kinetic 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, $\text{O}(^3\text{P})$ 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
- 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

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.**; WITTRICK, 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

- 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 D_2O 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 NO₃ 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 HNO₃ 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 CH₂ICl and CH₂I₂
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.; FLENTJE, 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 tropo-
spheric ozone in Bremen
HANKE, M.; REINER, T.; ARNOLD, F.
Laboratory studies on the selective measurement of
organic peroxy radicals and HO₂ by chemical con-
version/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.;
MIHELICIC, 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 spectro-
metric technique for long-term monitoring of atmo-
spheric OH-radicals
WEBER, M.; HOFZUMAHAUS, A.; HOLLAND,
F.; SCHÄFER, J.; SEDLACEK, M.
The measurement of tropospheric HO₂ radical con-
centrations 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 HO_x 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 O₃ -> 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.; FLENTJE, 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 peroxy radicals and HO₂ 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 CLEMITSCHAW, K.C.; SUGIER, J.; JENKIN, M.E.; HEARD, D.E.; PILLING, M.J.; BURROWS, J.P.; MIHELICIC, 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 HO₂ 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 HO_x 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 O₃ → 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 ⁴⁰Ar/³⁹Ar isotopic signature of enhanced ice rafting 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 boundaries
- 09:30 **SCHMIDT, S.**; REYSS, J.-L.
Mesoscale estimation of particle dynamics, derived from ²³⁴Th, 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 **GOGO, 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 ²¹⁰Pb 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 plankton 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.; FAVALLI, P.; FRUGONI, F.; CALCARA, M.; SMRIGLIO, G.; MARANI, M.
Deep submarine gas vents in the Aeolian offshore

OA

OA399 THE AEGEAN HYDROTHERMAL FLUXES
CONSORTIUM
Hydrothermal fluxes and biological production in
the Aegean

OA22 Biogeochemical processes in subma- rine 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- KARNASOPOULOU, 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 hydro-
logical 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 oceanogra-
phy
- 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 shelf
- 11:00 BAHUREL, P.; DOMBROWSKY, E.; GIRAUD, S.;
AUDOUBERT, J.-M.
Developing operational systems for ocean monitor-
ing: 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 prospects 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 fluxes 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 fluxes 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 isopycnic 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

VO

- 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.; EKNESEN, M.; EVENSEN, G.
Studying marine ecosystems in terms of data assimilation
- 12:00 WIRTH, A.; GHIL, M.
A quasi-geographic 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 integrated 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 electrification
- 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 **KLINGSPORN, 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 probabilistic 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 troposphere. 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 measurements 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 composition of marine aerosols over the Atlantic Ocean: study of their origin and occurrence during the ALBATROSS campaign

KRISCHKE, U.; STAUBES, R.; JAESCHKE, W.
Measurements of SO₂ and NSS-SO₄²⁻ over the Atlantic ocean during ALBATROSS: a case study on the kinetics of the SO₂ 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+HO₂) 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 HO₂ concentrations in the marine boundary layer during ALBATROSS using laser-induced fluorescence spectroscopy

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 measurements 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 composition of marine aerosols over the Atlantic Ocean: study of their origin and occurrence during the ALBATROSS campaign

OA411 **KRISCHKE, U.; STAUBES, R.; JAESCHKE, W.**

Measurements of SO₂ and NSS-SO₄²⁻ over the Atlantic ocean during ALBATROSS: a case study on the kinetics of the SO₂ 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 HO_x (OH+HO₂) 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

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 of HCHO and SO₂ measurements in 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.; BONSAANG, 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

- OA417 **HOLLAND, F.**; HOFZUMAHAUS, A.; SEDLACEK, M.; WEBER, M.
Measurements of the OH and HO₂ concentrations in the marine boundary layer during ALBATROSS using laser-induced fluorescence spectroscopy
- OA418 **BÜRKERT, 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 SO₂ 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.; BONSSANG, B.
Factors controlling the observed seasonal variation of surface ozone at Amsterdam Island

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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 measurements 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-Provence (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

ST

- 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 during 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 hemispheric 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 CO₂ + 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 caused by natural sources
- ST017 **GOKOV, A.M.**; TYRNOV, O.F.
Ionospheric parameter variations in the lower D region during magnetic 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
- 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 tilt of geomagnetic force lines
- ST097 **KHALIPOV, V.L.**; STEPANOV, A.E.; ZIKRACH, E.K.
The polar blobs by Yakut meridional 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 disturbances 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 foF₂ 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

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

ST

- ST114 CHERNYAKOV, S.M.; EVSTAFJEV, O.V.
A digital ionospheric station in the observatory Loparskaya
- ST115 KÖSCH, 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.; KÖSCH, 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 modeled 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 N₂ and O₂
- 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.; MARTYENKO, 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 technique
- 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 the purposes 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 *

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.; SCHERLISS, L.
Magnetospheric and ionospheric disturbance dynamo effects in the low- and mid-latitude ionosphere (Solicited Paper)

Ionospheric effects

11:15 LILENSTEIN, 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

* not included in the Book of Abstracts

- 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 electrodynamic 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

ST

- 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 on the 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 Å 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 coronal 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 GRÜN WALDT, 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

ST

- 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 ³He 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.; QUEMAERAIS, 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.; KUCHARÉK, 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 ERDÖS, 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

ST

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 by lower hybrid turbulence during ionospheric modification experiments

14:15 **PEPEL, 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

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

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.

- 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 latitude, observed by INTERBALL auroral probe 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.; STRANGWAY, R.; PFAFF, R.; BLELLY, P.L. Electron-proton precipitation effects on the ionosphere during FAST/EISCAT/ESR coordinated experiments
- ST144 **BELÉNKAYA, 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.; SMLAUER, J.; STETIAROVA, J.; TITOVA, E.
Energetic electron precipitation as a signature of cold plasma structure near plasmopause
- 11:15 DACHEV, T.S.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 sensitivity 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 registered 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, L.J.R.; DE FRANCESCHI, G.

ST10-008 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, V.KH.;

ST10-011 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 foF₂ and M(3000)F₂ modelling and long-term prediction over European area

17:00 END OF PART I

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 foF₂

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

ST10-024

FLECHTNER, F.; BEDRICH, S.; TEUBEL, A. Comparisons of PRARE TEC with TOPEX measurements and with ionospheric models

ST159

ST10-025

SHAGIMURATOV, I.I.; YAKIMOVA, G.A.;

BARAN, L.W.

Regional model of TEC from GPS observations

ST160

ST10-026

ZAKHAROV, I.G.; TYRNOV, O.F.

Short-term critical frequency variations and their predictions in the midlatitude ionospheric F₂ region

ST161

ST10-027

PUSHKIN, V.F.; FEDORENKO, V.N.;

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

ST10-028

SCOTTO, C.

Recent results about the occurrence of F₁ layer

ST163

ST10-029

DRAGO, A.;

SCOTTO, C.;

ZOLESI, B.;

ZUCCHERETTI, E.

A test of electron density profiles models based on data of the digisonde DPS-4

ST164

ST10-030

VILA, P.;

FLEURY, R.

Mesoscale structures at equatorial F₂ latitudes and new oblique HF telecommunications in the subsahelain bush areas

ST165

ST10-031

LITVINE, A.;

KOFMAN, W.;

CABRIT, B.

The ion composition measurements and modelling at altitudes from 140 to 350 km using EISCAT measurements

ST166

ST10-032

CIRAULO, L.;

SPALLA, P.

Latitudinal dependence of total electron content evaluated by GPS and NNSS observations at middle latitudes

ST167

ST10-033

GASSE, V.;

LEMUR, D.;

BERTEL, L.

A 3D ray tracing procedure to study ionospheric tilts

ST168

ST10-034

STANISAWSKA, I.

Comparison of different instantaneous models of N(h) profiles at single location

ST168A

ST10-035

BILGE, A.H.;

TULUNAY, Y.

