
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

October 10, 2003: Applications for AWM Collaborative Research Grants for Women. See the AWM website, <http://www.awm-math.org/news/collab.html>.

October 15, 2003: Proposals for NSA Grant and Sabbatical Programs. See <http://www.nsa.gov/programs/msp/grants.html>.

October 15, 2003: Applications for spring semester of Math in Moscow

and for AMS scholarships. See <http://www.mccme.ru/mathinmoscow> or contact Math in Moscow, P.O. Box 524, Wynnwood, 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, Membership and Programs Department, American Mathematical Society, 201 Charles

Where to Find It

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

AMS Bylaws—November 2003 p. 1283

AMS Email Addresses—November 2003, p. 1266

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

AMS Officers 2002 and 2003 (Council, Executive Committee, Publications Committees, Board of Trustees)—May 2003, p. 594

AMS Officers and Committee Members—October 2003, p. 1115

Backlog of Mathematics Research Journals—September 2003, p. 961

Conference Board of the Mathematical Sciences—September 2003, p. 945

Information for Notices Authors—June/July 2003, p. 706

Mathematics Research Institutes Contact Information—August 2003, p. 821

National Science Board—January 2003, p. 64

New Journals for 2002—June/July 2003, p. 708

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

NRC Mathematical Sciences Education Board—April 2003, p. 489

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

Program Officers for Federal Funding Agencies—October 2003, p. 1107 (DoD, DoE); November 2002, p. 1278 (NSF Education Program Officers); December 2002, p. 1406 (DMS Program Officers)

Street, Providence, RI 02904; email: prof-serv@ams.org.

October 17, 2003: Applications for NSF Postdoctoral Research Fellowships. See <http://www.fastlane.nsf.gov/d11/D11Menu.htm>.

October 17, 2003: Applications for NSF Mathematical Sciences Postdoctoral Research Fellowships. See http://www.fastlane.nsf.gov/jsp/homepage/postdoc_fel.jsp; telephone: 703-306-1870; email: msprf@nsf.gov.

October 20, 2003: Applications for funding to attend MSRI workshop on Genetics of Complex Disease. See "Mathematics Opportunities" in this issue.

October 31, 2003: Entries for AWM essay contest. See <http://www.awm-math.org/biographies/content.html> or contact Victoria Howle, email: vhowle@sandia.gov.

November 1, 2003: Proposals for workshops at the AIM Research Conference Center. See <http://www.aimath.org/ARCC>.

November 1, 2003: Applications for NSF International Research Fellow Awards. See <http://www.nsf.gov/sbe/int/fellows/start.htm>.

November 1, 2003: Applications for 2004-2005 Fulbright spring/summer seminars in Germany, Korea, and Japan and for summer German Studies Seminar. Contact the Council for International Exchange of Scholars (CIES), 3007 Tilden Street, NW, Suite 5L, Washington, DC 20008-3009; telephone: 202-686-7877; email: apprequest@cies.iie.org; or see <http://www.cies.org>.

November 3, 2003: Applications for funding to attend MSRI workshop on Topology and Geometry of Real Algebraic Varieties. See "Mathematics Opportunities" in this issue.

November 14, 2003: Applications for support for MSRI programs for the 2004-2005 academic year. See "Mathematics Opportunities" in this issue.

November 24, 2003: Applications for funding to attend MSRI workshop on Mathematical Neuroscience. See "Mathematics Opportunities" in this issue.

December 1, 2003: Applications for funding to attend MSRI workshop

on Symplectic Geometry and Mathematical Physics. See "Mathematics Opportunities" in this issue.

December 1, 2003: Applications for NSF/NIH summer research program in Japan, Korea, and Taiwan. See "Mathematics Opportunities" in this issue.

December 1, 2003: 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; email: prof-serv@ams.org; telephone: 401-455-4107.

December 1, 2003: Submissions for Sunyer i Balaguer Prize. See <http://www.crm.es/home.htm>; email: crm@crm.es.

December 15, 2003: Applications for AMS Epsilon Fund grants. See <http://www.ams.org/careers-edu/epsilon.html> or contact Membership and Programs Department, AMS, 201 Charles Street, Providence, RI 02904; telephone: 800-321-4267, ext. 4105; email: prof-serv@ams.org.

December 22, 2003: Applications for funding to attend MSRI workshop on Algorithmic, Combinatorial, and Applicable Real Algebraic Geometry. See "Mathematics Opportunities" in this issue.

