

VOLUME 65 NUMBER 215

JULY 1996

MATHEMATICS OF COMPUTATION

A M E R I C A N M A T H E M A T I C A L S O C I E T Y

EDITED BY

James H. Bramble
Susanne C. Brenner
Howard Elman
Richard S. Falk
Walter Gautschi
Daniel W. Lozier
James N. Lyness
Harald Niederreiter
Syvert P. Nørsett
Andrew M. Odlyzko
John E. Osborn
Stanley Osher
Carl Pomerance
René Schoof
L. Ridgway Scott
Daniel Shanks
Chi-Wang Shu
Frank Stenger
Hans J. Stetter
G. W. Stewart
Nico M. Temme
Vidar Thomée
Lars B. Wahlbin, *Managing Editor*
Joseph D. Ward
Hugh C. Williams
John W. Wrench, Jr.
Stephen J. Wright

PROVIDENCE, RHODE ISLAND USA

ISSN 0025-5718

Mathematics of Computation

This journal publishes research articles in computational mathematics. Areas covered include numerical analysis, with emphasis on the mathematical analysis and development of methods, computational number theory and algebra, and related fields. Table errata and reviews of books in areas related to computational mathematics are also included.

Submission information. See **Information for Authors** at the end of this issue.

Subscription information. *Mathematics of Computation* is published quarterly. Beginning in January 1996 *Mathematics of Computation* is accessible from e-MATH via the World Wide Web at the URL <http://www.ams.org/publications/>. Subscription prices for Volume 65 (1996) are as follows: for paper delivery, \$290 list, \$232 institutional member, \$261 corporate member, \$189 MAA & SIAM members; \$174 individual member; for electronic delivery, \$261 list, \$209 institutional member, \$235 corporate member, \$170 MAA & SIAM members, \$157 individual member; for combination paper and electronic delivery, \$334 list, \$267 institutional member, \$301 corporate member, \$217 MAA & SIAM members, \$200 individual member. If ordering the paper version, add \$9 for surface delivery outside the United States and India; \$18 to India. Expedited delivery to destinations in North America is \$13; elsewhere \$40.

Back number information. For back issues see the *AMS Catalog of Publications*.

Subscriptions and orders should be addressed to the American Mathematical Society, P.O. Box 5904, Boston, MA 02206-5904. *All orders must be accompanied by payment.* Other correspondence should be addressed to P.O. Box 6248, Providence, RI 02940-6248.

Unpublished Mathematical Tables. The editorial office of the journal maintains a repository of Unpublished Mathematical Tables (UMT). When a table is deposited in the UMT repository a brief summary of its contents is published in the section *Reviews and Descriptions of Tables and Books*. Upon request, the chairman of the editorial committee will supply copies of any table for a nominal cost per page. All tables and correspondence concerning the UMT should be sent to Lars B. Wahlbin, Chairman, Editorial Committee, Mathematics of Computation, Center for Applied Mathematics, 657 Frank H. T. Rhodes Hall, Cornell University, Ithaca, NY 14853.

Copying and reprinting. Material in this journal may be reproduced by any means for educational and scientific purposes without fee or permission with the exception of reproduction by services that collect fees for delivery of documents and provided that the customary acknowledgment of the source is given. This consent does not extend to other kinds of copying for general distribution, for advertising or promotional purposes, or for resale. Requests for permission for commercial use of material should be addressed to the Assistant to the Publisher, American Mathematical Society, P.O. Box 6248, Providence, RI 02940-6248. Requests can also be made by e-mail to reprint-permission@ams.org.

Excluded from these provisions is material in articles for which the author holds copyright. In such cases, requests for permission to use or reprint should be addressed directly to the author(s). (Copyright ownership is indicated in the notice in the lower right-hand corner of the first page of each article.)

Mathematics of Computation is published quarterly by the American Mathematical Society at 201 Charles Street, Providence, RI 02904-2213. Second-class postage is paid at Providence, Rhode Island. Postmaster: Send address changes to Mathematics of Computation, American Mathematical Society, P. O. Box 6248, Providence, RI 02940-6248.

© 1996 by the American Mathematical Society. All rights reserved.

This journal is indexed in *Science Citation Index*[®], *SciSearch*[®], *Research Alert*[®], *CompuMath Citation Index*[®], and *Current Contents*[®]/*Physical, Chemical & Earth Sciences*.

⊗ The paper used in this book is acid-free and falls within the guidelines established to ensure permanence and durability.

♻ Printed on recycled paper.