

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 10, 2005: Applications for AAUW Selected Professions Fellowships. See <http://www.aauw.org/>

[fga/fellowships_grants/selected.cfm](#) 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.

January 13, 2005: Proposals for ONR Young Investigator Program. See http://www.onr.navy.mil/sci_tech/industrial/363/yip.asp.

January 31, 2005: Applications for postdoctoral fellowships at the Mittag-Leffler Institute. See <http://www.ml.kva.se/grants>.

February 1, 2005: Applications for February review for National Academies Postdoctoral and Senior Research Associateship Programs. See "Mathematics Opportunities" in this issue.

February 1, 2005: Applications for AWM Collaborative Research Grants for Women. See <http://www.awm-math.org/travelgrants.html#collaborative>; telephone 301-405-7892; email: awm@math.umd.edu.

February 1, 2005: Applications for AWM Travel Grants and AWM Mentoring Travel Grants. See the AWM website, <http://www.awm-math.org>.

Where to Find It

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

AMS Bylaws—November 2003, p. 1283

AMS E-mail Addresses—December 2004, p. 1365

AMS Ethical Guidelines—June/July 2004, p. 675

AMS Officers 2002 and 2003 (Council, Executive Committee, Publications Committees, Board of Trustees)—May 2004, p. 566

AMS Officers and Committee Members—October 2004, p. 1082

Conference Board of the Mathematical Sciences—September 2004, p. 921

Information for Notices Authors—June/July 2004, p. 670

Mathematics Research Institutes Contact Information—August 2004, p. 810

National Science Board—January 2005, p. 76

New Journals for 2003—June/July 2004, p. 672

NRC Board on Mathematical Sciences and Their Applications—March 2004, p. 350

NRC Mathematical Sciences Education Board—April 2004, p. 446

NSF Mathematical and Physical Sciences Advisory Committee—February 2005, p. 261

Program Officers for Federal Funding Agencies—October 2004, p. 1078 (DoD, DoE); December 2004, p. 1368 (NSF)

org/travelgrants.html; telephone: 301-405-7892; email: awm@math.umd.edu.

February 4, 2005: Preproposals for NSF IGERT competition. See “Mathematics Opportunities” in this issue.

February 15, 2005: Nominations for Clay Mathematics Institute Liftoff Program. See the website http://claymath.org/fas/liftoff_fellows/.

February 28, 2005: Applications for Clay Mathematics Institute 2005 Summer School. See “Mathematics Opportunities” in this issue.

March 1, 2005: Applications for summer program of the Christine Mirzayan Science and Technology Policy Graduate Fellowship Program of the National Academies. See “Mathematics Opportunities” in this issue.

March 1, 2005: Applications for Summer Program for Undergraduate Women in Mathematics at George Washington University. See <http://www.gwu.edu/~math/spwm.html>.

March 1, 2005: Applications for EDGE Summer Program. See website at <http://www.edgeforwomen.org/index.html>.

March 1, 2005: Applications for IMA New Directions visiting professorships at IMA. See <http://www.ima.umn.edu/docs/membership.html>.

April 1, 2005: Applications for IMA New Directions Short Course. See <http://www.ima.umn.edu/newdirections/2005NDshort-course/NDcourse-app.php>.

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

May 1, 2005: Applications for AWM Travel Grants. See the AWM website, <http://www.awm-math.org/travelgrants.html>; telephone: 301-405-7892; email: awm@math.umd.edu.

June 1, 2005: Applications for fall program of the Christine Mirzayan Science and Technology Policy Graduate Fellowship Program of the National Academies. See “Mathematics Opportunities” in this issue.

June 2, 2005: Applications for NSF University-Industry Cooperative Research Programs in the Mathematical Sciences (UICRP). See <http://www.nsf.gov/pubsys/ods/getpub.cfm?nsf05504>.

June 30, 2005: Nominations for the 2005 Fermat Prize. See http://www.ups-tlse.fr/ACTUALITES/Sciences/Prix_Fermat_2004/Areglement.html.

January 1, 2006: Applications for ICM 2006 Travel Grants. See <http://www.icm2006.org> or email: grants@icm2006.org.

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.

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

Lars Bildsten (10/07)
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University of California,
Santa Barbara

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

Susan Coppersmith (10/07)
Department of Physics
University of Wisconsin

Luis Echegoyen (10/06)
Department of Chemistry
Clemson University

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

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Adler Planetarium

Jean H. Futrell (10/05)
Director

Pacific Northwest National
Laboratory

Peter F. Green (10/05)
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University of Texas, Austin

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Jon R. Kettenring (10/06)
Charles A. Dana Research Institute
Drew University

Robert V. Kohn (10/07)
Courant Institute
New York University

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Duke University

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Sciences
Harvard University

Claudia Neuhauser (10/05)
Professor and Director of Graduate
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Ecology, Evolution and Behavior
University of Minnesota

Eve Ostriker (10/07)
Department of Astronomy
University of Maryland

David W. Oxtoby (10/07)
Office of President
Pomona College

Marcia J. Rieke (10/07)
Steward Observatory 262
University of Arizona

Gary Sanders (10/05)
Thirty Meter Telescope Project
California Institute of Technology

Elizabeth H. Simmons (10/07)
Department of Physics
and Astronomy
Michigan State University

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-book-list@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. (Reviewed in this issue.)

