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# 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

**November 15, 2002:** Applications for Postdoctoral Fellowships and General Memberships at MSRI. See <http://www.msri.org/>, or contact MSRI, 1000 Centennial Drive, Berkeley, CA 94720-5070.

**November 20, 2002:** Applications for NRC-Ford Foundation Predoctoral Fellowship Program. See "Mathematics Opportunities" in this issue.

**December 1, 2002:** Applications for AMS Centennial Fellowships. See <http://www.ams.org/employment/>

[centflyer.html](#), or contact: Professional Services Department, American Mathematical Society, 201 Charles Street, Providence, RI 02904-2294; telephone: 401-455-4107; email: [prof-serv@ams.org](mailto:prof-serv@ams.org).

**December 1, 2002:** Submissions for Sunyer i Balaguer Prize. Contact Centre de Recerca Matemàtica, Fundació Ferran Sunyer i Balaguer, Apartat 50, E-08193 Bellaterra, Spain; <http://www.crm.es/info/ffsb.htm>; email: [crm@crm.es](mailto:crm@crm.es).

## Where to Find It

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

**AMS Bylaws**—November 2001, p. 1205

**AMS Email Addresses**—November 2002, p. 1275

**AMS Ethical Guidelines**—June/July 2002, p. 706

**AMS Officers 2000 and 2001 (Council, Executive Committee, Publications Committees, Board of Trustees)**—June/July 2002, p. 705

**AMS Officers and Committee Members**—October 2002, p. 1108

**Backlog of Mathematics Research Journals**—September 2002, p. 963

**Conference Board of the Mathematical Sciences**—September 2002, p. 955

**Information for Notices Authors**—June/July 2002, p. 697

**Mathematics Research Institutes Contact Information**—August 2002, p. 828

**National Science Board**—February 2002, p. 237

**New Journals for 2001**—June/July 2002, p. 698

**NRC Board on Mathematical Sciences and Staff**—April 2002, p. 492

**NRC Mathematical Sciences Education Board and Staff**—May 2002, p. 583

**NSF Mathematical and Physical Sciences Advisory Committee**—March 2002, p. 345

**Program Officers for Federal Funding Agencies**—October 2002, p. 1103 (DoD, DoE); November 2002, p. 1278 (NSF Education Program Officers); December 2002, p. 1406 (DMS Program Officers)

**December 1, 2002:** Applications for NSF/NIH East Asia and Pacific Program. See <http://www.nsf.gov/pubs/2002/nsf02007/nsf02007.htm>.

**December 3, 2002:** NSF CARGO Program. See "Mathematics Opportunities" in this issue.

**December 4, 2002:** Applications for NRC-Ford Foundation Dissertation Fellowship Program. See "Mathematics Opportunities" in this issue.

**December 16, 2002:** Applications for AMS Epsilon Fund. See <http://www.ams.org/careers-edu/epsilon.html>, or contact Professional Services Department, AMS, 201 Charles Street, Providence, RI 02904; telephone: 800-321-4267, ext. 4105; email: [prof-serv@ams.org](mailto:prof-serv@ams.org).

**December 31, 2002:** Nominations for Alan T. Waterman Award. Contact Susan E. Fannoney, telephone: 703-292-8096 or email: [sfannone@nsf.gov](mailto:sfannone@nsf.gov).

**January 2, 2003:** Applications for postdoctoral positions at The Fields Institute. See "Mathematics Opportunities" in this issue.

**January 6, 2003:** Applications for National Defense Science and Engineering Graduate Fellowships. See "Mathematics Opportunities" in this issue.

**January 8, 2003:** Applications for NRC-Ford Foundation Postdoctoral Fellowship Program. See "Mathematics Opportunities" in this issue.

**January 10, 2003:** Applications for AAUW Selected Professions Fellowships. See <http://www.aauw.org/3000/fdnfelgra/selectprof.html>, or contact the AAUW Educational Foundation, 1111 Sixteenth St., N.W., Washington, DC 20036; telephone: 800-326-2289 (AAUW); fax: 202-872-1425; email: [info@aauw.org](mailto:info@aauw.org).

**January 15, 2003:** Applications for AMS-AAAS Mass Media Fellowships. See "Mathematics Opportunities" in this issue.

**January 15, 2003:** Applications for National Research Council Research Associateship Program. See "Mathematics Opportunities" in this issue.

**January 24, 2003:** Applications for AWM Workshop for Women Graduate Students and Postdocs. See <http://www.awm-math.org/>.