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.

January 2, 2004: Applications for Fields Institute postdoctoral fellowships. See <http://www.fields.utoronto.ca/proposals/postdoc.html>.

January 10, 2004: Applications for AAUW Educational Foundation Fellowships and Grants. See "Mathematics Opportunities" in this issue.

January 15, 2004: Applications for AMS-AAAS Mass Media Fellowships. See <http://ehrweb.aaas.org/masmedia.htm>; 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; email: amsdc@ams.org.

January 15, 2004: Nominations for Popov Prize. Contact Ronald A. DeVore, Director, Industrial Mathematics Institute, Department of Mathematics, University of South Carolina, Columbia, SC 29208.

February 1, 2004: Applications for AWM Travel Grants and AWM Mentoring Travel Grants. See <http://www.awm-math.org/travelgrants.html> or contact Association for Women in Mathematics, 4114 Computer and Space Sciences Building, University of Maryland, College Park, MD 20742-2461; telephone: 301-405-7892; email: awm@math.umd.edu.

February 1, 2004: Nominations for European Mathematical Society prizes. See <http://www.math.kth.se/4ecm/nomination.html> or write to: 4ECM Organizing Committee, Professor Ari Laptev, Department of Mathematics, Royal Institute of Technology, SE-100 44 Stockholm, Sweden; email: laptev@math.kth.se or uunur@nur.usr.pu.ru.

March 31, 2004: Nominations for Third World Academy of Sciences prizes. See "Mathematics Opportunities" in this issue.

May 1, 2004: Applications for AWM Travel Grants. See <http://www.awm-math.org/travelgrants.html> or contact Association for Women in Mathematics, 4114 Computer and Space Sciences Building, University of Maryland, College Park, MD 20742-2461; telephone: 301-405-7892; email: awm@math.umd.edu.

June 30, 2004: Proposals for DMS/NIGMS Program in Mathematical Biology. See <http://www.nsf.gov/pubs/2002/nsf02125/nsf02125.htm>.

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.

1089 and All That: A Journey into Mathematics, by David Acheson. Oxford University Press, July 2002. ISBN 0-19-851623-1.

Abel's Proof: An Essay on the Sources and Meaning of Mathematical Unsolvability, by Peter Pesic. MIT Press, May 2003. ISBN 0-262-16216-4.

After Math, by Miriam Webster. Zinka Press, June 1997. ISBN 0-9647-1711-5. (Reviewed October 2003.)

All the Mathematics You Missed (But Need to Know for Graduate School), by Thomas A. Garrity. Cambridge University Press, December 2001. ISBN 0-521-79707-1.

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.

Beyond the Limit: The Dream of Sofya Kovalevskaya, by Joan Spicci. Forge, August 2002. ISBN 0-765-30233-0.

* *California Dreaming: Reforming Mathematics Education*, by Suzanne M. Wilson. Yale University Press, January 2003. ISBN 0-300-09432-9. (Reviewed in this issue.)

Codebreakers: Arne Beurling and the Swedish Crypto Program during World War II, by Bengt Beckman. Translated by Kjell-Ove Widman. AMS, February 2003. ISBN 0-8218-2889-4. (Reviewed September 2003.)

The Constants of Nature: From Alpha to Omega—The Numbers That Encode the Deepest Secrets of the Universe, by John D. Barrow. 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. (Reviewed October 2003.)

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.)

Doing Mathematics: Convention, Subject, Calculation, Analogy, by Martin H. Krieger. World Scientific, April 2003. ISBN 9-812-38200-3.

Emergence of the Theory of Lie Groups. An Essay in the History of Mathematics, 1869-1926, by Thomas Hawkins. Springer-Verlag, 2000. ISBN 0-387-98963-3. (Reviewed June/July 2003.)

Four Colors Suffice: How the Map Problem Was Solved, by Robin Wilson. Princeton University Press, March 2003. ISBN 0-691-11533-8.

The Fractal Murders, by Mark Cohen. Muddy Gap Press, May 2002. 0-9718986-0-X. (Reviewed October 2003.)

Gamma: Exploring Euler's Constant, by Julian Havil. Princeton University Press, May 2003. ISBN 0-691-09983-9.

Geometrical Landscapes: The Voyages of Discovery and the Transformation of Mathematical Practice, by Amir R. Alexander. Stanford University Press, September 2002. ISBN 0-804-73260-4.

Geometry: Our Cultural Heritage, 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).

