
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.ou.edu` in the case of the editor and `notices@ams.org` in the case of the managing editor. The fax numbers are 405-325-7484 for the editor and 401-331-3842 for the managing editor. Postal addresses may be found in the masthead.

Upcoming Deadlines

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 17, 2003: Applications for NRC-Ford Foundation Postdoctoral Fellowships. See [http://](http://www7.nationalacademies.org/fellowships/applyonline.html)

www7.nationalacademies.org/fellowships/applyonline.html.

December 22, 2003: Applications for funding to attend MSRI workshop on Algorithmic, Combinatorial, and Applicable Real Algebraic Geometry. See <http://www.msri.org/>.

December 31, 2003: Nominations for NSF Waterman Award. See <http://www.fastlane.nsf.gov/fastlane.jsp>.

December 31, 2003: Entries for *Cryptologia* paper competitions. See

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 2004, p. 54

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); December 2003, p. 1429 (DMS Program Officers); December 2003, p. 1430 (NSF Education Program Officers)

<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/programs/scientific/04-05/string-theory/>.

January 8, 2004: Proposals for the ONR Young Investigator Program. See "Mathematics Opportunities" in this issue.

January 9, 2004: Applications for National Defense Science and Engineering Graduate Fellowships. See <http://www.asee.org/ndseg/preface.cfm>.

January 10, 2004: Applications for AAUW Educational Foundation Fellowships and Grants. See <http://www.aauw.org/3000/fdnfelgra/selectprof.html>.

January 10, 2004: Grants for graduate students to attend Newton Institute course on random matrices and number theory. See "News from AIM" in "Mathematics Opportunities" in this issue.

January 14, 2004: Collaborations in Mathematical Geosciences. See "Mathematics Opportunities" in this issue.

January 15, 2004: Applications for AMS-AAAS Mass Media Fellowships. See <http://ehrweb.aaas.org/massmedia.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.

January 26, 2004: Scientific Computing Research Environments for the Mathematical Sciences. See "Mathematics Opportunities" in this issue.

January 31, 2004: Applications for postdoctoral fellowships at the Institut Mittag-Leffler. See <http://www.ml.kva.se>.

February 1, 2004: Applications for National Research Council Research Associateships. See <http://www4.nationalacademies.org/pga/rap.nsf>, or contact Research Associateship Programs, Keck Center of the National Academies, 500 Fifth Street, NW, GR322A, Washington, DC 20001; telephone 202-334-2760; fax 202-334-2759; email: rap@nas.edu.

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.

February 27, 2004: Nominations for Clay Mathematics Institute Liftoff Fellowships. See "Mathematics Opportunities" in this issue.

March 4, 2004: Applications for EDGE Summer Program. See <http://www.edgeforwomen.org/index.html>.

March 31, 2004: Nominations for 2004 Prize for Achievement in Information-Based Complexity. See "Mathematics Opportunities" in this issue.

March 31, 2004: Nominations for Third World Academy of Sciences prizes. See http://www.ictp.trieste.it/~twas/twas_prizes.html.

May 1, 2004: Applications for National Research Council Research Associateships. See <http://www4.nationalacademies.org/pga/rap.nsf>, or contact Research Associateship Programs, Keck Center of the National Academies, 500 Fifth Street, NW, GR322A, Washington, DC 20001;

telephone 202-334-2760; fax 202-334-2759; email: rap@nas.edu.

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>.

August 1, 2004: Applications for National Research Council Research Associateships. See <http://www4.nationalacademies.org/pga/rap.nsf>, or contact Research Associateship Programs, Keck Center of the National Academies, 500 Fifth Street, NW, GR322A, Washington, DC 20001; telephone 202-334-2760; fax 202-334-2759; email: rap@nas.edu.

National Science Board

The National Science Board (NSB) is the policymaking body for the National Science Foundation. Listed below are the current members of the NSB. For further information, visit the website <http://www.nsf.gov/nsb/>.