**January 31, 2003:** Applications for postdoctoral fellowships for Institut Mittag-Leffler. See <http://www.ml.kva.se/>.

**February 1, May 1, 2003:** Applications for NSF/AWM Travel Grants for Women. See <http://www.awm-math.org/travelgrants.html>; telephone: 301-405-7892; email: [awm@math.umd.edu](mailto:awm@math.umd.edu).

**March 1, 2003:** Nominations for Third World Academy of Science Prizes. See [http://www.ictp.trieste.it/~twas/twas\\_prizes.html](http://www.ictp.trieste.it/~twas/twas_prizes.html).

**March 3, 2003:** Applications for EDGE Summer Program. See "Mathematics Opportunities" in this issue.

**April 15, 2003:** Applications for National Research Council Research Associateship Program. See "Mathematics Opportunities" in this issue.

**April 18, 2003:** Full proposals for NSF IGERT program. See <http://www.nsf.gov/pubsys/ods/getpub.cfm?nsf02145/>.

**May 15, 2003:** Applications for fall semester of Math in Moscow and for AMS scholarships. See <http://www.mccme.ru/mathinmoscow/>, or contact Math in Moscow, P.O. Box 524, Wynnewood, PA 19096; fax: +7095-291-65-01; email: [mim@mccme.ru](mailto:mim@mccme.ru). For information about and application forms for the AMS scholarships, see <http://www.ams.org/careers-edu/mimoscow.html>, or contact Math in Moscow Program, Professional Services Department, American Mathematical Society, 201 Charles Street, Providence, RI 02904; email: [prof-serv@ams.org](mailto:prof-serv@ams.org).

**June 30, 2003:** Nominations for the Fermat Prize for Mathematics Research. See [http://www.ups-tlse.fr/ACTUALITES/Sciences/Prix\\_Fermat\\_2003/Areglement.html](http://www.ups-tlse.fr/ACTUALITES/Sciences/Prix_Fermat_2003/Areglement.html).

**August 15, 2003:** Applications for National Research Council Research Associateship Program. See "Mathematics Opportunities" in this issue.

### NSF Division of Mathematical Sciences

Listed below are names, email addresses, and telephone numbers for the program directors for the coming academic year in the Division of

Mathematical Sciences of the National Science Foundation.

#### *Algebra, Number Theory, and Combinatorics*

Andrew D. Pollington  
703-292-4877  
[adpollin@nsf.gov](mailto:adpollin@nsf.gov)

William M. Snyder  
703-292-4876  
[wmsnyder@nsf.gov](mailto:wmsnyder@nsf.gov)

Sylvia M. Wiegand  
703-292-4868  
[swiegand@nsf.gov](mailto:swiegand@nsf.gov)

#### *Analysis*

David Drasin  
703-292-4871  
[ddrasin@nsf.gov](mailto:ddrasin@nsf.gov)

Joe W. Jenkins  
703-292-4870  
[jjenkins@nsf.gov](mailto:jjenkins@nsf.gov)

Roger T. Lewis  
703-292-4872  
[rlewis@nsf.gov](mailto:rlewis@nsf.gov)

#### *Applied Mathematics*

Deborah F. Lockhart  
703-292-4858  
[dlockhar@nsf.gov](mailto:dlockhar@nsf.gov)

Hans G. Kaper  
703-292-4879  
[hkaper@nsf.gov](mailto:hkaper@nsf.gov)

John K. Shaw  
703-292-4859  
[kshaw@nsf.gov](mailto:kshaw@nsf.gov)

Michael H. Steuerwalt  
703-292-4860  
[msteuerw@nsf.gov](mailto:msteuerw@nsf.gov)

Henry A. Warchall  
703-292-4861  
[hwarcha@nsf.gov](mailto:hwarcha@nsf.gov)

#### *Computational Mathematics*

Paul E. Saylor  
703-292-4856  
[psaylor@nsf.gov](mailto:psaylor@nsf.gov)

Michael H. Steuerwalt  
703-292-4860  
[msteuerw@nsf.gov](mailto:msteuerw@nsf.gov)

