

Reference and Book List

The *Reference* section of the Notices is intended to provide the reader with frequently sought information in an easily accessible manner. New information is printed as it becomes available and is referenced after the first printing. As soon as information is updated or otherwise changed, it will be noted in this section.

Contacting the Notices

The preferred method for contacting the Notices is electronic mail. The editor is the person to whom to send articles and letters for consideration. Articles include feature articles, memorial articles, book reviews and other communications, and "Forum" pieces. The editor is also the person to whom to send news of unusual interest about other people's mathematics research.

The managing editor is the person to whom to send items for "Mathematics People", "Mathematics Opportunities", "For Your Information", "Reference and Book List", and "Mathematics Calendar". Requests for permissions, as well as all other inquiries, go to the managing editor.

The electronic-mail addresses are `notices@math.tamu.edu` in the case of the editor and `notices@ams.org` in the case of the managing editor. The fax numbers are 979-845-6028 for the editor and 401-331-3842 for the managing editor. Postal addresses may be found in the masthead.

Upcoming Deadlines

October 1, 2000: Nominations for the AWM Louise Hay Award and Alice T. Schafer Prize. Contact Association for Women in Mathematics, 4114 Computer & Space Sciences Building, University of Maryland, College Park, MD 20742-2461; telephone: 301-405-7892; e-mail: `awm@math.umd.edu`.

October 1, 2000: Applications for NSF/AWM Travel Grants for Women.

See <http://www.awm-math.org/travelgrants.html>; telephone 301-405-7892; e-mail: `awm@math.umd.edu`.

October 15, 2000: Proposals for NSA grant and sabbatical programs. See <http://www.nsa.gov/programs/msp/grants.html>.

October 16, 2000: Applications for NSF Mathematical Sciences Postdoctoral Research Fellowships. See "Mathematics Opportunities" in this issue.

November 1, 2000: Proposals for ONR Young Investigator Program. See "Mathematics Opportunities" in this issue.

November 7, 2000: NSF Graduate Research Fellowships. See <http://www.orau.org/nsf/nsffel.htm> or contact: NSF Graduate Research Fellowship Program, Oak Ridge Associated Universities, P. O. Box 3010, Oak Ridge, TN 37831-3010; telephone: 865-241-4300; fax: 865-241-4513; e-mail: `nsfgrfp@orau.gov`.

December 15, 2000: Applications for AMS Epsilon Program. See "Mathematics Opportunities" in this issue.

December 15, 2000: Submissions of manuscripts for consideration for the Ferran Sunyer i Balaguer Prize. See "Mathematics Opportunities" in this issue.

January 8, 2001: Applications for NRC travel/host grants. See <http://www.nationalacademies.org/oia/>; telephone: 202-334-2644; fax: 202-334-2614; e-mail: `ocee@nas.edu`.

January 16, 2001: Proposals for NSF institute competition. See <http://www.nsf.gov/cgi-bin/getpub?nsf0086/>, or contact Division of Mathematical Sciences, Room 1025, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230; telephone: 703-306-1870.

January 23, 2001: Applications for AWM workshop at the SIAM meeting in San Diego, California. See "Mathematics Opportunities" in this issue.

Where To Find It

A brief index to information that appears in this and previous issues of the Notices.

AMS e-Mail Addresses—November 1999, p. 1269

AMS Ethical Guidelines—June 1995, p. 694

AMS Officers 1999 and 2000 (Council, Executive Committee, Publications Committees, Board of Trustees)—May 2000, p. 591

AMS Officers and Committee Members—October 2000, p. 1127

AMS Bylaws—November 1999, p. 1252

Conference Board of the Mathematical Sciences—September 2000, p. 913

Information for Notices Authors—June/July 2000, p. 686

Mathematics Research Institutes Contact Information—August 2000, p. 786

National Science Board—January 2000, p. 71

New Journals for 1999—June/July 2000, p. 688

NRC Board on the Mathematical Sciences and Staff—April 2000, p. 494

NRC Mathematical Sciences Education Board and Staff—April 2000, p. 494

NSF Mathematical and Physical Sciences Advisory Committee—March 2000, p. 381

Program Officers for Federal Funding Agencies (DoD, DoE, NSF)—November 1999, p. 1247; October 2000, p. 1100

January 26, 2001: Full proposals for NSF IGERT program. See <http://www.nsf.gov/cgi-bin/getpub?nsf0078/>, or contact NSF 00-78 - IGERT Program, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230; telephone: 703-306-1870.

February 1, May 1, October 1, 2001: Applications for NSF/AWM Travel Grants for Women. See <http://www.awm-math.org/travelgrants.html>; telephone 301-405-7892; e-mail: awm@math.umd.edu.