* *13: The Story of the World's Most Popular Superstition*, by Nathaniel Lachenmeyer. Thunder's Mouth Press, October 2004. ISBN 1-568-58306-0.

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. (Reviewed March 2004.)

Across the Board: The Mathematics of Chessboard Problems, by John J.

Watkins. Princeton University Press, April 2004. ISBN 0-691-11503-6.

Adam Spencer's Book of Numbers, by Adam Spencer. Four Walls Eight Windows, January 2004. ISBN 1-568-58289-7.

Alan Turing: Life and Legacy of a Great Thinker, edited by Christof Teuscher. Springer, 2004. ISBN 3-540-20020-7.

* *Alfred Tarski: Life and Logic*, by Anita Burdman Feferman and Solomon Feferman. Cambridge University Press, October 2004. ISBN 0-521-80240-7.

Alpha and Omega: The Search for the Beginning and End of the Universe, by Charles Seife. Viking, July 2003. ISBN 0-670-03179-8.

Automated Reasoning and the Discovery of Missing and Elegant Proofs, by Larry Wos and Gail Pieper. Rinton Press, December 2003. ISBN 1-58949-023-1.

Beyond Coincidence, by Martin Plimmer and Brian King. Icon Books, March 2004. ISBN 1-840-46534-4.

The Changing Shape of Geometry: Celebrating a Century of Geometry and Geometry Teaching, edited by Chris Pritchard. Cambridge University Press, January 2003. ISBN 0-521-53162-4.

Cogwheels of the Mind: The Story of Venn Diagrams, by A. W. F. Edwards. Johns Hopkins University Press, April 2004. ISBN 0-801-87434-3.

Constantin Carathéodory: Mathematics and Politics in Turbulent Times, by M. Georgiadou. Springer, September 2004. ISBN 3-540-44258-8.

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. (Reviewed November 2004.)

Count Down: Six Kids Vie for Glory at the World's Toughest Math Competition, by Steve Olson. Houghton Mifflin, April 2004. ISBN 0-618-25141-3. (Reviewed August 2004.)

The Curious Life of Robert Hooke, the Man Who Measured London, by Lisa Jardine. HarperCollins, February 2004. ISBN 0-060-53897-X.

Everything and More: A Compact History of Infinity, by David Foster

Wallace. W. W. Norton, October 2003. ISBN 0-393-00338-8. (Reviewed June/July 2004.)

The Fabric of the Cosmos, by Brian Greene. Knopf, February 2004. ISBN 0-375-41288-3.

Fields Medalists' Lectures, edited by Sir Michael Atiyah and Daniel Iagolnitzer. World Scientific, 2nd edition, December 2003. ISBN 9-812-38259-3.

* *From Eudoxus to Einstein: A History of Mathematical Astronomy*, by C. M. Linton. Cambridge University Press, August 2004. ISBN 0-521-82750-7.

From Newton to Hawking: A History of Cambridge University's Lucasian Professors of Mathematics, edited by Kevin C. Knox and Richard Noakes. Cambridge University Press, November 2003. ISBN 0-521-66310-5.

Gamma: Exploring Euler's Constant, by Julian Havil. Princeton University Press, May 2003. ISBN 0-691-09983-9. (Reviewed August 2004.)

Geometry: Our Cultural Heritage, by Audun Holme. Springer, April 2002. ISBN 3-540-41949-7. (Reviewed May 2004.)

Gödel's Proof, by Ernest Nagel and James R. Newman. New York University Press, revised edition, February 2002. ISBN 0-8147-5816-9. (Reviewed March 2004.)

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.

A Handbook of Mathematical Discourse, by Charles Wells. Infinity Publishing Company, 2003. ISBN 0-7414-1685-9. (Reviewed September 2004.)

* *The Heart of Mathematics: An Invitation to Effective Thinking*, by Edward B. Burger and Michael Starbird. Key College Publishing (Springer-Verlag), April 2000. ISBN 0-555953-407-9. (Reviewed in this issue.)

Karl Pearson: The Scientific Life in a Statistical Age, by Theodore M. Porter. Princeton University Press, February 2004. ISBN 0-691-11445-5.

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.