*Infrastructure*  
Lloyd E. Douglas  
703-292-4862  
ldouglas@nsf.gov

Richard Millman  
703-292-4878  
rmillman@nsf.gov

*Statistics and Probability*  
Keith N. Crank  
703-292-4880  
kcrank@nsf.gov

Roger L. Berger  
703-292-4884  
rberger@nsf.gov

Marianthi Markatou  
703-292-4863  
mmarkato@nsf.gov

John Stufken  
703-292-4881  
jstufken@nsf.gov

*Geometric Analysis, Topology, and Foundations*  
Alexandre S. Freire  
703-292-8104  
afreire@nsf.gov

Benjamin M. Mann  
703-292-4867  
bmann@nsf.gov

Yongwu Rong  
703-292-4885  
yrong@nsf.gov

Christopher W. Stark  
703-292-4869  
cstark@nsf.gov

The administrative staff includes:  
**Division Director**  
William Rundell  
703-292-4850  
wrundell@nsf.gov

**Executive Officer**  
Bernard R. McDonald  
703-292-4851  
bmcdonal@nsf.gov

**Administrative Officer**  
Tyzcer L. Henson  
703-292-4852  
thenson@nsf.gov

The mailing address is: Division of Mathematical Sciences, National Science Foundation, Room 1025, 4201 Wilson Boulevard, Arlington, VA 22230; telephone: 703-292-8870; fax: 703-292-9032. The address for the Division's World Wide Web server is <http://www.nsf.gov/mps/dms/>.

### 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 [notices-booklist@ams.org](mailto:notices-booklist@ams.org).*

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

*The Algorithmic Beauty of Seaweeds, Sponges and Corals*, by Jap Kaandorp and Janet Kübler. Springer-Verlag, January 2001. ISBN 3-540-67700-3.

*The Annotated Flatland: A Romance of Many Dimensions*, Edwin A. Abbott; introduction and notes by Ian Stewart. Perseus Publishing, November 2001. ISBN 0-7382-0541-9. (Reviewed November 2002.)

*The Bit and the Pendulum: How the New Physics of Information Is Revolutionizing Science*, by Tom Siegfried. John Wiley & Sons, February 2000. ISBN 0-47132-174-5. (Reviewed August 2002.)

*The Book of Nothing: Vacuums, Voids, and the Latest Ideas about the Origins of the Universe*, by John D. Barrow. Pantheon Books, April 2001. ISBN 0-375-42099-1. (Reviewed June/July 2002.)

*Codes and Ciphers: Julius Caesar, the Enigma, and the Internet*, by Robert Churchhouse. Cambridge University Press, January 2002. ISBN 0-521-81054-X.

*The Colossal Book of Mathematics: Classic Puzzles, Paradoxes, and Problems*, by Martin Gardner. W. W. Norton & Company, August 2001. ISBN 0-393-02023-1. (Reviewed October 2002.)

*Conned Again, Watson! Cautionary Tales of Logic, Math, and Probability*, by Colin Bruce. Perseus Publishing, January 2001. ISBN 0-7382-0345-9. (Reviewed November 2002.)

*Conversations with a Mathematician: Math, Art, Science, and the Limits of Reason*, by Gregory J. Chaitin. Springer, November 2001. ISBN 1-85233-549-1.

*Curve Ball: Baseball, Statistics, and the Rules of Chance in the Game*, by Jim Albert and Jay Bennett. Copernicus-Springer Verlag, July 2001. ISBN 0-387-98816-5.

*Damned Lies and Statistics: Untangling Numbers from the Media, Politicians, and Activists*, by Joel Best. University of California Press, May 2001. ISBN 0-520-21978-3.

*Does God Play Dice? The New Mathematics of Chaos*, by Ian Stewart. Revised second edition, Blackwell, January 2002. ISBN 0-631-23251-6. (Reviewed in this issue.)

*Entanglement: The Greatest Mystery in Physics*, by Amir D. Aczel. Four Walls Eight Windows, October 2002. ISBN 1-56858-232-3.

*The Essential John Nash*, Harold Kuhn and Sylvia Nasar, editors. Princeton University Press, December 2001. ISBN 0-691-09527-2.

*Euclid's Window: The Story of Geometry from Parallel Lines to Hyperspace*, by Leonard Mlodinow. Free Press, April 2001. ISBN 0-684-86523-8. (Reviewed May 2002.)

*Flatterland: Like Flatland, Only More So*, by Ian Stewart. Perseus Publishing, May 2001. ISBN 0-7382-0442-0. (Reviewed April 2002.)

*Fooled by Randomness: The Hidden Role of Chance in the Markets and Life*, by Nassim Nicholas Taleb. Texere, October 2001. ISBN 1-587-99071-7.

