

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.wustl.edu in the case of the editor and notices@ams.org in the case of the managing editor. The fax numbers are 314-935-6839 for the editor and 401-331-3842 for the managing editor. Postal addresses may be found in the masthead.

Upcoming Deadlines

April 30, 2012: Nominations for AWM Gweneth Humphreys Award. See www.awm-math.org, telephone: 703-934-0163, or email: awm@awm-math.org.

May 1, 2012: Letters of intent for NSF Integrative Graduate Education and Research Training (IGERT) program. See the website http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12759.

May 1, 2012: Applications for National Academies Research Associateship Programs. See

http://sites.nationalacademies.org/PGA/RAP/PGA_050491 or contact Research Associateship Programs, National Research Council, Keck 568, 500 Fifth Street, NW, Washington, DC 20001; telephone: 202-334-2760; fax: 202-334-2759; email: rap@nas.edu

May 1, 2012: Applications for National Academies Christine Mirzayan Graduate Fellowship Program for fall 2012. See the website <http://sites.nationalacademies.org/PGA/policyfellows/index.htm> or contact The National Academies Christine Mirzayan Science and Technology Policy Graduate Fellowship Program, 500 Fifth Street, NW, Room 508, Washington, DC 20001; telephone: 202-334-2455; fax: 202-334-1667; email: policyfellows@nas.edu.

May 1, 2012: Applications for AWM Travel Grants. See <http://www.awm-math.org/travelgrants>.

[html#standard](http://www.awm-math.org/html#standard) or contact Association for Women in Mathematics, 11240 Waples Mill Road, Suite 200, Fairfax, VA 22030; 703-934-0163; awm@awm-math.org.

May 4, 2012: Applications for Math for America Early Career Fellowship in New York City. See "Mathematics Opportunities" in this issue.

May 15–June 15, 2012: Proposals for NSF DMS Workforce Program in the Mathematical Sciences. See http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503233.

June 15, 2012: Deadline for nominations for 2012 Parzen Prize for Statistical Innovations. See "Mathematics Opportunities" in this issue.

June 30, 2012: Deadline for nominations for SASTRA Ramanujan Prize. See "Mathematics Opportunities" in this issue.

July 2, 2012: Full proposals for NSF Integrative Graduate Education and Research Training (IGERT) program.

Where to Find It

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

AMS Bylaws—January 2012, p. 73

AMS Email Addresses—February 2012, p. 328

AMS Ethical Guidelines—June/July 2006, p. 701

AMS Officers 2010 and 2011 Updates—May 2012, p. 708

AMS Officers and Committee Members—October 2011, p. 1311

Conference Board of the Mathematical Sciences—September 2011, p. 1142

IMU Executive Committee—December 2011, p. 1606

Information for Notices Authors—June/July 2011, p. 845

Mathematics Research Institutes Contact Information—August 2011, p. 973

National Science Board—January 2012, p. 68

NRC Board on Mathematical Sciences and Their Applications—March 2012, p. 444

NRC Mathematical Sciences Education Board—April 2011, p. 619

NSF Mathematical and Physical Sciences Advisory Committee—May 2012, p. 697

Program Officers for Federal Funding Agencies—October 2011, p. 1306 (DoD, DoE); December 2011, p. 1606 (NSF Mathematics Education)

Program Officers for NSF Division of Mathematical Sciences—November 2011, p. 1472

See http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12759.

July 10, 2012: Full proposals for NSF Research Networks in the Mathematical Sciences. See http://www.nsf.gov/pubs/2010/nsf10584/nsf10584.htm?WT.mc_id=USNSF_25&WT.mc_ev=click.

August 1, 2012: Applications for National Academies Research Associateship Programs. See http://sites.nationalacademies.org/PGA/RAP/PGA_050491 or contact Research Associateship Programs, National Research Council, Keck 568, 500 Fifth Street, NW, Washington, DC 20001; telephone: 202-334-2760; fax: 202-334-2759; email: rap@nas.edu.