Barry C. Barish
Linde Professor of Physics
California Institute of Technology

Steven Beering
President Emeritus
Purdue University

Ray Bowen
Former President
Texas A&M University

Delores M. Etter
Professor of Electrical Engineering
United States Naval Academy

Nina V. Fedoroff
Willaman Professor of Life Sciences
Director, Life Sciences Consortium
Director, Biotechnology Institute
Pennsylvania State University

Pamela A. Ferguson
Professor of Mathematics
Grinnell College

Kenneth M. Ford
Director, Institute for Human and
Machine Cognition
University of West Florida

Daniel E. Hastings
Associate Director, Engineering
Systems Division
Massachusetts Institute of
Technology

Elizabeth Hoffman
President
University of Colorado System

Anita K. Jones
Quarles Professor of Engineering
and Applied Science
Department of Computer Science
University of Virginia

George M. Langford
Professor, Department of Biological
Science
Dartmouth College

Jane Lubchenco
Wayne and Gladys Valley Professor
of Marine Biology
Distinguished Professor
of Zoology
Oregon State University

Joseph A. Miller Jr.
Senior Vice President and Chief
Technology Officer
Corning, Inc.

Diana S. Natalicio (vice chair)
President
University of Texas at El Paso

Douglas D. Randall
Professor of Biochemistry
Director, Interdisciplinary Program
on Plant Biochemistry-Physiology
University of Missouri

Robert C. Richardson
Vice Provost for Research
Professor of Physics
Cornell University

Michael G. Rossmann
Hanley Distinguished Professor
of Biological Sciences
Purdue University

Maxine Savitz
General Manager
Honeywell and Technology
Partnerships (retired)

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

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

Jo Anne Vasquez
Past President, National Science
Teachers Association
Consultant, McGraw-Hill Companies

Warren M. Washington (chair)
Senior Scientist and Section Head
National Center for Atmospheric
Research

John A. White Jr.
Chancellor
University of Arkansas

Mark S. Wrighton
Chancellor
Washington University in St. Louis

Rita R. Colwell
(member ex officio)
Director, National Science
Foundation

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.

Beyond the Limit: The Dream of Sofya Kovalevskaya, by Joan Spicci. Forge, August 2002. ISBN 0-765-30233-0. (Reviewed in this issue.)

The Book of My Life, by Girolamo Cardano. New York Review of Books Classics Series/Granta. ISBN 1-590-17016-4.

Calculated Risks: How to Know When Numbers Deceive You, by Gerd Gigerenzer. Simon & Schuster, March 2003. ISBN 0-743-25423-6.

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

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. 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. (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.)

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

Einstein's Clocks, Poincaré's Maps: Empires of Time, by Peter Galison. W. W. Norton, August 2003. ISBN 0-393-02001-0.

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.)

* *Everything and More: A Compact History of Infinity*, by David Foster Wallace. W. W. Norton, October 2003. ISBN 0-393-00338-8.

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 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).

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 0-7679-0815-5.

Imagining Numbers (particularly the square root of minus fifteen), by

Barry Mazur. Farrar, Straus and Giroux, February 2003. ISBN 0-374-17469-5. (Reviewed November 2003.)

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

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

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. Oxtan 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 Constants, by Steven R. Finch. Cambridge University Press, August 2003. ISBN 0-521-81805-2.

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 Uni-

versity Press, July 2003. ISBN 0-691-00451-X.

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, 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.)

Mathematics for the Imagination, by Peter M. Higgins. Oxford University Press, November 2002. ISBN 0-198-60460-2.

The Mathematics of Juggling, by Burkard Polster. Springer, November 2002. ISBN 0-387-95513-5. (Reviewed in this issue.)

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

Memoirs of a Proof Theorist: Gödel and Other Logicians, by Gaisi Takeuti. Translated by Mariko Yasugi and Nicholas Passell. World Scientific, February 2003. ISBN 981-238-279-8.

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. Harper-Collins, 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.)

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.

*Origami*³, edited by Thomas Hull. A K Peters, July 2002. ISBN 1-568-81181-0.

Reference and Book List

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

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.

Science in the Looking Glass, by E. Brian Davies. Oxford University Press, August 2003. ISBN 0-19-852543-5.

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.

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 the Numbers Say: A Field Guide to Mastering Our Numerical World, by Derrick Niederman and David Boyum. Broadway Books, April 2003. ISBN 0-767-90998-4.

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.)