

# 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, communications, opinion pieces, and book reviews. 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](mailto:notices@math.tamu.edu) in the case of the editor and [notices@ams.org](mailto: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

**January 10, 2001:** Applications for AAUW Selected Professions Fellowships. See <http://www.aauw.org/3000/fdnfelgra/select-profbd.html>, or contact the AAUW Educational Foundation, Department 60, 2201 North Dodge Street, Iowa City, IA 52243-4030; telephone 319-337-1716, ext. 60.

**January 15, 2001:** Applications for AMS-AAAS Mass Media Fellowships. See <http://ehr.aaas.org/ehr/> (click the "Projects" link), or contact AAAS Mass Media Science and Engineering Fellows Program, 1200 New York Avenue, NW, Washington, DC 20005; telephone 202-326-6760; fax 202-371-9849; or the AMS Washington Office, 1527 Eighteenth Street, NW, Washington, DC 20036; telephone 202-588-1100; fax 202-588-1853; e-mail: [amsdc@ams.org](mailto:amsdc@ams.org).

**January 15, 2001:** Applications for the first competition for NRC Research Associateships. See <http://www4.nationalacademies.org/osep/rap/>, or contact the National Research Council, Associateship Programs (TJ 2114), 2101 Constitution Avenue, NW, Washington, DC 20418; telephone 202-334-2760; fax 202-334-2759; e-mail: [rap@nas.edu](mailto:rap@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 18, 2001:** Scientific Computing Research Equipment for the Mathematical Sciences (SCREMS) program of the NSF. See "Mathematics Opportunities" in this issue.

**January 22-24, 2001:** Full proposals for small projects for NSF Information Technology Research Program. See <http://www.itr.nsf.gov/>.

**January 23, 2001:** Applications for AWM Workshop at the SIAM meeting in San Diego, California. See <http://www.awm-math.org/>; telephone 301-405-7892; e-mail: [awm@math.umd.edu](mailto:awm@math.umd.edu).

## Where To Find It

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

**AMS Bylaws**—November 1999, p. 1252

**AMS e-Mail Addresses**—November 2000, p. 1288

**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

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

**Information for Notices Authors**—January 2001, p. 39

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

**National Science Board**—February 2001, p. 216

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

**NRC Board on 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)**—October 2000, p. 1100; November 2000, p. 1291

**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](mailto:awm@math.umd.edu).

**February 7, 2001:** Major Research Instrumentation program of the NSF. See "Mathematics Opportunities" in this issue.

**March 1, 2001:** Applications for EDGE Summer Program. See <http://www.brynmawr.edu/Acads/Math/edge/edge.html>.

**April 9-11, 2001:** Full proposals for group projects for NSF Information Technology Research Program. See <http://www.itr.nsf.gov/>.

**April 15, 2001:** Applications for the second competition for NRC Research Associateships. See <http://www4.nationalacademies.org/osep/rap/>, or contact the National Research Council, Associateship Programs (TJ 2114), 2101 Constitution Avenue, NW, Washington, DC 20418; telephone 202-334-2760; fax 202-334-2759; e-mail: [rap@nas.edu](mailto:rap@nas.edu).

**April 23-25, 2001:** Full proposals for large projects for NSF Information Technology Research Program. See <http://www.itr.nsf.gov/>.

**May 1, 2001:** Burroughs Wellcome Fund Career Awards at the Scientific Interface. See "Mathematics Opportunities" in this issue.

**August 15, 2001:** Applications for the third competition for NRC Research Associateships. See <http://www4.nationalacademies.org/osep/rap/>, or contact the National Research Council, Associateship Programs (TJ 2114), 2101 Constitution Avenue, NW, Washington, DC 20418; telephone 202-334-2760; fax 202-334-2759; e-mail: [rap@nas.edu](mailto:rap@nas.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.

## National Science Board

The National Science Board is the policymaking body of the National Science Foundation. The names and affiliations of the board members follow.