October 1, 2001: Nominations for the Emanuel and Carol Parzen Prize. Submit nominations to J. H. Matis, Department of Statistics, Texas A&M University, College Station, TX 77873-3143.

DoD Mathematics Staff

Five agencies of the Department of Defense fund research in the mathematical sciences. The names, addresses, and telephone numbers of the pertinent staff members are listed below.

Advanced Research Projects

Agency

Applied and Computational Mathematics Program
ARPA

Defense Sciences Office
3701 North Fairfax Drive
Arlington, VA 22203-1714
<http://www.darpa.mil/>

Michael J. Goldblatt, Director
703-696-2233
Fax: 703-696-3999 or 703-696-0218
mgoldblatt@darpa.mil

Air Force Office of Scientific Research

Directorate of Mathematics and Space Sciences
AFOSR/NM
801 N. Randolph St., Room 732
Arlington, VA 22203-1977
Fax: 703-696-8450
<http://www.afosr.af.mil/>

Clifford Rhoades, Director
703-696-7797
clifford.rhoades@afosr.af.mil

Dynamics and Control
Marc Jacobs

703-696-8409
marc.jacobs@afosr.af.mil

Physical Mathematics and Applied Analysis

Arje Nachman
703-696-8427
arje.nachman@afosr.af.mil

Computational Mathematics

William M. Hilbun
703-696-8429
william.hilbun@afosr.af.mil

External Aerodynamics and Hypersonics

Leonidas Sakell
703-696-6566
len.sakell@afosr.af.mil

Optimization and Discrete Mathematics

Neal Glassman
703-696-8431
Neal.glassman@afosr.af.mil

Signals Communication and Surveillance

Jon Sjogren
703-696-6564
jon.sjogren@afosr.af.mil

Software and Systems

Robert Herklotz
703-696-6565
robert.herklotz@afosr.af.mil

Artificial Intelligence

Edward M. Williams
703-696-8421
edward.williams@afosr.af.mil

Electromagnetics

Arje Nachman
703-696-8427
arje.nachman@afosr.af.mil

Army Research Office

Mathematical and Computer Sciences Division
P. O. Box 12211
Research Triangle Park,
NC 27709-2211
919-549-4254
Fax: 919-549-4354
<http://www.aro.army.mil/>

Julian J. Wu, Associate Director
jjwu@aro-emh1.army.mil

Applied Analysis

John Lavery
919-549-4253
lavery@aro-emh1.army.mil

Computational Mathematics

Stephen Davis
919-549-4284
sdavis@aro-emh1.army.mil

Conferences and Infrastructure

Jean Tigges
Division Administrator
919-549-4321
tigges@aro-emh1.army.mil

Discrete Mathematics and Computer Science

Michael Coyle
919-549-4284
coylejm@aro-emh1.army.mil

Probability and Statistics

Robert Launer
919-549-4309
launer@aro-emh1.army.mil

Software and Knowledge-Based Systems

David Hislop
919-549-4255
hislop@aro-emh1.army.mil

Systems and Control

Linda Bushnell
919-549-4319
bushnell@aro-emh1.army.mil

National Security Agency

Mathematical Sciences Program
Attn: R51A, Suite 6557
Ft. George G. Meade,
MD 20755-6557
<http://www.nsa.gov:8080/programs/msp/>

Charles F. Osgood, Director
301-688-0400
msp@math13.math.umbc.edu

Office of Naval Research

Mathematical, Computer, and Information Sciences Division
Office of Naval Research
Code 311
Ballston Centre Tower 1
800 North Quincy Street
Arlington, VA 22217-5660
703-696-4312

Fax: 703-696-2611
<http://www.onr.navy.mil/>

Andre van Tilborg, Director
 703-696-4312
vantila@onr.navy.mil

Intelligent Systems
 Behzad Kamgar-Parsi
 703-696-5754
kamgarb@onr.navy.mil

Software and Computer Systems
 Ralph Wachter
 703-696-4304
wachter@itd.nrl.navy.mil

Interoperability
 David Jakubek
 703-696-0872
jakubed@onr.navy.mil

Command, Control, and Combat Systems
 Paul Quinn
 703-696-5753
quinnp@onr.navy.mil

Gary Toth
 703-696-4961
tothg@onr.navy.mil

Howard Marsh
 703-696-1359
marshh@onr.navy.mil

Advanced Concept Technology Demonstration
 Susan Hearold
 703-696-4310
hearols@onr.navy.mil