- Wiley, January 2003. ISBN 0-471-08601-0. (Reviewed January 2005.)
- * *The Knot Book: An Elementary Introduction to the Mathematical Theory of Knots*, Colin C. Adams. AMS, September 2004. ISBN 0-8218-3678-1.
- * *The Liar Paradox and the Towers of Hanoi: The Ten Greatest Math Puzzles of All Time*, by Marcel Danesi. Wiley, August 2004. ISBN 0-471-64816-7.
- Masters of Theory: Cambridge and the Rise of Mathematical Physics*, by Andrew Warwick. University of Chicago Press, July 2003. ISBN 0-226-87375-7.
- * *Math Magic: How to Master Everyday Math Problems*, by Scott Flansburg. Perennial Currents, revised edition, August 2004. ISBN 0-060-72635-0.
- 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. (Reviewed October 2004.)
- The Mathematical Century: The 30 Greatest Problems of the Last 100 Years*, by Piergiorgio Odifreddi, translated by Arturo Sangalli. Princeton University Press, May 2004. ISBN 0-691-09294-X.
- Mathematical Journeys*, by Peter D. Schurer. Wiley-Interscience, February 2004. ISBN 0-471-22066-3.
- A Mathematician's Survival Guide: Graduate School and Early Career Development*, by Steven G. Krantz. AMS, August 2003. ISBN 0-8218-3455-X. (Reviewed April 2004.)
- Mathematicians as Enquirers: Learning about Learning Mathematics*, edited by Leone Burton. Kluwer, April 2004. Hardbound, ISBN 1-4020-7853-6; paperback, ISBN 1-4020-7859-5; eBook, ISBN 1-4020-7908-7.
- 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. (Reviewed in this issue.)
- Mathematics and Culture I*, edited by Michele Emmer. Springer, January 2004. ISBN 3-540-01770-4.
- Mathematics and War*, edited by Bernhelm Booss-Bavnbek and Jens Høyrup. Birkhäuser, December 2003. ISBN 3-764-31634-9.
- Mathematics, Art, Technology, and Cinema*, edited by Michele Emmer and Mirella Manaresi. Springer, 2003. ISBN 3-540-00601-X.
- Mathematics in Nature: Modeling Patterns in the Natural World*, by John Adam. Princeton University Press, November 2003. ISBN 0-691-11429-3.
- Meta Math! The Quest for Omega*, by Gregory J. Chaitin. April 2004. Available at <http://www.cs.umaine.edu/~chaitin/omega.html>.
- 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.
- Newton's Apple: Isaac Newton and the English Scientific Renaissance*, by Peter Aughton. Weidenfeld & Nicolson, October 2003. ISBN 0-297-84321-4.
- The Number π* , by Pierre Eymard and Jean-Pierre Lafon. AMS, 2004. ISBN 0-8218-3246-8.
- Number Theory from an Analytic Point of View*, by Badih Ghusayni. Komati, December 2003. ISBN 9953-0-0282-7.
- Phase Change: The Computer Revolution in Science and Mathematics*, by Douglas S. Robertson. Oxford University Press, March 2003. ISBN 0-195-15748-6.
- Portraits of the Earth: A Mathematician Looks at Maps*, by Timothy G. Feeman. AMS, September 2002. ISBN 0-8218-3255-7.
- Prime Obsession: Bernhard Riemann and the Greatest Unsolved Problem*, by John Derbyshire. Joseph Henry Press, March 2003. ISBN 0-309-08549-7.
- Probability Theory: The Logic of Science*, by E. T. Jaynes, edited by G. Larry Bretthorst. Cambridge University Press, April 2003. ISBN 0-521-59271-2.
- The Reader of Gentlemen's Mail: Herbert O. Yardley and the Birth of American Codebreaking*, by David Kahn. Yale University Press, March 2004. ISBN 0-300-09846-4.
- The Riemann Hypothesis: The Greatest Unsolved Problem in Mathematics*, by Karl Sabbagh. Farrar Straus & Giroux, April 2003. ISBN 0-374-25007-3.
- The Saga of Mathematics: A Brief History*, by Marty Lewinter and William Widulski. Prentice Hall, January 2002. ISBN 0-130-34079-0.
- Shooting the Sun*, by Max Byrd. Bantam, December 2003. ISBN 0-553-80208-9.
- Signs of the Inka Khipu: Binary Coding in the Andean Knotted-String Records*, by Gary Urton. University of Texas Press, August 2003. ISBN 0-292-78540-2.
- Strange Curves, Counting Rabbits, and Other Mathematical Explorations*, by Keith Ball. Princeton University Press, November 2003. ISBN 0-691-11321-1. (Reviewed in December 2004.)
- Sync: The Emerging Science of Spontaneous Order*, by Steven Strogatz. Hyperion, February 2003. ISBN 0-786-86844-9. (Reviewed March 2004.)
- Towards a Philosophy of Real Mathematics*, by David Corfield. Oxford University Press, April 2003. ISBN 0-521-81722-6.
- * *The Universal Book of Mathematics: From Abracadabra to Zeno's Paradoxes*, by David Darling. Wiley, July 2004. ISBN 0-471-27047-4.
- * *You Can Do the Math: Overcome Your Math Phobia and Make Better Financial Decisions*, by Ron Lipsman. Praeger Publishers, November 2004. ISBN 0-275-98341-2.