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.

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

Imagining Numbers (particularly the square root of minus fifteen), by Barry Mazur. Farrar, Straus and Giroux, February 2003. ISBN 0-374-17469-5. (Reviewed in this issue.)

In Code: A Mathematical Journey, by Sarah Flannery and David Flannery. Workman Publishing, May 2001. ISBN 0-761-12384-9. (Reviewed April 2003.)

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.)

Isaac Newton, by James Gleick. Pantheon Books, May 2003. ISBN 0-375-42233-1.

It Must Be Beautiful: Great Equations of Modern Science, Graham Farmelo, editor. Granta Books, February 2002. ISBN 1-862-07479-8. (Reviewed March 2003.)

Janos Bolyai, Euclid, and the Nature of Space, by Jeremy J. Gray. MIT Press, May 2003. ISBN 0-262-57174-9.

Kepler's Conjecture: How Some of the Greatest Minds in History Helped Solve One of the Oldest Math Problems in the World, by George G. Szpiro. John Wiley & Sons, January 2003. ISBN 0-471-08601-0.

Linked: The New Science of Networks, by Albert-László Barabási. Perseus Publishing, May 2002. ISBN 0-738-20667-9.

M. C. Escher's Legacy: A Centennial Celebration, edited by Doris Schattschneider and Michele Emmer. Springer, January 2003. ISBN 3-540-42458-X. (Reviewed April 2003.)

Math through the Ages: A Gentle History for Teachers and Others, by William P. Berlinghoff and Fernando Q. Gouvêa. Oxtown House, 2002. ISBN 1-881929-21-3.

Mathematical Apocrypha: Stories and Anecdotes of Mathematicians and the Mathematical, by Steven G. Krantz.

Mathematical Association of America, July 2002. ISBN 0-883-85539-9.

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.)

Mathematicians under the Nazis, by Sanford L. Segal. Princeton University Press, July 2003. ISBN 0-691-00451-X.

Mathematics: A Very Short Introduction, by Timothy Gowers. Oxford University Press, October 2002. ISBN 0-192-85361-9.

Mathematics and the Roots of Post-modern Thought, by Vladimir Tasić. Oxford University Press, 2001. ISBN 0-195-13967-4. (Reviewed August 2003.)

Mathematics by Experiment: Plausible Reasoning in the 21st Century, by David Bailey and Jonathan Borwein. A K Peters, September 2003. ISBN 1-568-81136-5.

Mathematics Elsewhere: An Exploration of Ideas across Cultures, by Marcia Ascher. Princeton University Press, September 2002. ISBN 0-691-07020-2. (Reviewed May 2003.)

The Mathematics of Juggling, by Burkard Polster. Springer, November 2002. ISBN 0-387-95513-5.

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. (Reviewed September 2003.)

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

The Music of the Primes: Searching to Solve the Greatest Mystery in Mathematics, by Marcus Du Sautoy. HarperCollins, April 2003. ISBN 0-066-21070-4.

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.

The One True Platonic Heaven: A Scientific Fiction of the Limits of Knowledge, by John L. Casti. Joseph Henry Press, May 2003. ISBN 0-309-08547-0.

Origami³, edited by Thomas Hull. A K Peters, July 2002. ISBN 1-568-81181-0.

Prime Obsession: Bernhard Riemann and the Greatest Unsolved Problem, by John Derbyshire. Joseph Henry Press, March 2003. ISBN 0-309-08549-7.

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.)

Remarkable Mathematicians, by Ioan James. Cambridge University Press, February 2003. ISBN 0-521-52094-0.

The Riemann Hypothesis: The Greatest Unsolved Problem in Mathematics, by Karl Sabbagh. Farrar Straus & Giroux, April 2003. ISBN 0-374-25007-3.

The Search for Certainty: A Philosophical Account of Foundations of Mathematics, by Marcus Giaquinto. Oxford University Press, October 2002. ISBN 0-198-75244-X.

Six Degrees: The Science of a Connected Age, by Duncan J. Watts. W. W. Norton & Company, February 2003. ISBN 0-393-04142-5.

Sync: The Emerging Science of Spontaneous Order, by Steven Strogatz. Hyperion, February 2003. ISBN 0-786-86844-9.

Travels in Four Dimensions: The Enigmas of Space and Time, by Robin Le Poidevin. Oxford University Press, February 2003. ISBN 0-19-875254-7.

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 March 2003.)