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

January 8, 2004: Proposals for the ONR Young Investigator Program. See http://www.onr.navy.mil/sci_tech/industrial/yip.htm.

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 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

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 2004, p. 242*

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)*

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 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 19, 2004: Proposals for NSF Interdisciplinary Grants in the Mathematical Sciences (IGMS) program. See http://www.nsf.gov/pubsys/ods/getpub.cfm?nsf04518.

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

March 1, 2004: Applications for summer program of the National Academies Science and Technology Policy Internship Program. See "Mathematics Opportunities" in this issue.

March 1, 2004: Summer Program for Women in Mathematics at George Washington University. 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 Third World Academy of Sciences prizes. See http://www.ictp.trieste.it/~twas/twas_prizes.html.

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

April 8, 2004: Proposals for 2005 NSF-CBMS Regional Conferences. See "Mathematics Opportunities" in this issue.

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 1, 2004: Applications for fall program of the National Academies Science and Technology Policy Internship Program. See "Mathematics Opportunities" in this issue.

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.

September 30, 2004: Nominations for Information-Based Complexity Young Researcher Award. See "Mathematics Opportunities" in this issue.

January 1, 2005: *Cryptologia* paper competitions. See "Mathematics Opportunities" in this issue.

MPS Advisory Committee

Following are the names and affiliations of the members of the Advisory Committee for Mathematical and Physical Sciences (MPS) of the National Science Foundation. The date of the expiration of each member's term is given after his or her name. The website for the MPS directorate may be found at http://www.nsf.gov/home/mps/. The postal address is Directorate for the Mathematical and Physical Sciences, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230.

Thomas W. Appelquist (10/04)
Department of Physics
Yale University

Shenda Baker (10/05)
Department of Chemistry
Harvey Mudd College

Roger D. Blandford (10/04)
Division of Physics, Mathematics, and Astronomy
California Institute of Technology

Janet M. Conrad (10/06)
Department of Physics
Columbia University

Luis Echegoyen (MPSAC/CEOSE liaison through 1/31/06)
Department of Chemistry
Clemson University

Mostafa El-Sayed (10/06)
School of Chemistry and Biochemistry
Georgia Institute of Technology

Lucy Fortson (10/06)
Adler Planetarium

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 January 2004.)

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.)

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 & Company, 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. (Reviewed in this issue.)

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.

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.

* *How Economics Became a Mathematical Science*, by E. Roy Weintraub. Duke University Press, June 2002. ISBN 0-822-32856-9.

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

* *Infinity: The Quest to Think the Unthinkable*, by Brian Clegg. Carroll & Graf, December 2003. ISBN 0-786-71285-6.

* *Information: The New Language of Science*, by Hans Christian von Baeyer. Weidenfeld & Nicolson, October 2003. ISBN 0-297-60725-1 (hardcover), 0-753-81782-9 (paperback).

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. (Reviewed in this issue.)

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. Oxton 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.

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 Postmodern 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.)

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 January 2004.)

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. HarperCollins, April 2003. ISBN 0-066-21070-4.

* *On the Nature of Human Romantic Interaction*, by Karl Iagnemma. Dial Press, April 2003. ISBN 0-385-33593-8.

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.

* *Predicting Presidential Elections and Other Things*, by Ray C. Fair. Stanford University Press, August 2002. ISBN 0-804-74509-9.

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

* *Proofs from the Book*, by Martin Aigner and Günter M. Ziegler. Springer-Verlag, third edition, December 2003. ISBN 3-540-40460-0.

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. (Reviewed in this issue.)

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 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.)