Operations Research
 Donald Wagner
 703-696-4313
wagnerd@onr.navy.mil

Applied Analysis
 Reza Malek-Madani
 703-696-4314
malekmr@onr.navy.mil

Carey Schwartz
 703-696-4314
schwarc@onr.navy.mil

Numerical Analysis
 Richard Lau
 703-696-4316

laur@onr.navy.mil

Probability and Statistics
 Wendy Martinez
 703-696-4320
martinwe@onr.navy.mil

Visualization
 Larry Rosenblum
 202-767-5333
rosenblum@ait.nrl.navy.mil

Autonomous Systems
 Teresa McMullen
 703-696-3163
mcmullt@onr.navy.mil

Information Assurance
 Frank Deckelman
 703-696-0615
deckelf@onr.navy.mil

Marine Corps C4
 John Moniz
 703-696-2492
monizj@onr.navy.mil

DoE Mathematics Program
 Mathematical, Information, and
 Computational Sciences Division
 Department of Energy, ER-31
 19901 Germantown Road
 Germantown, MD 20874
 301-903-5800
 Fax: 301-903-7774
[http://www.er.doe.gov/
 production/octr/mics/index.html](http://www.er.doe.gov/production/octr/mics/index.html)

C. Edward Oliver
 Acting Director, MICS
 301-903-7486
ed.oliver@science.doe.gov

Computer Research
 Daniel Hitchcock
 301-903-6767
hitchcock@er.doe.gov

Frederick C. Johnson
 301-903-3601
fjohnson@er.doe.gov

National Energy Research Scientific Computing Center
 Thomas A. Kitchens
 301-903-5152
kitchens@er.doe.gov

Networking
 Thomas Ndousse-Fetter
 301-903-9960
tndousse@er.doe.gov

Collaboratory Research
 Mary Anne Scott
 301-903-6368
scott@er.doe.gov

Energy Sciences Network
 George R. Seweryniak
 301-903-0071
seweryni@er.doe.gov

Book List

The Book List highlights books that have mathematical themes and hold appeal for a wide audience, including mathematicians, students, and a significant portion of the general public. When a book has been reviewed in the Notices, a reference is given to the review. Generally the list will contain only books published within the last two years, though exceptions may be made in cases where current events (e.g., the death of a prominent mathematician, coverage of a certain piece of mathematics in the news) warrant drawing readers' attention to older books. Suggestions for books to include on the list may be sent to the managing editor, e-mail: notices@ams.org.

The Advent of the Algorithm: The Idea That Rules the World, by David Berlinski. Harcourt, March 2000. ISBN 0-151-00338-6.

The Arithmetic of Life, by George Shaffner. Ballantine Books, August 1999. ISBN 0-345-42631-2.

The Bride of Science, by Benjamin Woolley. MacMillan, August 1999. ISBN 0-333-72436-4.

Chance Rules: An Informal Guide to Probability, Risk, and Statistics, by Brian S. Everitt. Springer, August 1999. ISBN 0-387-98768-1.

Complexity and Information, by J. F. Traub and Arthur G. Werschulz. Cambridge University Press, December 1998. ISBN 0-52148-005-1 (hardcover), 0-521-48506-1 (paperback).

The Eightfold Way: The Beauty of Klein's Quartic Curve, edited by Silvio Levy. Cambridge University Press, March 1999. ISBN 0-521-66066-1.

The Elegant Universe: Superstrings, Hidden Dimensions, and the Quest for the Ultimate Theory, by Brian Greene. W. W. Norton & Company, February 1999. ISBN 0-393-04688-5.

Excursions into Mathematics: Millennium Edition, by Anatole Beck, Michael N. Cleicher, and Donald W. Crowe. A K Peters, 2000. ISBN 1-56881-115-2.

The Fermat Diary, by C. J. Mozzochi. AMS, 2000. ISBN 0-8218-2670-0.

Fermat's Last Theorem for Amateurs, by Paulo Ribenboim. Springer, February 1999. ISBN 0-387-98508-5. (Reviewed April 1999.)

Five More Golden Rules: Knots, Codes, Chaos and Other Great Theories of 20th Century Mathematics, by John L. Casti. John Wiley & Sons, February 2000. ISBN 0-471-32233-4.

Fragile Dominion: Complexity and the Commons, by Simon Levin. Perseus Books, June 1999. ISBN 0-738-20111-1. (Reviewed May 2000.)

The Game's Afoot! Game Theory in Myth and Paradox, by Alexander Mehlmann. AMS, 2000. ISBN 0-8218-2121-0.

A History of Algorithms: From the Pebble to the Microchip, edited by Jean-Luc Chabert. Springer, September 1999. ISBN 3-540-63369-3.

A History of the Circle: Mathematical Reasoning and the Physical Universe, by Ernest Zebrowski Jr. Rutgers University Press, August 1999. ISBN 0-813-52677-9.

Imaginary Numbers: An Anthology of Marvelous Mathematical Stories, Diversions, Poems, and Musings, edited by William Frucht. John Wiley & Sons, October 1999. ISBN 0-471-33244-5. (Reviewed August 2000.)