Semi empirical single station modelling of foF₂ variations: spectral analysis *

Attend the Business Meeting of your Section

Wednesday, 22 April, 12.00-14.00, Lecture Room M8

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 f_oF₂
- 09:30 LAMMING, X.; CANDER, L.J.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 indentation 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 activations
- 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.**

Distribution functions of the thermal H^+ , He^+ and O^+ ions in different zones of the magnetosphere

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.; BÖSINGER, 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

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 structure of the cusp-magnetosphere 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.; KOVRAZHKIN, 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

ST

Attend the Poster Session

- 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.; KOVRAZHNIKIN, 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.; SMLAUER, 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 **KOVRAZHNIKIN, 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
- 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 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

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.; MOUKIS, 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 **WIJK, 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 of 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 **KRASNOSSELSKIKH, 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 Alfvén solitons in a two 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)

ST

- 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 POLETTI, G.; UVCS TEAM
UVCS observations of polar regions
- 17:00 ORLANDO, S.; PERES, G.
Effects of plasma 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.; GRÜN WALDT, 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.; GRÜN WALDT, 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 GRÜN WALDT, H.; HILCHENBACH, M.; MARSCH, E.; BOCHSLER, P.
The search with CELIAS/CTOF for O⁵⁺ as a solar wind constituent
- 11:00 WURZ, P.; IPAVICH, F.M.; BOCHSLER, P.; AELLIG, M.R.; HEFTI, S.; KALLENBACH, R.; GALVIN, A.B.; GRÜN WALDT, H.; HILCHENBACH, M.
The silicon, oxygen, and iron abundance in the solar wind
- 11:15 HEFTI, S.; BOCHSLER, P.; GRÜN WALDT, H.; AELLIG, M.R.; IPAVICH, F.M.; HILCHENBACH, M.; WURZ, P.; HOVESTADT, 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 coronal structures - on the interpretation 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, evolu-
tion 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 disarition 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.; DELABOUDINIÈRE, 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 $\delta^{18}\text{O}$ 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, 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 O₃ budget - results of the GIM/IGAC intercomparison 1997 exercise (Solicited Paper)
- 14:30 **CLERBAUX, C.; HAUGLUSTAINE, D.; MILLER, J.F.; GRANIER, C.**
Tropospheric ozone and its precursors: IMG measurements and atmospheric models
- 14:45 **KNIGHT, J.R.; AUSTIN, J.; BUTCHART, N.**
Simulation of stratospheric constituents in a unified climate/forecast model
- 15:00 **LEVELT, P.F.; KHATTATOV, B.V.; TIE, X.X.; 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.**
Inversion of ozone profiles from high resolution IASI spectra
- 15:30 **NOEL, S.; BOVENSMANN, H.; BURROWS, J.P.; 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.;
 ST15.1-011 MEGIE, G.
 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.;
 ST15.1-012 ALLAART, M.A.F.
 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.;
 ST15.1-015 SCHNADT, C.; BRÜHL, C.; STEIL, B.
 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 stratospheric 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.
 ST15.1-029 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 ELANSKY, N.F.; POSTYLYAKOV, O.V.;
ST15.1-018 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 PAPAYANNIS, A.; PORTENEUVE, J.; BALIS,
ST15.1-019 D.; ZEREFOS, C.; GALANI, E.
Design of a new dial system for tropospheric and lower stratospheric ozone monitoring in northern Greece
- ST021 LEZEAX, O.; DE LA NOE, J.; RICAUD,
ST15.1-020 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 BONASONI, P.; EVANGELISTI, F.; BONAFE,
ST15.1-021 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 BRAMSTEDT, K.; WEBER, M.; ROZANOV,
ST15.1-022 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 ROZANOV, V.; BRAMSTEDT, K.;
ST15.1-023 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 ROZANOV, E.; ZUBOV, V.; SCHLESINGER,
ST15.1-024 M.; YANG, F.; ANDRONOVA, N.
Three-dimensional simulations of ozone in the stratosphere and comparison with UARS data
- ST026 EGOROVA, T.; ZUBOV, V.; YAGOVKINA,
ST15.1-025 S.; ROZAVOV, E.
Simulation of the atmospheric ozone distributions with the 2-D model and validations with HALOE and TOMS data
- ST027 EGOROVA, T.; ZUBOV, V.; YAGOVKINA,
ST15.1-026 S.; ROZAVOV, E.
Lightning production of NO_x and atmospheric ozone
- ST028 ORSOLINI, Y.J.; STEPHENSON, D.B.;
ST15.1-027 DOBLAS-REYES, F.J.
Storm track signature in total ozone during the northern hemisphere winter
- ST028A ILYUSHIN, Y.A.; TEREKHOVA, O.A.
ST15.1-30 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 N₂O, CH₄, H₂O and HDO, measured by MIPAS-B
- 11:45 MULLER, K.P.; BAUMGARTEN, G.; SIEBERT, J.; FRICKE, K.H.
Lidar observations of leewave induced PSCs above esrange in northern Sweden
- 12:00 FIERLI, F.; HACUHECORNE, 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.
NO₂ 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

ST

- 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 O₃ 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.**; TSELILOUDIS, 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.**; MANOILLO, 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 surface ozone episodes?
- ST043 **KRÜGER, B.C.**; KIRCHNER, F.; PEREGO, S.
The influence of radiation on tropospheric chemistry
- ST044 **BEINE, H.J.**; DAHLBACK, A.
J(NO₂) 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 - Post-er 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 MÖLLER, D.; KALASS, D.; ACKER, K.;
 ST15.4-016 WIEPRECHT, W.
 Five-year record of ozone at Mt. Brocken (Germany) - implications for changing heterogeneous chemistry
- ST050 GIMENO, L.; RUA, A.; MARTIN, I.;
 ST15.4-017 GARCIA, R.; HERNANDEZ, E.
 Diurnal variations of the surface ozone in Spain
- ST051 GIMENO, L.; RUA, A.; MARTIN, I.;
 ST15.4-018 GARCIA, R.; HERNANDEZ, E.
 Monthly variation of the surface ozone in Spain
- ST052 GIMENO, L.; RUA, A.; MARTIN, I.;
 ST15.4-019 GARCIA, R.; HERNANDEZ, E.
 Geographical sources of surface ozone in Spain
- ST053 GIMENO, L.; RUA, A.; MARTIN, I.;
 ST15.4-020 GARCIA, R.; HERNANDEZ, E.
 On the origin of the elevated surface ozone concentration in Spain
- ST054 BRÖNNIMANN, S.
 ST15.4-021 Early spring ozone episodes: occurrence and case study
- ST055 VAROTSOS, C.; CHRONOPOULOS, G.
 ST15.4-022 Vertical ozone distribution in the troposphere at Athens, Greece
- ST056 CHRONOPOULOS, G.; ALEXANDRIS, D.;
 ST15.4-023 VAROTSOS, C.
 A statistical model for the relationship of ozone and its precursors at Athens basin
- ST057 COEUR, C.; JACOB, V.; FOSTER, P.
 ST15.4-024 Gas phase reaction of hydroxyl radical with the natural hydrocarbon bornyl acetate
- ST058 VAROTSOS, C.; IATROU, T.
 ST15.4-025 Surface ozone measurements over Athens based on the historical data for the period 1901-1940
- ST059 VAROTSOS, C.; ALEXANDRIS, D.
 ST15.4-026 The role of water vapour on the tropospheric ozone depletion
- ST060 VAROTSOS, C.
 ST15.4-027 On the role of sea salt particles in polluted marine areas
- ST061 CATSAMBAS, A.; FERETIS, E.;
 ST15.4-028 SAKELARIOU, N.; KONDRATYEV, K.YA.; ANTONIOU, C.
 Tropospheric ozone related changes in biologically active ultraviolet radiation
- ST062 CATSAMBAS, A.; FERETIS, E.;
 ST15.4-029 SAKELARIOU, N.; KONDRATYEV, K.YA.; ANTONIOU, C.
 On the role of air pollution on the solar radiation reaching the ground
- ST063 SHAROBIEM, W.M.; ZAKEY, A.S.
 ST15.4-030 Tropospheric ozone and super dioxide in Cairo atmosphere