*John A. Armstrong*  
Vice President for Science and Technology (Retired)  
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*Nina V. Fedoroff*  
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Director, Life Sciences Consortium  
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Professor of Mathematics  
Grinnell College  
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Department of Computer Science  
University of Virginia  
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Payson Center for International Development and Technology Transfer  
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Department of Physics  
Cornell University  
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Purdue University  
West Lafayette, IN

*Vera C. Rubin*  
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Department of Terrestrial Magnetism  
Carnegie Institution  
Washington, DC

*Maxine Savitz*  
General Manager  
Honeywell and Technology Partnerships  
Torrance, CA

*Luis Sequeira*  
J. C. Walker Professor Emeritus  
Department of Bacteriology and Plant Pathology  
University of Wisconsin  
Madison, WI

*Daniel Simberloff*  
Nancy Gore Hunger Professor of Environmental Science  
Department of Ecology and Evolutionary Biology

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Knoxville, TN

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University  
Pomona, CA

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Department of Computational and  
Applied Mathematics  
Rice University  
Houston, TX

*Chang-Lin Tien*  
University Professor  
NEC Distinguished Professor of  
Engineering  
Department of Mechanical  
Engineering  
University of California  
Berkeley, CA

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Senior Scientist and Section Head  
National Center for Atmospheric  
Research  
Boulder, CO

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#### Ex-officio Members

*Rita R. Colwell* (Chairman, Executive  
Committee)  
Director  
National Science Foundation  
Arlington, VA

*Marta Cehelsky*  
Executive Officer  
National Science Board  
National Science Foundation  
Arlington, VA

The contact information for the Board is: National Science Board, National Science Foundation, 4201 Wilson Boulevard, Suite 1225, Arlington, VA 22230; telephone 703-292-

7000; fax 703-292-9008; World Wide Web <http://www.nsf.gov/nsb/>.

#### 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](mailto: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.

*Angles of Reflection: Logic and a Mother's Love*, by Joan L. Richards. W. H. Freeman, May 2000. ISBN 0-7167-3831-7.

*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.

*The Crest of the Peacock: The Non-European Roots of Mathematics*, by George Gheverghese Joseph. Princeton University Press, October 2000 (new edition). ISBN 0-691-00659-8.

*Divine Harmony: The Life and Teachings of Pythagoras*, by John Strohmeier and Peter Westbrook. Berkeley Hills Books, November 1999. ISBN 0-965-37745-8.

*The Dots and Boxes Game*, by Elwyn Berlekamp. A K Peters, July 2000. ISBN 1-568-81129-2.

*Duelling Idiots and Other Probability Puzzlers*, by Paul J. Nahin. Princeton University Press, October 2000. ISBN 0-691-00979-1.

*Education of a Mathematician*, by Philip J. Davis. A K Peters, August 2000. ISBN 1-568-81116-0. (Reviewed January 2001.)

*Einstein in Love: A Scientific Romance*, by Dennis Overbye. Viking Press, October 2000. ISBN 0-670-89430-3.

*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.

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

*Geometry from Africa: Mathematical and Educational Explorations*, by Paulus Gerdes. Mathematical Association of America, April 1999. ISBN 0-88385-715-4.

*Gödel: A Life of Logic*, by John L. Casti and Werner DePauli. Perseus, August 2000. ISBN 0-738-20274-6.

*Gödel Meets Einstein: Time Travel in the Gödel Universe*, by Palle Yourgrau. Open Court, November 1999. ISBN 0-812-69408-2.

*Hex Strategy: Making the Right Connections*, by Cameron Browne. A K Peters, May 2000. ISBN 1-568-81117-9.

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

*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.

*The Math Gene: How Mathematical Thinking Evolved and Why Numbers Are Like Gossip*, by Keith Devlin. Basic Books, August 2000. ISBN: 0-465-01618-9. (Reviewed in this issue.)