Infosense: Turning Data and Information into Knowledge, by Keith Devlin. W. H. Freeman, June 1999. ISBN 0-716-73484-2.

John von Neumann: The Scientific Genius Who Pioneered the Modern Computer, Game Theory, Nuclear Deterrence, and Much More, by Norman Macrae. AMS, October 1999. ISBN 0-8218-2064-8.

The Kingdom of Infinite Number: A Field Guide, by Bryan Bunch. W. H. Freeman, January 2000. ISBN 0-716-73388-9.

Mathematical Sorcery: Revealing the Secrets of Numbers, by Calvin C.

Clawson. Plenum Press, May 1999. ISBN 0-306-46003-3.

Mathematics Success and Failure among African American Youth: The Roles of Sociohistorical Context, Community Forces, School Influence, and Individual Agency, by Danny B. Martin. Lawrence Erlbaum Associates, December 1999. ISBN 0-805-83042-1.

Mathematics Unlimited: 2001 and Beyond, Björn Engquist and Wilfried Schmid, editors. Springer, September 2000. ISBN 3-540-66913-2.

The Nature of Mathematical Modeling, by Neil Gershenfeld. Cambridge University Press, February 1999. ISBN 0-521-57095-6.

Noeuds: Genèse d'une théorie mathématique (Knots: Genesis of a Mathematical Theory), by Alexei Sossinsky (in French). Seuil, 1999. ISBN 2-020-32089-4. (Reviewed June/July 2000.)

The Nothing That Is: A Natural History of Zero, by Robert Kaplan. Oxford University Press, October 1999. ISBN 0-195-12842-7.

Number: From Ahmes to Cantor, by Midhat Gazalé. Princeton University Press, March 2000. ISBN 0-691-00515-X.

Philosophy of Mathematics: An Introduction to a World of Proofs and Pictures, by James Robert Brown. Routledge, August 1999. ISBN 0-415-12274-0.

Proofs and Confirmations: The Story of the Alternating Sign Matrix Conjecture, by David M. Bressoud. MAA Spectrum Series, published jointly with Cambridge University Press, August 1999. ISBN 0-521-66646-5.

Riemann, Topology, and Physics, by Michael Monastyrsky (translated by Roger Cooke, James King, and Victoria King). Birkhäuser, second edition, May 1999. ISBN 3-764-33789-3.

Shadows of the Circle: Conic Sections, Optimal Figures and Non-Euclidean Geometry, by Vagn Lundsgaard Hansen. World Scientific Publishing Company, November 1998. ISBN 9-810-23418-X.

Slicing Pizzas, Racing Turtles, and Further Adventures in Applied Mathematics, by Robert B. Banks. Princeton University Press, September 1999. ISBN 0-691-05947-0.

Small Worlds: The Dynamics of Networks between Order and Random-

ness, by Duncan J. Watts. Princeton University Press, November 1999. ISBN 0-691-00541-9. (Reviewed September 2000.)

Squaring the Circle: The War between Hobbes and Wallis, by Douglas M. Jesseph. University of Chicago Press, December 1999. ISBN 0-226-39899-4 (hardcover), 0-226-39900-1 (paperback).

Statistics on the Table: The History of Statistical Concepts and Methods, by Stephen M. Stigler. Harvard University Press, November 1999. ISBN 0-674-83601-4.

Stephen Smale: The Mathematician Who Broke the Dimension Barrier, by Steve Batterson. AMS, February 2000. ISBN 0-821-82045-1.

Turing and the Computer (The Big Idea), by Paul Strathern. Anchor Books, April 1999. ISBN 0-385-49243-X.

Uncle Petros and Goldbach's Conjecture by Apostolos Doxiadis. Bloomsbury USA, February 2000. ISBN 1-582-34067-6.

The Universal History of Numbers: From Prehistory to the Invention of the Computer, by Georges Ifrah (translated by David Bellos, Sophie Wood, and Ian Monk). John Wiley & Sons, December 1999. ISBN 0-471-37568-3.

The Unknowable, by Gregory Chaitin. Springer, August 1999. ISBN 9-814-02172-5.

What Are the Odds? Chance in Everyday Life, by Michael Orkin. W. H. Freeman, December 1999. ISBN 0-716-73560-1.

What Counts: How Every Brain Is Hardwired for Math, by Brian Butterworth. Free Press, August 1999. ISBN 0-684-85417-1.

What Is Random? Discovering Chance and Order in Mathematics and the World, by Edward J. Beltrami. Springer, August 1999. ISBN 0-387-98737-1.

The Wild Numbers, by Philibert Schogt. Four Walls Eight Windows, April 2000. ISBN 1-568-58166-1.

Zero: The Biography of a Dangerous Idea, by Charles Seife. Viking Press, February 2000. ISBN 0-670-88457-X. (Reviewed in this issue.)