- ST064 KOLOUTSOU-VAKAKIS, S.; CARRICO, C.M.;
 ST15.4-031 LI, Z.; ROOD, M.J.; OGREN, J.
 Characterization of aerosol properties and direct radiative forcing at an anthropogenically perturbed continental site
- ST065 KONDRATYEV, K.YA.; MELNIKOVA, I.;
 ST15.4-032 VAROTSOS, C.; BORISENKOV, E.; GUSCHIN, G.; VOEYKOV, A.I.
 Surface ultraviolet radiation and ozone content as indicators of environmental quality
- ST066 VAROTSOS, C.; KONDRATYEV, K.YA.;
 ST15.4-033 MELNIKOVA, I.N.; GUSCHIN, G.P.
 Cloud impact on surface ultraviolet radiation
- ST066A JAROSLAWSKI, J.; PRZYBYLSKA, G.
 ST15.4-034 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 ANCELLET, G.; BEEKMANN, G.
 ST15.4-001 Short and long term variability of the vertical ozone profile in the Mediterranean region
- 09:00 VAROTSOS, C.; ALEXANDRIS, D.;
 ST15.4-002 CHRONOPOULOS, G.
 On the role of the lower-stratospheric circulation to the vertical ozone structure
- 09:15 ALEXANDRIS, D.
 ST15.4-003 Free tropospheric ozone variations at Athens, Greece
- 09:30 MÜNZENBERG-ST. DENIS, A.; RENNER, E.;
 ST15.4-004 WOLKE, R.
 Numerical investigation of the influence of biogenic emissions on ozone in Saxony (Germany)
- 09:45 CHRONOPOULOS, G.; VAROTSOS, C.
 ST15.4-005 On the seasonal variation of photo-oxidants at the greater Athens area
- 10:00 SANZ, M.J.; CARRATALA, A.; MANTILLA, E.;
 ST15.4-006 MILLAN, M.
 Daily ozone patterns and AOT40 index in east coast of the Iberian peninsula
- 10:15 BASTRUP-BIRK, A.; BRANDT, J.; ZLATEV, Z.
 ST15.4-007 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 SANZ, M.J.; CALTAYUD, A.; CALVO, E.
 ST15.4-008 Ozone injury spatial pattern in Aleppo pine and air pollution dynamics in the Mediterranean
- 11:15 IATROU, T.
 ST15.4-009 On the ozone content of the free troposphere over Athens, Greece, as derived by using in situ techniques
- 11:30 EFSTATHIOU, M.
 ST15.4-010 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 KREÜZWIESER, J.; RENNENBERG, H.
ST15.4-014 Production and emission of acetaldehyde in trees
- 12:45 VAROTSOS, C.; ALEXANDRIS, D.; CHRONOPOULOS, G.
ST15.4-015 Solar effective UV irradiance at height levels from 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 O₃ 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 chemistry
- 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 CO₂, CH₄, O₃ and SF₆ 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.; WOFYSY, 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 Jungfrauoch (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 laminar 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

ST

- 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 filaments
- 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 vortex 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 emissions
- 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 aircraft 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 HO_x: 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 H₂O, 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

ST

- 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 build-
ings 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-spon-
sored 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 develop-
ment
- 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 geodesic 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 prox-
imity 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.**
Expected performance of crosswind based wake
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 wake 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.**; **WILLEMSSEN, 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 project 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 project 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 project SOCRATES
- ST090A NADEAU, M.
A success story between NAV CANADA and Environment Canada

ST



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 constraints 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 ¹³C 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 spot 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

PS

- 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 craters 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 ¹⁵N/¹⁴N 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 atmo-
spheric 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 atmo-
spheres

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 equation model of
Jupiter's atmosphere
- 11:30 **LESUEUR, V.**; MANGENEY, A.; DROSSART, P.
Numerical 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 **SILLI, T.**; SAVIJÄRVI, H.; HARRI, A.-M.
Modelling of local and regional weather phenom-
ena in the Sagan memorail Station (Mars Path-
finder) landing area during its operation
- PS038 **HARRI, A.-M.**; POLKKO, J.; SILLI, 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.;
HOURLIN, 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

PS

Attend the Poster Session

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 **PEPEL, S.I.**
Influence on the Earth's magnetosphere of a dust related to cosmic bodies

Chairperson: Banaszkiwicz, 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 characteristics 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.
Centrifugal 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 of the dynamics of auroral processes on Jupiter. Correlation with Galileo measurements
- 15:45 **MAI, H.; JOCKERS, K.**
Observation of H_2 , $\lambda=2.121\mu$ and H_3^+ , $\lambda=2.093\mu$ 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 resolution with 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 resolution with 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 nucleus (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 nucleus
- 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

PS

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 H₂O 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 numerical 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 fragments 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 and 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 KLEWEIN, P.
Technical aspects in the observation of fast, time-varying radio emissions from sources in the solar system

11:15 LECACHEUX, A.; KLEWEIN, P.; BOUDJADA, M.Y.; CLERC, V.; DUBUY, F.; DE LASSUS, H.; MOREAU, PH.; ROSOLEN, C.; RUCKER, H.O.
A digital spectrum analyzer for ground based decametric 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 Nancy (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.; CADERSROKA, 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/CO₂ 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 BOCKELEEE-MORVAN, D.; LIS, D.C.; WINK, J.; 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 clinopyroxenes: relationship between spectral features and chemistry

PS7-010 WÄSCH, R.; SCHADE, U.

NIR reflectance spectroscopy of pyroxenes: ferroogites; sailtes; hedenbergites

PS7-011 LORENZ, R.D.

Dielectric properties of water-ammonia ice mixtures

PS7-012 ANDREICHIKOV, B.M.; DOLNIKOV, G.G.; DIKOV, Y.U.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, M.; KURAT, G.

PS7-015 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, J.**;
 PS7-017 **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 decomposition 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, K.
 PS7-008 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: ferroogites; 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, K.H.I.**
 PS7-013 Ice grains in comets: laboratory and numerical modelling
- PS074 **IBADINOV, K.H.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, A.;
 PS7-023 **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, C.;
 PS7-030 **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 CO₂ 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 CASANOVA, 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 ⁵³Cr 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 KOHEMASOV, 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.; OBERST, J.; KOEHLER, U.; JAUMANN, R.
PS9-002 Digital terrain model at the lunar south pole from Clementine data
- 14:45 PINET, P.C.; CHEVREL, S.; SHEVCHENKO, V.V.; DAYDOU, Y.
PS9-003 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.; NEUKUM, G.; HEAD III, J.W.
PS9-005 Ages and TiO₂-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, O.; SHERETOV, E.
PS9-008 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 on 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, R.; RATAJ, M.; ZARNOWIECKI, T.
PS9-028 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.; WILKEN, B.; GLOECKLER, G.; GALVIN, A.; CHOTO, K.
PS9-030 Identification of lunar pick-up ions in interplanetary space: WIND/STICKS results
- PS024 KOHEMASOV, 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, M.; TANAKA, S.; SHIRAISHI, H.; KOYAMA, J.; YAMADA, I.; MURAKAMI, H.; ISHIHARA, Y.; ITO, K.
PS9-013 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 laser 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.;
 PS9-018 **MATSUNAGA, T.**
 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 versus 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 incomplete record
 of the impact flux throughout geologic time (Solic-
 ited 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 (Solic-
 ited 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 β -Meteoroids, $\beta > 1$
- 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.; BURGENDORF, 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.; DA-
VIS, 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.; WIL-
LIAMS, I.
ISO observations of Kuiper Belt Objects

Comets, zodiacal light and asteroids

- 16:00 BOCKELEEE-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.; EDINGTON, S.; DE GRAAUW, TH.; DAVIS, G.R.; KESSLER, M.F.
ISO observations of Uranus: the stratospheric distribution of C₂H₂ 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 O₂ Hale-Bopp in telluric water vapor absorption band near 9360
- PS059 **MORRIS, P.**; VANDENBUSSCHE, B.; FEUCHTGRUBER, 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 dynamics 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, P.;

PS12-006 **SOMMERIA, J.**

Trapping of dust by coherent vortices in protoplanetary disks

16:00 **GUILLOT, T.**

PS12-007 Giant planet 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, D.;**
 PS12-016 **LUNINE, J.**
 Model bond albedos of extra-solar giant planets
 PS065 **DELEUIL, M.**
 PS12-017 Spectroscopic observation of the β pictoris disk with ISO
 PS066 **MANN, I.; HANNER, M.**
 PS12-018 Solar system dust beyond the asteroid 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.; PETTINGILL, 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

* 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 SABLONY, 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 SABLONY, 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 predic-
tions

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.**; **JOHN-
SON, 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



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>.