*The Fractal Murders*, by Mark Cohen. Muddy Gap Press, May 2002. 0-9718986-0-X.

*Fragments of Infinity: A Kaleidoscope of Math and Art*, by Ivars Peterson. John Wiley & Sons, October 2001.

ISBN 0-471-16558-1. (Reviewed October 2002.)

*A Gardner's Workout: Training the Mind and Entertaining the Spirit*, by Martin Gardner. A K Peters, June 2001. ISBN 1-56881-120-9.

*Geometry: Our Cultural History*, by Audun Holme. Springer, April 2002. ISBN 3-540-41949-7.

*Go To: The Story of the Math Majors, Bridge Players, Engineers, Chess Wizards, Scientists and Iconoclasts Who Were the Hero Programmers of the Software Revolution*, by Steve Lohr. Basic Books, October 2001. ISBN 0-465-04225-2.

\* *God in the Equation: How Einstein Became the Prophet of the New Religious Era*, by Corey S. Powell. Free Press, August 2002. ISBN 0-684-86348-0.

*Gödel's Proof*, by Ernest Nagel and James R. Newman. Revised edition, New York University Press, February 2002. ISBN 0-8147-5816-9.

*The Hilbert Challenge*, by Jeremy J. Gray. Oxford University Press, December 2000. ISBN 0-198-50651-1. (Reviewed September 2002.)

\* *Hinged Dissections: Swinging and Twisting*, by Greg N. Frederickson. Cambridge University Press, September 2002. ISBN 0-521-81192-9.

*The Honors Class*, by Benjamin Yandell. A K Peters, December 2001. ISBN 1-568-81141-1. (Reviewed September 2002.)

*How the Other Half Thinks: Adventures in Mathematical Reasoning*, by Sherman Stein. McGraw-Hill, July 2001. ISBN 0-071-37339-X. (Reviewed September 2002.)

*How the Universe Got Its Spots*, by Janna Levin. Princeton University Press, April 2002. ISBN 0-691-09657-0.

*It Must Be Beautiful: Great Equations of Modern Science*, Graham Farmelo, editor. Granta Books, February 2002. ISBN 1-862-07479-8.

*The Lady Tasting Tea: How Statistics Revolutionized Science in the Twentieth Century*, by David Salsburg. W. H. Freeman & Co., April 2001. ISBN 0-716-74106-7.

*Lebesgue's Theory of Integration: Its Origins and Development*, by Thomas Hawkins. AMS, September 2001. ISBN 0-8218-2963-7.

\* *Linked: The New Science of Networks*, by Albert-Laslo Barabasi. Perseus Publishing, May 2002. ISBN 0-738-20667-9.

*The Mathematical Explorer*, by Stan Wagon. Electronic book, Wolfram Research, Inc., 2001. (Reviewed June/July 2002.)

*Mathematical Vistas*, by Peter Hilton, Derek Holton, and Jean Pedersen. Springer-Verlag, January 2002. ISBN 0-387-95064-8.

*A Mathematician Grappling with His Century: The Autobiography of Laurent Schwartz*. Translated from the French by L. Schneps. Birkhäuser, 2001. ISBN 3-7643-6052-6.

*The Mathematician Sophus Lie: It Was the Audacity of My Thinking*, by Arild Stubhaug. Springer, 2002. ISBN 3-540-42137-8.

*Mathematics and the Roots of Postmodern Thought*, by Vladimir Tasic. Oxford University Press, 2001. ISBN 0-195-13967-4.

\* *Mathematics Elsewhere: An Exploration of Ideas across Cultures*, by Marcia Ascher. Princeton University Press, September 2002. ISBN 0-691-07020-2.

*Mathematics Galore: Masterclasses, Workshops, and Team Projects in Mathematics and Its Applications*, by C. J. Budd and C. J. Sangwin. Oxford University Press, June 2001. ISBN 0-198-50769-0 (hardcover), 0-198-50770-4 (paperback). (Reviewed September 2002.)

*Mathematics in a Postmodern Age: A Christian Perspective*, Russell W. Howell and W. James Bradley, editors. Wm. B. Eerdmans Publishing Company, May 2001. ISBN 0-802-84910-5.

\* *The Mathematics of Oz: Mental Gymnastics from beyond the Edge*, by Clifford Pickover. Cambridge University Press, October 2002. ISBN 0-521-01678-9.

*The Measure of the World*, by Denis Guedj. University of Chicago Press, October 2001. ISBN 0-226-31030-2.