*Mathematics As Sign: Writing, Imagining, Counting*, by Brian Rotman.

Stanford University Press, September 2000. ISBN 0-804-73684-7.

\* *Mathematics: Frontiers and Perspectives*, V. Arnold, M. Atiyah, P. Lax, and B. Mazur, editors. AMS, December 1999. ISBN 0-8218-2697-2.

*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.

*My Numbers, My Friends: Popular Lectures on Number Theory*, by Paulo Ribenboim. Springer, February 2000. ISBN 0-387-98911-0.

*The Mystery of the Aleph: Mathematics, the Kabbalah, and the Human Mind*, by Amir D. Aczel. Four Walls Eight Windows, November 2000. ISBN 1-568-58105-X.

*Newton's Gift: How Sir Isaac Newton Unlocked the System of the World*, by David Berlinski. Free Press, October 2000. ISBN 0-684-84392-7.

*Niels Hendrik Abel and His Times: Called Too Soon by Flames Afar*, by Arild Stubhaug; translated by R. Daly. Springer, May 2000. ISBN 3-540-66834-9.

*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. (Reviewed November 2000.)

\* *The Parrot's Theorem*, by Denis Guedj. Weidenfeld & Nicolson, June 2000. ISBN 0-297-64578-1.

*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.

*The Pursuit of Perfect Packing*, by Tomaso Aste and Denis Weaire. Institute of Physics Publishing, July 2000. ISBN 0-750-30648-3.

*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.

*Small Worlds: The Dynamics of Networks between Order and Randomness*, 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).

*Stephen Smale: The Mathematician Who Broke the Dimension Barrier*, by Steve Batterson. AMS, February 2000. ISBN 0-8218-2045-1. (Reviewed December 2000.)

*Surfing through Hyperspace: Understanding Higher Universes in Six Easy Lessons*, by Clifford A. Pickover. Oxford University Press, September 1999. ISBN 0-195-13006-5.

*The Symbolic Universe: Geometry and Physics 1890-1930*, edited by Jeremy Gray. Oxford University Press, September 1999. ISBN 0-198-50088-2.

*Two Millennia of Mathematics: From Archimedes to Gauss*, by George M. Phillips. Springer, July 2000. ISBN 0-387-95022-2.

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

*The Universal Computer: The Road from Leibniz to Turing*, by Martin Davis. W. W. Norton & Company, October 2000. ISBN 0-393-04785-7.

\**The Universal History of Computing: From the Abacus to the Quantum Computer*, by Georges Ifrah (translated from the French and with notes by E. F. Harding; assisted by Sophie Wood, Ian Monk, Elizabeth Clegg, and Guido Waldman). John Wiley & Sons, November 2000. ISBN 0-471-39671-0.

*The Universal History of Numbers: From Prehistory to the Invention of the Computer*, by Georges Ifrah; translated from the French by David Bellos, E. F. Harding, 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.

\* *Where Mathematics Comes From: How the Embodied Mind Brings Mathematics into Being*, by George Lakoff and Rafael Nuñez. Basic Books, October 2000. ISBN 0-465-03770-4.

*The Wild Numbers*, by Philibert Schogt. Four Walls Eight Windows, April 2000. ISBN 1-568-58166-1. (Reviewed November 2000.)

*Women Becoming Mathematicians: Creating a Professional Identity in Post-World War II America*, by Margaret A. M. Murray. MIT Press, September 2000. ISBN 0-262-13369-5.

*Wonders of Numbers: Adventures in Math, Mind, and Meaning*, by Clifford A. Pickover. Oxford University Press, September 2000. ISBN 0-195-13342-0.

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

## Cultural Event

*Proof*, a play performed by Manhattan Theatre Club. Walter Kerr Theatre, 219 West 48th Street, New York, NY. World Wide Web: <http://www.ProofonBroadway.com/>. Opened October 24, 2000. (Reviewed October 2000.)

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\*Added to "Book List" since the list's last appearance.