PS

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 without 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 forest-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.; VERECKEN, 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 m³ (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 m³

- 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.**
Description 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 measurements 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

NP

- 12:15 SCHMITT, F.
A scale-by-scale validation of continuous multifractal models in turbulence
- 12:30 ODIER, P.; PINTON, J.-F.; FAUVE, S.
Experimental MHD study of a liquid 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 atmospheric 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 of 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: Abernson, 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.**
 Quantifying predictability with Lyapunov exponents
- 10:30 **BREAK**

NP

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 random 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): Fröh, 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): Fröh, 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 stochastic 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 conceptual 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 signal 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 PETSCHHEL-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 microstructure 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

NP

- 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 stratosphere: 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.
Molecular 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 β -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 BROCCINI, M.
Strong turbulence 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

NP

- 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)

* not included in the Book of Abstracts

- 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**

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: Lagrangian 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 filaments
- 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

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 *

* not included in the Book of Abstracts



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 vortex 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 slowly 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.**; RENOARD, 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.; STANFORTH, A.**
A semi-Lagrangian finite element barotropic ocean model
- 17:15 **SHREIBER, I.**
Acoustic properties surface and sediment bottom 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 pulse 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.;**
NP4.2-006 **CANTALAPIEDRA, I.R.; CASTILLA, R.**
Vortical structures in stratified turbulent flows
- 10:30 **BREAK**

Chairperson: Moiseev, S.S.
Editor: Eidelman, A.E.

- 11:00 MOISEEV, S.S.
NP4.2- Generation of structures in geophysical and geo-like
007 media without a symmetry center (Solicited Paper)
11:30 CHKHETIANI, O.G.; GOLBRAIKH, E.;
NP4.2- MOISEEV, S.S.
008 Mechanisms of mean helicity generation and its role
in crisis atmospheric situations
11:45 KURGANSKY, M.V.
NP4.2- Vorticity genesis in the moist atmosphere
009
12:00 EIDELMAN, A.; BRANOVER, H.
NP4.2- Estimation of helicity parameters in WIND spectra
010 and in laboratory experiments
12:15 EROKHIN, N.S.; MOISEEV, S.S.; SHARKOV,
NP4.2- E.A.
011 On cells merging resulting to a large eddy forming
12:30 CORELA, C.; MENDES-VICTOR, L.A.
NP4.2- A nonlinear dispersive wave model for tsunami
012 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 be-
tween continuously 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 astrophys-
ical 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 simpli-
fied shallow water model
NP094 CHERNIKOV, G.P.; NEZLING, M.V.
On the mechanism of the Rossby vortex meridio-
nal 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

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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 rotating 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 application 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.; SCHOBBER, 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.; KRSTEL, 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.; 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.
Sediment slumping in the south Aegean Sea and the case history of the 1956 tsunami
- 11:30 TINTI, S.; BORTOLUCCI, E.; PIATANESI, A.
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, J.P.H.; SCHINDELE, F.; TINTI, S.
 NH1.3-006 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 meteorologic 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 approach 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 triggering 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.; ASENICIO, 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 **MARCHESE, 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 catastrophic 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 matrix, 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- The effect of rainfall on landslide triggering in
 002 northern Israel: an example of slope instability in an
 active seismic environment
- 14:30 **STEMBERK, J.; RYBAO, J.; SUCHY, J.**
 NH2.5- Landslides triggered by the heavy rainfall on July
 003 1997 in the Czech Republic
- 14:45 **FOCARDI, A.; FOCARDI, P.; VANNOCCI, P.**
 NH2.5- Debris flow which occurred in the Apuan Alps
 004 (Tuscany-Italy) during the rainfall event of 19th June
 1996
- 15:00 **EVANS, S.G.; HUNGR, O.**
 NH2.5- Rainfall-triggered debris avalanches in the mountains
 005 of British Columbia, Canada
- 15:15 **CROZIER, M.J.; PRESTON, N.J.; BROOKS, S.**
 NH2.5- Event-induced changes to landslide triggering thresh-
 006 olds
- 15:30 **GLADE, T.**
 NH2.5- Models of antecedent rainfall and soil water status
 007 applied to different regions in New Zealand
- 15:45 **VERSACE, P.; IRITANO, G.; SIRANGELO, B.**
 NH2.5- Return period associated to rainfall threshold for
 008 landslide triggering
- 16:00 **BORGA, M.; FRANK, E.; DALLA FONTANA, G.**
 NH2.5- Analysis of topographic control on shallow
 009 landsliding using a quasi-dynamic wetness
- 16:15 **BROOKS, S.; CROZIER, M.; PRESTON, N.**
 NH2.5- Regolith evolution and the control of shallow
 010 translational hillslope failure: use of a 2-dimensional
 coupled soil hydrology-slope stability model
- 16:30 **DI GREGORIO, S.; RONGO, R.;**
 NH2.5- **SORRISO-VALVO, M.; SPATARO, W.**
 011 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- The effect of land abandonment on soil water
 012 redistribution and preferential flowpaths on shallow
 landslide initiation (Poster)
- 16:50 **CHOWDHURY, R.N.; FLENTJE, P.**
 NH2.5- Hazard assessment for rainfall-triggered landslides
 013 (Poster)
- 16:55 **RULLI, M.C.; MENDUNI, G.; ROSSO, R.**
 NH2.5- Hydrologic thresholds for shallow landslides in
 014 mountain watershed: a spatially distributed simula-
 tion analysis (Poster)
- 17:00 **GULLA, G.**
 NH2.5- Modelling and trigger mechanisms of soil slips
 015 (Poster)
- 17:05 **PRESTON, N.J.**
 NH2.5- Feedback effects of rainfall-triggered shallow
 016 landsliding (Poster)
- 17:10 **GUERRICCHIO, A.; PONTE, M.; ZIMMARO, S.**
 NH2.5- A semi-quantitative approach, by means of the
 017 Hudson's matrix, 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 paramet-
 ers 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
 magnitude 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 ($M_s \geq 6$) 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 LIECHTL, D.; RUETTENER, E.; EUGSTER, S.; STREIT, R.
The impact 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 quiescence 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 PAPAPOULOS, G.; DRAKATOS, G.
A time clustering of strong earthquakes in Greece during October-November 1997
- 10:00 PAPAPOULOS, G.A.
Successful prediction of the large 18 November 1997 Ionian Sea earthquake
- 10:15 EVISON, F.F.; RHOADES, D.A.
Precursory swarms, quakes, and mainshock hazard
- 10:30 STEFANSSON, R.
Analysis 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 seismoacoustic 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 revealed 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 precursor 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 quiescence
- 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 seismogeoaoustic monitoring of seismotectonic processes and earthquake prediction in the Ukrainian Transcarpathians
- NH078 POGOSSIAN, A.
Phenomena of leap-type alterations revealed 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 catalogues: 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, G.; GUIDOBONI, E.
NH3.3-015 A fuzzy system to assess seismic intensity
- NH091 BAPTISTA, M.A.; MIRANDA, J.M.; MENDES VICTOR, L.
NH3.3-016 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.; MANTOVANI, E.
NH3.3-019 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 microearthquakes
- 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.; FERRELLI, 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 seismic hazard assessment of Libya
- NH070 **KOUTINOV, I.G.**; **YUDAKHIN, F.N.**; **BELNOVICH, 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.**
Earthquake-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 **HERMANN, 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.**; **HERMANN, R.**; **BOOKHAGEN, B.**; **STRECKER, M.**
Development of a landslide hazard map for north-west 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 susceptibility 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 regions 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 landslide 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-sponsored 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 the Lisbon town: a theoretical approach
- NH097 LAZARO, R.; PINTO, V.; RIVERO, L.; ROCA, J.L.; CASAS, A.
NH3.7-017 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.; PUJADES, L.G.; NAVARRO, M.; SANCHEZ, J.; CANAS, J.A.
NH3.7-018 Preliminary map of soil predominant periods in Barcelona using microtremors
- NH099 CID, J.; SUSAGNA, T.; GOULA, X.; CHAVARRIA, L.; FIGUERAS, S.; FLETA, J.; CASAS, A.; ROCA, A.
NH3.7-019 Seismic zonation of Barcelona based in preliminary site specific response spectra
- NH100 UMBRIA-MARCHE SITE EFFECT GROUP (UMSEG), MARSON, P.
NH3.7-020 Experimental site effect evaluation in urban areas of the Umbria and Marche regions (Italy)
- NH101 SOKOLOV, V.YU.; CHERNOV, YU.K.
NH3.7-021 Probabilistic microzonation of urban territories