*More Mathematical Astronomy Morsels*, by Jean Meeus. Willmann-Bell Inc., 2002. ISBN 0-943396-743.

*A New Kind of Science*, by Stephen Wolfram. Wolfram Media, Inc., May 2002. ISBN 1-579-55008-8.

\* *Nexus: Small Worlds and the Groundbreaking Science of Networks*,

by Mark Buchanan. W. W. Norton & Company, May 2002. ISBN 0-393-04153-0.

*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. (Reviewed August 2002.)

*Political Numeracy: Mathematical Perspectives on Our Chaotic Constitution*, by Michael Meyerson. W. W. Norton & Company, March 2002. ISBN 0-393-04172-7.

*Puzzlers' Tribute: A Feast for the Mind*, Tom Rodgers, David Wolfe, editors. A K Peters, December 2001. ISBN 1-56881-121-7.

*The Quest for the Quantum Computer*, by Julian Brown. Touchstone Books, August 2001. ISBN 0-684-87004-5.

*Radical Equations: Math Literacy and Civil Rights*, by Robert P. Moses and Charles E. Cobb Jr. Beacon Press, February 2001. ISBN 0-807-03126-7. (Reviewed March 2002.)

*The Rainbow Bridge: Rainbows in Art, Myth, and Science*, by Raymond L. Lee Jr. and Alistair B. Fraser. Pennsylvania State University Press and SPIE Press, 2001. ISBN 0-271-01977-8. (Reviewed in this issue.)

*The Riddle of the Compass*, by Amir Aczel. Harcourt Brace, August 2001. ISBN 0-151-00506-0.

*Science and an African Logic*, by Helen Verran. University of Chicago Press, January 2002. ISBN 0-226-85389-6 (cloth), 0-226-85391-8 (paper).

*The Science of Conjecture: Evidence and Probability before Pascal*, by James Franklin. Johns Hopkins University Press, June 2001. ISBN 0-8018-6569-7.

*Signs of Life: How Complexity Pervades Biology*, by Richard Solé and Brian Goodwin. Basic Books, January 2001. ISBN 0-465-01927-7.

*Spaceland*, by Rudy Rucker. Tor Books, June 2002. ISBN 0-765-30366-3.

*Statisticians of the Centuries*, C. C. Heyde and E. Seneta, editors. Springer, September 2001. ISBN 0-387-953283-7.

*The Story of Mathematics*, by Richard Mankiewicz. Princeton University Press, February 2001. ISBN 0-691-08808-X. (Reviewed April 2002.)

*Such Silver Currents: The Story of William and Lucy Clifford, 1845-1929*, by M. Chisholm. Lutterworth Press, March 2002. ISBN 0-7188-3017-2.

*Things a Computer Scientist Rarely Talks About*, by Donald Knuth. Center for the Study of Language and Information, July 2001. ISBN 1-57586-327-8.

*Thinks*, by David Lodge. Viking Press, May 2001. ISBN 0-670-89984-4.

*Triangle of Thoughts*, by Alain Connes, André Lichnerowicz, and Marcel Paul Schützenberger. AMS, July 2001. ISBN 0-8218-2614-X. (Reviewed March 2002.)

*Turing and the Universal Machine: The Making of the Modern Computer*, by Jon Agar. Totem Books, June 2001. ISBN 1-840-46250-7.

*Understanding Mathematics for Aircraft Navigation*, by James S. Wolper. McGraw-Hill, May 2001. ISBN 0-07-137572-4.

*The Unfinished Revolution: Human-Centered Computers and What They Can Do for Us*, by Michael L. Dertouzos. Harperbusiness, January 2001. ISBN 0-066-62067-8.

*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. (Reviewed in two parts, January 2002 and February 2002.)

*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. (Reviewed in two parts, January 2002 and February 2002.)

*The Universe in a Nutshell*, by Stephen Hawking. Bantam Doubleday Dell, November 2001. ISBN 0-553-80202-X. (Reviewed May 2002.)

*What Shape Is a Snowflake?*, by Ian Stewart. W. H. Freeman & Co., November 2001. ISBN 0-716-74794-4. (Reviewed in this issue.)

*The Zen of Magic Squares, Circles, and Stars: An Exhibition of Surprising Structures across Dimensions*, by

Clifford A. Pickover. Princeton University Press, January 2001. ISBN 0-691-07041-5.

REFERENCE & BOOK LIST