

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 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

March 1, 2003: Applications for Christine Mirzayan Science and Technology Policy Internship Program. See "Mathematics Opportunities" in this issue.

March 1, 2003: Applications for 2003 George Washington University Summer Program for Women in Mathematics. See <http://www.gwu.edu/~math/spwm.html>, or contact the director, Murli M. Gupta (mmg@gwu.edu), Department of Mathematics, George Washington University, Washington, DC 20052; telephone 202-994-4857; fax 202-994-6760.

March 1, 2003: Nominations for Third World Academy of Science Prizes. See http://www.ictp.trieste.it/~twas/twas_prizes.html.

March 3, 2003: Applications for EDGE Summer Program. See <http://www.brynmawr.edu/Acads/Math/edge/edge.html>.

March 31, 2003: Nominations for the 2003 Prize for Achievement in Information-Based Complexity. For more information, contact Joseph Traub, traub@cs.columbia.edu.

Where to Find It

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

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—January 2003, p. 64

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

NRC Board on Mathematical Sciences and Their Applications—March 2003, p. 383

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

NSF Mathematical and Physical Sciences Advisory Committee—February 2003, p. 261

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)

April 8, 2003: Proposals for 2004 NSF-CBMS Regional Conferences. Contact Conference Board of the Mathematical Sciences, 1529-18th Street, NW, Washington, DC 20036-1385; telephone: 202-293-1170; fax: 202-293-3412; World Wide Web: http://www.cbmsweb.org/NSF/2004_call.htm; email: kolbe@math.georgetown.edu or rosier@math.georgetown.edu.

April 11, 2003: Applications for Project NEXt. See "Mathematics Opportunities" in this issue.

April 15, 2003: Applications for National Research Council Research Associateship Program. See <http://www4.nationalacademies.org/pga/rap.nsf/>, 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; email: rap@nas.edu.

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

April 30, 2003: Nominations for Maria Mitchell Women in Science Award. See "Mathematics Opportunities" in this issue.

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.

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. 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.

June 1, 2003: Applications for Christine Mirzayan Science and Technology Policy Internship Program. See "Mathematics Opportunities" in this issue.

June 30, 2003: Nominations for the Fermat Prize for Mathematics Research. See http://www.ups-tlse.fr/ACTUALITES/Sciences/Prix_Fermat_2003/Areglement.html.

July 15, 2003: Applications for Women's International Science Collaboration (WISC) Program. See "Mathematics Opportunities" in this issue.

August 15, 2003: Applications for National Research Council Research Associateship Program. See <http://www4.nationalacademies.org/pga/rap.nsf/>, 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; email: rap@nas.edu.

December 31, 2003: Entries for *Cryptologia* paper competitions. See <http://www.dean.usma.edu/math/pubs/cryptologia/>, or contact *Cryptologia*, Department of Mathematical Sciences, United States Military Academy, West Point, NY 10996; email: Cryptologia@usma.edu.

Board on Mathematical Sciences and Their Applications, National Research Council

Dimitris Bertsimas, MIT Sloan School of Management

Peter J. Bickel (chair), University of California, Berkeley

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Douglas Ravenel, University of Rochester

Stephen M. Robinson, University of Wisconsin, Madison

S. R. Srinivasa Varadhan, New York University

Scott Weidman (Director, BMSA), National Academy of Sciences

The postal address for BMSA is: Board on Mathematical Sciences and

Their Applications, National Academy of Sciences, Room TNA 924, 500-5th Street, NW, Washington, DC 20001; telephone 202-334-2421; fax 202-334-2422, 2101; World Wide Web http://www7.nationalacademies.org/bms/BMSA_Members.html.

Book List

The Book List highlights books that have mathematical themes and are aimed at a broad audience potentially including mathematicians, students, and 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.

*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 Art of the Infinite: The Pleasures of Mathematics*, by Robert Kaplan and Ellen Kaplan. Oxford University Press, March 2003. ISBN 0-195-14743-X.

Behind Deep Blue: Building the Computer That Defeated the World Chess Champion, by Feng-hsiung Hsu. Princeton University Press, November 2002. ISBN 0-691-09065-3.

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.)

The Constants of Nature: From Alpha to Omega—The Numbers That Encode the Deepest Secrets of the Universe, by John D. Barrow. Jonathan Cape, September 2002. Pantheon Books, January 2003. ISBN 0-375-42221-8.

Correspondance Grothendieck-Serre, Pierre Colmez and Jean-Pierre Serre, editors. Société Mathématique de France, 2001. ISBN 2-85629-104-X.

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. (Reviewed February 2003.)

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

* *Dr. Riemann's Zeros: The Search for the \$1 Million Solution to the Greatest Problem in Mathematics*, by Karl Sabbagh. Atlantic Books, November 2002. ISBN 1-843-54100-9.

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

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.)

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.

The Glass Wall: Why Mathematics Can Seem Difficult, by Frank Smith. Teachers College Press, July 2002. ISBN 0-807-74241-4 (paperback), 0-807-74242-2 (cloth).

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. New York University Press, revised edition, February 2002. ISBN 0-8147-5816-9.

* *The Golden Ratio: The Story of Phi, the World's Most Astonishing Number*, by Mario Livio. Broadway Books, October 2002. ISBN 0-767-90815-5.

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.

Indra's Pearls: The Vision of Felix Klein, by David Mumford, Caroline Series, and David J. Wright. Cambridge University Press, January 2002. ISBN 0-521-35253-3. (Reviewed January 2003.)

It Must Be Beautiful: Great Equations of Modern Science, Graham Farmelo, editor. Granta Books, February 2002. ISBN 1-862-07479-8. (Reviewed in this issue.)

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-László Barabási. 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 Reflections, by Peter Hilton, Derek Holton, and Jean Pedersen. Springer, December 1996. ISBN 0-387-94770-1. (Reviewed February 2003.)

Mathematical Vistas, by Peter Hilton, Derek Holton, and Jean Pedersen. Springer-Verlag, January 2002. ISBN 0-387-95064-8. (Reviewed February 2003.)

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 Post-modern 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 Millennium Problems: The Seven Greatest Unsolved Mathematical Puzzles of Our Time, by Keith J. Devlin. Basic Books, October 2002. ISBN 0-465-01729-0.

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. (Reviewed February 2003.)

Nexus: Small Worlds and the Ground-breaking 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 and David Wolfe, editors. A K Peters, December 2001. ISBN 1-56881-121-7.

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 December 2002.)

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 (paperback).

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 Permeates 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.

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

Wavelets through a Looking Glass: The World of the Spectrum, by Ola Bratteli and Palle Jorgensen. Birkhäuser/Springer, 2002. ISBN 0-8176-4280-3.

What Are the Odds? The Chances of Extraordinary Events in Everyday Life, by Jefferson Hane Weaver. Prometheus Books, February 2002. ISBN 1-573-92933-6.

What Shape Is a Snowflake?, by Ian Stewart. W. H. Freeman & Co., November 2001. ISBN 0-716-74794-4. (Reviewed December 2002.)

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. (Reviewed in this issue.)