- NH102 BOCCALETTI, M.; CORTI, G.; GASPERINI, P.; **PICCARDI, L.**; VANNI DESIDERI, A.; VANNINI, G.; VANNUCCI, G.; CLEMENTE, S.
NH3.7-022 Seismic zonation and active tectonics of the urban area of Florence (Italy)
- NH103 ENOMOTO, T.; NAVARRO, M.; SANCHEZ, F.J.; VIDAL, F.; SEO, K.; LUZON, F.
NH3.7-023 Application 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 EUROSEISMOD GROUP; **BARD, P.-Y.**
NH3.7-001 EUROSEISMOD lessons for microzoning studies (Solicited Paper)
- 09:00 **DIAGOURTAS, D.**; TZANIS, A.; MAKROPOULOS, K.
NH3.7-002 Comparative study of microtremor analysis methods
- 09:15 UGALDE, A.; EGOZCUE, J.J.; ALFARO, A.; PUJADES, L.G.; CANAS, J.A.
NH3.7-003 Estimation of the system function of soils using microtremors
- 09:30 **NAVARRO, M.**; SANCHEZ, F.J.; ENOMOTO, T.; MATSUDA, I.; VIDAL, F.; SEO, K.; POSADAS, A.J.
NH3.7-004 Detailed seismic microzoning of Almeria city using geotechnical information and microtremor observations
- 09:45 **TRIANTAFYLIDIS, P.**; HATZIDIMITRIOU, P.; THEODOULIDIS, N.; SUHADOLC, P.; PAPAACHOS, C.; RAPTAKIS, D.
NH3.7-005 Site effects in the city of Thessaloniki (Greece): estimates from data and modelling
- 10:00 **LE BRUN, B.**; HATZFELD, D.; **BARD, P.-Y.**
NH3.7-006 Seismic microzonation in Grenoble (France)
- 10:15 **DUVAL, A.-M.**, MENEROUD, J.-P.; SINGER, A.; FUNVISIS TECHNICAL MEMBERS
NH3.7-007 Caracas (Venezuela) site effect determination with microtremor
- 10:30 BREAK

Chairperson: Roca, A.
Editors: Roca, A.; Oliveira, C.S.

- 10:45 **DUVAL, A.-M.**; SEMBLAT, J.-F.; MENEROUD, J.-P.
NH3.7-008 Site effect determination in Nice, France (Gemitis project)
- 11:00 UGALDE, A.; PUJADES, L.G.; CANAS, J.A.
NH3.7-009 Microtremor analysis to characterise seismic wave attenuation in the city of Barcelona
- 11:15 **MARRARA, F.**; SUHADOLC, P.
NH3.7-010 Evaluation of site effects in Volvi Basin (Greece) from experimental data and modelling

- 11:30 BELLUCCI, F.; **CASERTA, A.**; CULTRERA, G.; DONATI, S.; MARRA, F.; MELE, G.; PALOMBO, B.; ROVELLI, A.
NH3.7-011 Study of site effects in the area of Nocera Umbra (central Italy) during the 1997 Umbria-Marche seismic sequence
- 11:45 **MOLDOVEANU, C.L.**; PANZA, G.F.
NH3.7-012 2-D strong motion simulation for microzoning of Bucharest
- 12:00 OLIVEIRA, C.S.; CORREIA GUEDES, J.H.; LUCAS, A.
NH3.7-013 The earthquake sequence of events during June-October 1997 crisis in the Azores observed under different soil conditions
- 12:15 **FÄH, D.**; NOACK, T.
NH3.7-014 The influence of the experts opinion on microzonation studies
- 12:30 PANZA, G.F.
NH3.7-015 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 SO₂ 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 avalanche 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.**
Precursors to the plinian eruptions of Thera (1628 BC) and Vesuvius (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.
Measurement 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 affected 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 for 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.; BALTENSBERGER, U.; PETZOLD, A.; SCHRÖDER, F.; WIRTH, M.; KRAUTSTRUNK, M.; RÖSLER, F.
Development of the planetary boundary layer/free troposphere height over a high-alpine mountain station: time-series study of airborne lidar transects
- 12:00 PIRINGER, M.; BAUMANN, K.; TRÄHER, 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 photolysis 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.

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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>.

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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 Géophysique et Planétologie, Faculté des Sciences, 2 rue de la Houssinière, 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 Kingdom; 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@egelasos.gein.noa.gr

May 18-20, 1998; **Joint Meeting of the Geological Association of Canada, Mineralogical Association of Canada, Association professionnelles des Géologues et des Géophysiciens 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: Sharmo98@avra.nraps.ariadne-t.gr, <http://milos.nraps.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 Thermomechanics, Academy of Sciences of the Czech Republic, 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 Headquarters, 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; **Biotransport'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@exeter.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, bd. 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, Tekniikantie 12, 02150 Espoo, Finland, Fax: +358-9-451-38-27, E-mail: nheleniu@ahuti.hut.fi, http://ahuti.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@mailers.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, Lluís 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/fcirt.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/2ndschooll.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: sven Erik.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 Aspects 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: confbuuro@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 Barrels, 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 (1/3 reduction) or en-bloc as corporate members (2/3 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 towards 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. Dañoibeitia

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 soil, 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 processes	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. Brandle
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 Multifractals	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

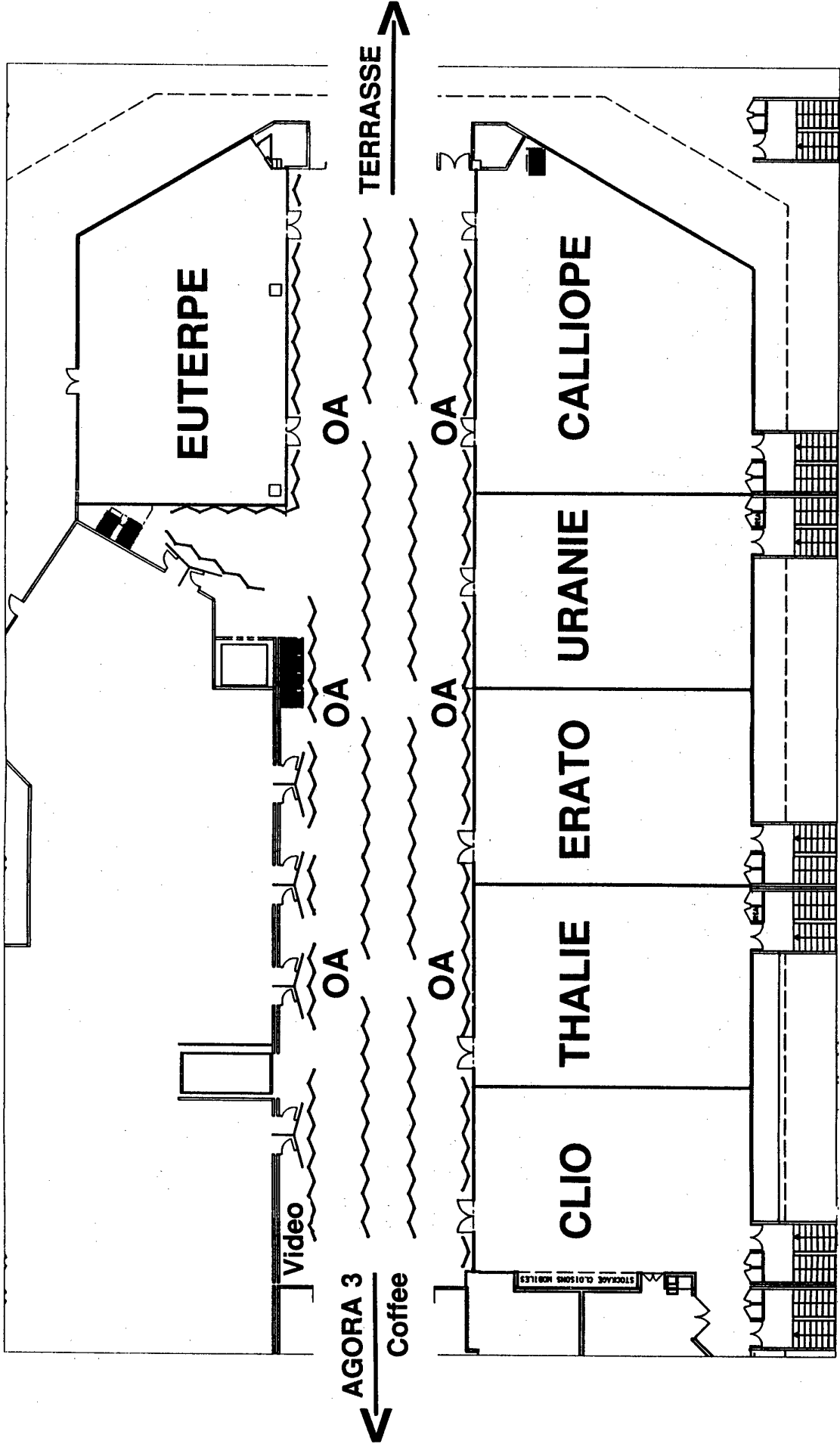
- 17.00-17.30 OA5
 MELSON, A.
 Ocean circulation in Vestfjorden
 (Video)

