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)OCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

AD-A207 266

1b. RESTRICTIVE MARKINGS

3. DISTRIBUTION/AVAILABILITY OF REPORT

Approved for public release;
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2b. DECLASSIFICATION/DOWNGRADING SCHEDULE

4. PERFORMING ORGANIZATION REPORT NUMBER(S)

5. MONITORING ORGANIZATION REPORT NUMBER(S)

AFOSR-TR. 89-0514

6a. NAME OF PERFORMING ORGANIZATION	6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION
Kent State University Department of Mathematics		AFOSR

6c. ADDRESS (City, State, and ZIP Code)	7b. ADDRESS (City, State, and ZIP Code)
Kent, OH 44242	BLDG 410 BAFB DC 20332-6448

8a. NAME OF FUNDING/SPONSORING ORGANIZATION	8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
AFOSR		F49620-79-C-0175

8c. ADDRESS (City, State, and ZIP Code)	10. SOURCE OF FUNDING NUMBERS			
	PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION N
BLDG 410 BAFB DC 20332-6448	61102F	2304	A3	

11. TITLE (Include Security Classification)

INVESTIGATIONS IN IMPROVED ITERATIVE METHODS FOR SOLVING SPARSE SYSTEMS OF LINEAR EQUATIC

12. PERSONAL AUTHOR(S)
R.S. Varga

13a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (Year, Month, Day)	15. PAGE COUNT
Final	FROM _____ TO _____	August 1980	3

16. SUPPLEMENTARY NOTATION

17.	COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

DTIC
ELECTE
APR 26 1989
D

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT			21. ABSTRACT SECURITY CLASSIFICATION
☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT ☐ DTIC USERS			unclassified

22a. NAME OF RESPONSIBLE INDIVIDUAL	22b. TELEPHONE (Include Area Code)	22c. OFFICE SYMBOL
	767-5025	NM

89

DD Form 1473, JUN 86   Previous editions are obsolete.   SECURITY CLASSIFICATION OF THIS PA

Final Scientific Report

F49620-79-C-0175

Submitted by: R. S. Varga, Principal Investigator
Department of Mathematics
Kent State University
Kent, OH 44242

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Final Scientific Report for ▮▮▮▮▮▮ F49620-79-C-0175

October 1, 1979 - June 30, 1980

Richard S. Varga, Principal Investigator

The research conducted by the ~~above~~ principal investigator during the period October 1, 1979 to June 30, 1980, ~~has~~ resulted in the following research articles which have either appeared in print, or have been accepted in refereed mathematical journals, in this period:

1. M. Lachance, E. B. Saff, and R. S. Varga, "Inequalities for polynomials with a prescribed zero", Math. Zeit. 168(1979), 105-116.

2. Richard S. Varga, "Poslednie Rezul'taty v Lineĭnoĭ Algebre i ee Priloženijah", (Russian), Vyčislitel" nye Metody Lineĭnoĭ Algebry, #3, 1978, pp. 5-15.

3. John J. Buoni and Richard S. Varga, "Theorems of Stein-Rosenberg Type", Numerical Mathematics (R. Ansorge, K. Glashoff, B. Werner, ~~eds.~~), ISNM 49, 65-75, Birkhäuser Verlag, Basel, 1979.

4. N. Anderson, E. B. Saff, and R. S. Varga, "On the Eneström-Kakeya Theorem and Its Sharpness", Linear Algebra and Appl. 28(1979), 5-16.

5. M. Lachance, E. B. Saff, and R. S. Varga, "Bounds for incomplete polynomials vanishing at both endpoints of an interval", Constructive Approaches to Mathematical Models (C. V. Coffman and G. J. Fix, eds.), pp. 421-437, Academic Press, Inc., New York, 1979.

6. A. S. Cavaretta, Jr., A. Sharma, and R. S. Varga, "Hermite-Birkhoff interpolation in the n-th roots of unity", Trans. Amer. Math. Soc. 259(1980), 621-628.

7. E. B. Saff, and R. S. Varga, "Remarks on some conjectures of G. G. Lorentz", J. Approximation Theory (to appear).

8. E. B. Saff and R. S. Varga, "On incomplete polynomials. II", Pacific J. Math. (to appear).

9. A. S. Cavaretta, Jr., A. Sharma, and R. S. Varga, "Interpolation in the roots of unity: an extension of a Theorem of J. L. Walsh", Resultate der Mathematik (to appear).

10. Michael Neumann and Richard S. Varga, "On the sharpness of some upper bounds for spectral radii of S.O.R. iteration matrices", Numer. Math. (to appear).

11. N. Anderson, E. B. Saff, and R. S. Varga, "An extension of the Eneström-Kakeya Theorem and its sharpness", SIAM J. Math. Anal. (to appear).

12. A. S. Cavaretta, A. Sharma, and R. S. Varga, "Lacunary trigonometric interpolation on equidistant nodes", Proceeding of an Approximation Theory Conference, held in Bonn, West Germany, in August, 1979 (to appear).

13. M. G. de Bruin, E. B. Saff, and R. S. Varga, "On zeros of generalized Bessel polynomials", Indag. Math. (to appear).

14. R. S. Varga, E. B. Saff, and V. Mehrmann, "Incomplete factorizations of matrices and connections with H-matrices", SIAM J. Num. Anal. (to appear).

15. M. G. de Bruin, E. B. Saff, and R. S. Varga, "On two conjectures on the zeros of generalized Bessel polynomials", Proceedings of the Lorentz Conference on Approximation Theory III, held in Austin, TX, in January, 1980 (to appear).

16. E. B. Saff, and J. L. Ullman, and R. S. Varga, "Incomplete polynomials: an electrostatic approach", Proceedings of the Lorentz Conference on Approximation Theory III, held in Austin, TX, in January, 1980 (to appear).

Keyword: (bibliographies,)

(KR)