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



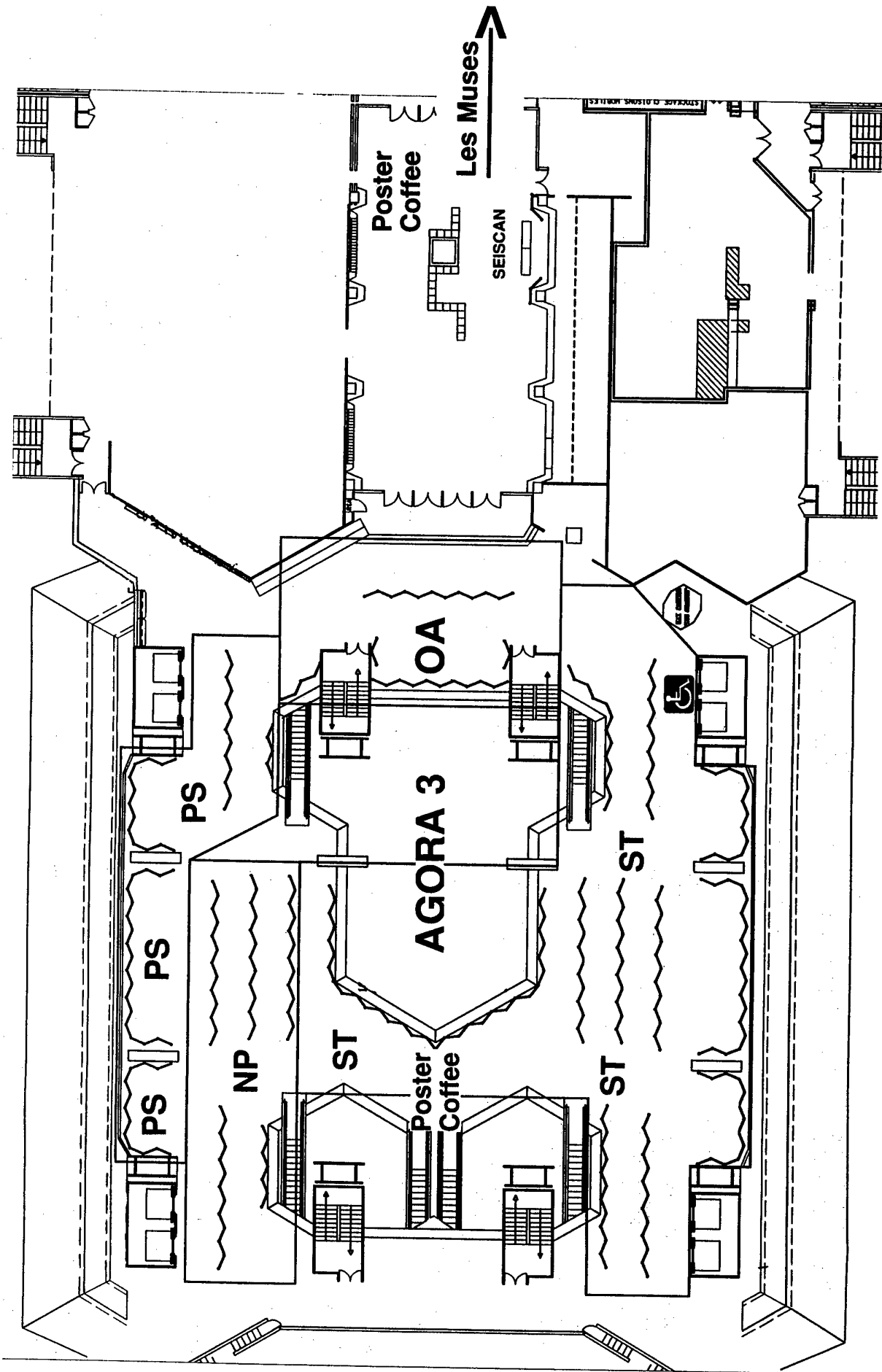
NICE ACROPOLIS - AGORA 3 - Level 3

Posters ST, PS & NP

Solar-Terrestrial Sciences ST	Planetary and Solar System Sciences PS	Nonlinear Processes in Geophysics NP
1. Middle Atmosphere	1. Interior & Surface	1. Multifractals
ST1 ST001-ST002A TU	PS1 PS001-PS002 TH	NP1.1 NP001-NP006 TU
ST2 ST003-ST018 TU	PS2 PS003-PS020 TU	NP1.2 NP007-NP014 TU
ST15.1 ST019-ST028A TH	PS9 PS021-PS026 TH	NP1.3 NP015-NP021 TU
ST15.2 ST029-ST036 TH		NP1.4 NP022-NP022A TU
ST15.3 ST037-ST048A TH	2. Atmospheres etc.	
ST15.4 ST049-ST066A TH	PS3 PS035-PS041 WE	
ST17.1 ST067-ST076 TU	PS4 PS042-PS046 TH	2. Time Series Analysis
ST17.2 ST077-ST090A TU		NP2.1 NP023-NP028 WE
	3. Mars Pathfinder	NP2.2 NP029-NP030 WE
2. Ionosphere	PS13 PS027-PS034 TU	NP2.3 NP031-NP038 WE
ST3 ST091-ST136 TH		
ST7 ST137-ST142 WE	4. ISO Observations	3. Geophysical Flows
ST8 ST143-ST146 TU	PS5 PS047-PS050 TH	NP3.1 NP039-NP045 TU
ST9 ST147-ST154 TU	PS11 PS051-PS062 TU	NP3.2 NP046-NP054 WE
ST10 ST155-ST168A TH		NP3.3 NP055-NP059 TU
	5. Extra-solar planets	NP3.4 NP060-NP064 TH
3. Magnetosphere	PS12 PS063-PS066 WE	NP3.5 NP065-NP078D TH
ST4 ST169-ST180 TH		
ST11 ST181-ST192E WE	6. Laboratory studies	4. Waves
	PS7 PS067-PS074 WE	NP4.1 NP079-NP090 TH
4. Sun & Heliosphere		NP4.2 NP091-NP092 TH
ST5 ST193-ST206A TU		NP4.3 NP093-NP097 TU
ST6 ST207-ST210 TU		NP5 NP098-NP102 TH
ST12 ST211-ST218 TH		
ST13.2 ST219-ST224 WE		

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	SE192-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

SE34.6 SE266-SE270

SE35.1 SE271-SE282

SE35.2 SE283-SE284

8. Potential fields

SE36 SE285-SE300

9. Geophysical & Geological Data

EGS2 SE301-SE304

EGS3 SE305-SE313

SE6 SE314-SE320

SE8 SE321-SE338C

SE12 SE339-SE341

SE52 SE342-SE352C

10. Regional studies

SE37 SE353-SE358

SE43 SE359-SE370

SE44 SE371-SE376

11. Geomaterials

SE39.1 SE377-SE391C

SE39.2 SE392-SE401

SE39.3 SE402-SE405A

SE39.6 SE406-SE410

SE41 SE411-SE414

12. Marine Geophysics

SE46 SE415-SE440A

SE47.1 SE441-SE446

SE48 SE447-SE462

SE50 SE463-SE468

SE51 SE469-SE474

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 to the seismicity of Italian area through the GNDT web site (PC demo)

CARDINALI, M.; GUZZETTI, F.;
REICHENBACH, P.; TONELLI, G.

Conveying scientific information to the users: the experience of the GNDCI information delivery system (PC demo)

17.30

Wednesday, 22 April

17.30 NH2.4

BOVO, S.; ROSSINO, M.; RAVA, M.

The natural risk situation hall (Video)

STELLING, G.S.; KERKAMP, H.W.J.;

LAGUZZI, M.M.
Delft flooding system: two-dimensional hydrodynamic flooding simulation. A powerful tool for landscape planning and risk evaluation (Video)

18.00

Thursday, 23 April

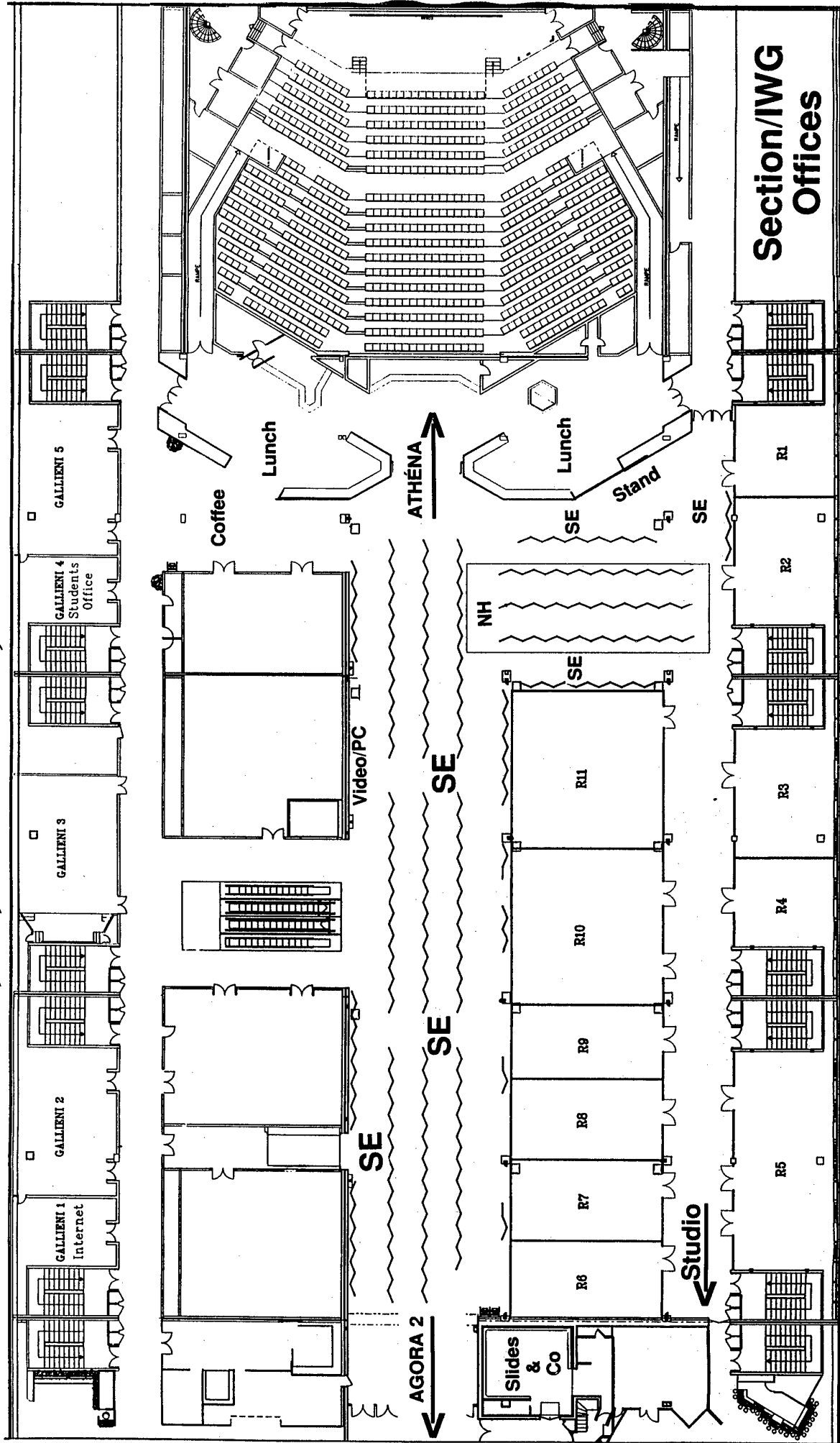
17.00 SE43

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

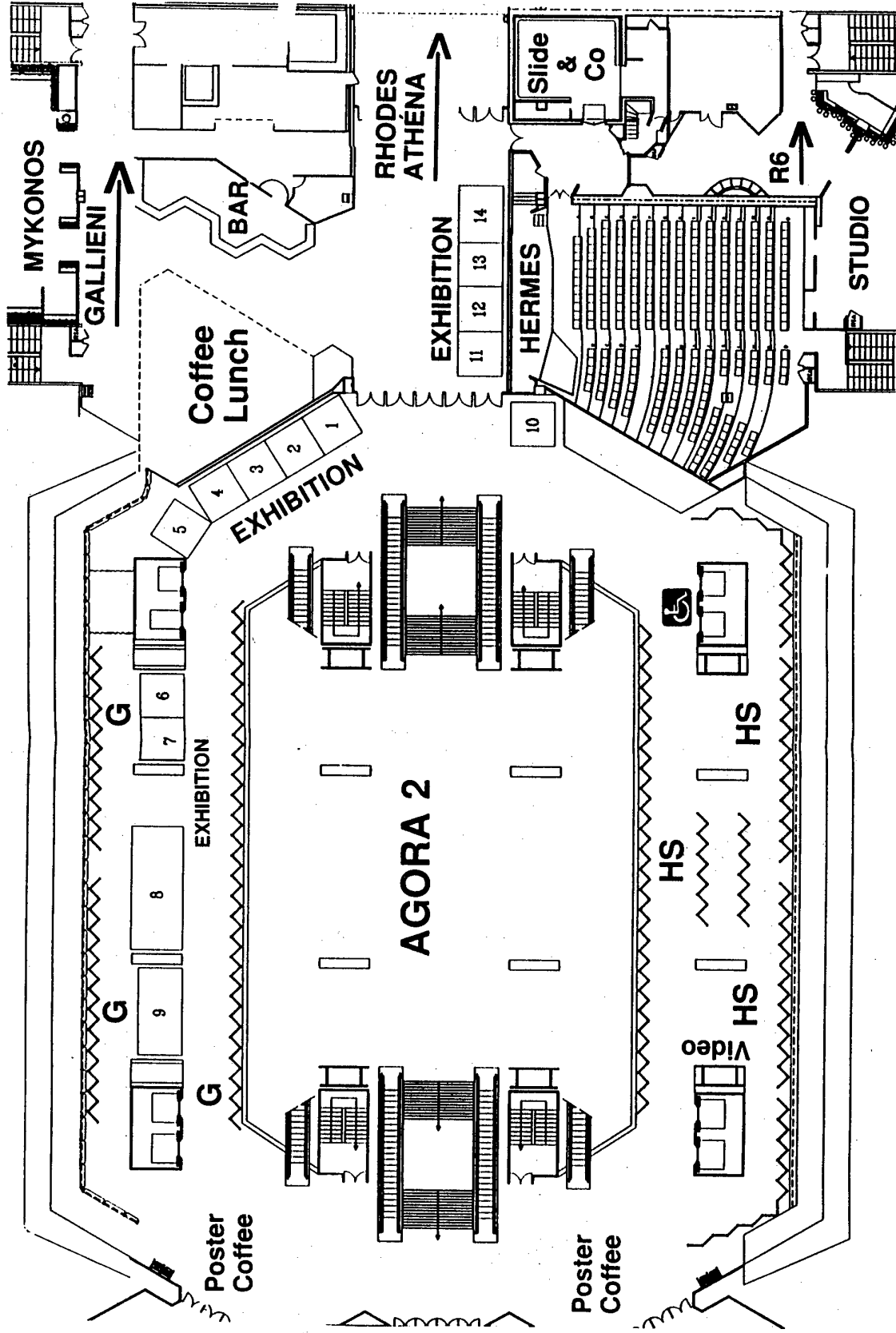
17.00-17.30 HSA4

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

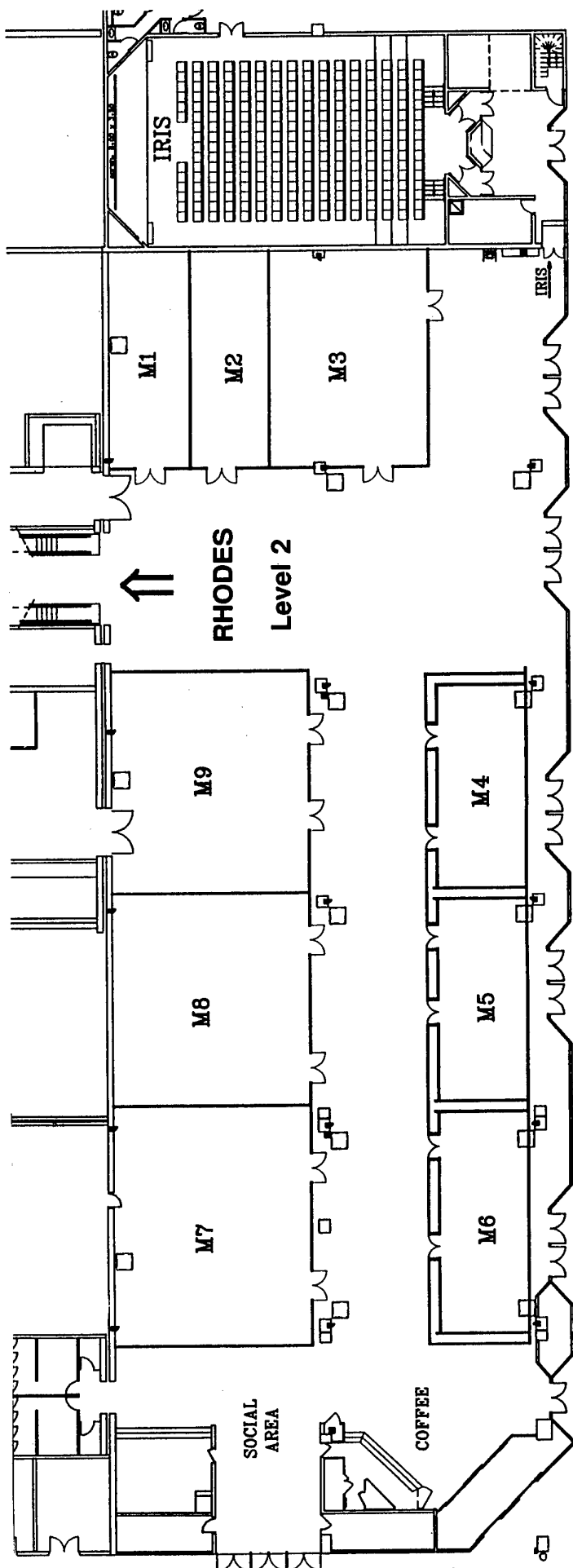
NICE ACROPOLIS - AGORA 2/Mykonos/Hermes - Level 2

Exhibition & Posters G & HS



NICE ACROPOLIS - Méditerranée - Level 0

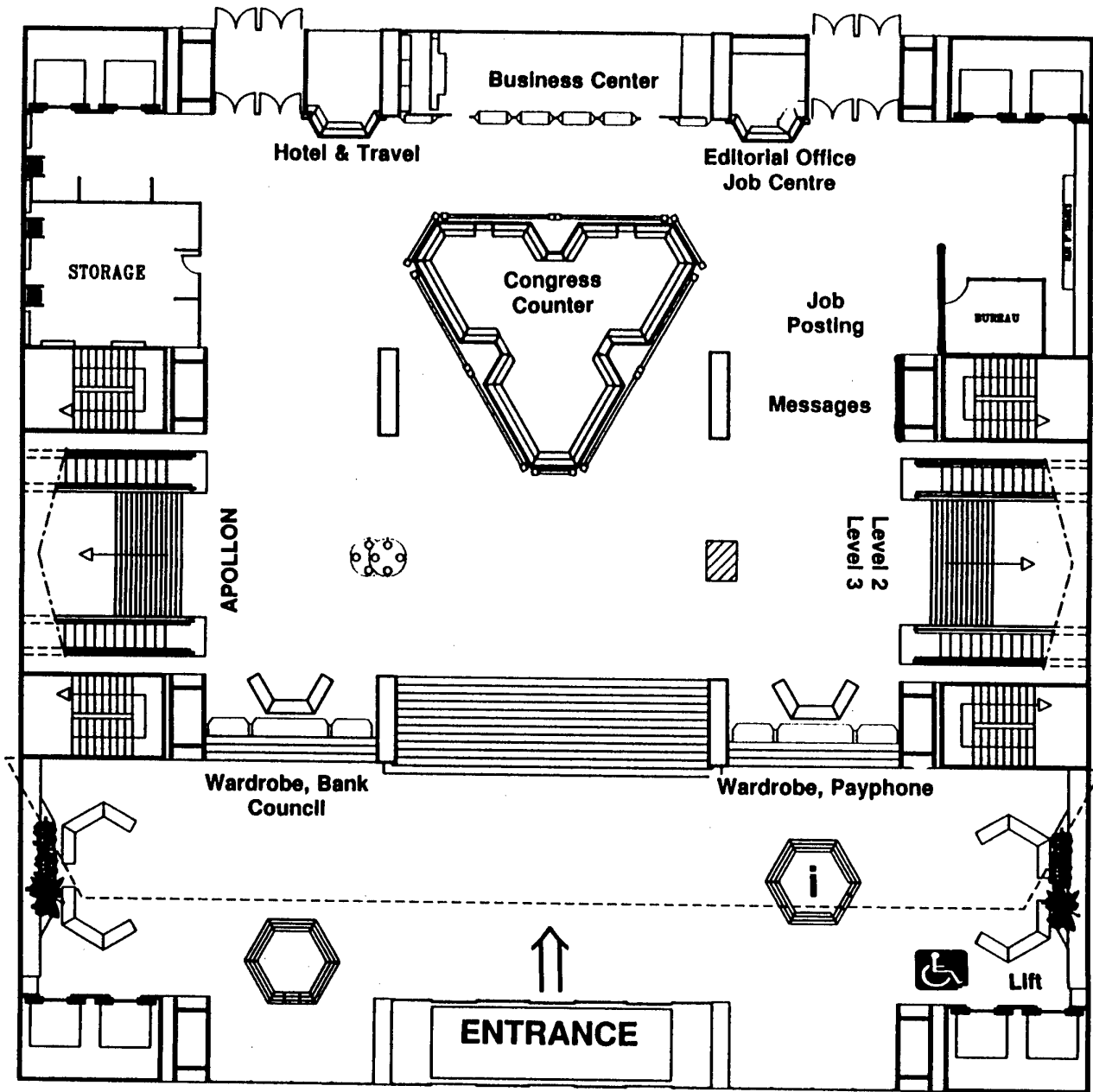
Sessions ST, PS & NP



⇐ 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

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XXIII General Assembly, Nice, France, 20-24 April 1998

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