August 14, 2012: Full proposals for NSF Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) program. See <http://www.nsf.gov/pubs/2012/nsf12529/nsf12529.htm>.

September 15, 2012: Applications for spring 2013 semester of Math in Moscow. See <http://www.mccme.ru/mathinmoscow> or write to: Math in Moscow, P.O. Box 524, Wynnwood, PA 19096; fax: +7095-291-65-01; email: mim@mccme.ru. Information and application forms for the AMS scholarships are available on the AMS website at <http://www.ams.org/programs/travel-grants/mimoscow> or by writing to: Math in Moscow Program, Membership and Programs Department, American Mathematical Society, 201 Charles Street, Providence, RI 02904-2294; email: student-serv@ams.org.

October 1, 2012: Applications for AWM Travel Grants. See <http://www.awm-math.org/travelgrants.html#standard> or contact Association for Women in Mathematics, 11240 Waples Mill Road, Suite 200, Fairfax, VA 22030; 703-934-0163; awm@awm-math.org.

October 17, 2012: Proposals for NSF Postdoctoral Research Fellowships. See "Mathematics Opportunities" in this issue.

November 1, 2012: Applications for National Academies Research Associateship Programs. See http://sites.nationalacademies.org/PGA/RAP/PGA_050491 or contact Research Associateship Programs, National Research Council, Keck 568,

500 Fifth Street, NW, Washington, DC 20001; telephone: 202-334-2760; fax: 202-334-2759; email: rap@nas.edu.

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 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.

Taft Armandorff (09/12)
W. M. Keck Observatory
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James Berger (chair) (09/14)
Department of Statistical Science
Duke University

Daniela Bortoletto (09/14)
Department of Physics
Purdue University

Emery N. Brown (09/14)
Massachusetts Institute of Technology

R. Paul Butler (09/13)
Department of Terrestrial Magnetism
Carnegie Institution of Washington

Kevin Corlette (09/12)
Department of Mathematics
University of Chicago

Eric A. Cornell (09/13)
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Francis J. DiSalvo Jr. (09/14)
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Carnegie Mellon University

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University of Michigan

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Juan C. Meza (09/13)
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University of California, San Diego

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North Hennepin Community College

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School of Chemical and Biomolecular Engineering
Georgia Institute of Technology

Fred S. Roberts (09/12)
DIMACS
Rutgers University

Esther S. Takeuchi (09/13)
State University of New York, Buffalo

Geoffrey West (09/14)
Santa Fe Institute
Santa Fe, NM

Book List

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

**Adventures in Group Theory: Rubik's Cube, Merlin's Machine, and Other Mathematical Toys*, by David Joyner. Johns Hopkins University Press (second edition), December 2008. ISBN: 978-08018-9013-0.

The Adventure of Reason: Interplay between Philosophy of Mathematics and Mathematical Logic, 1900-1940, by Paolo Mancosu. Oxford University Press, January 2011. ISBN-13: 978-01995-465-34.

**The Annotated Turing: A Guided Tour Through Alan Turing's Historic Paper on Computability and the Turing Machine*, by Charles Petzold. Wiley, June 2008. ISBN-13: 978-04702-290-57. (Reviewed September 2011.)

The Autonomy of Mathematical Knowledge: Hilbert's Program Revisited, by Curtis Franks. Cambridge University Press, December 2010. ISBN-13: 978-05211-838-95.

The Beginning of Infinity: Explanations That Transform the World, by David Deutsch. Viking Adult, July 2011. ISBN-13: 978-06700-227-55. (Reviewed April 2012.)

The Best Writing on Mathematics: 2010, edited by Mircea Pitici. Princeton University Press, December 2010. ISBN-13: 978-06911-484-10. (Reviewed November 2011.)

The Big Questions: Mathematics, by Tony Crilly. Quercus, April 2011. ISBN-13: 978-18491-624-01.

The Blind Spot: Science and the Crisis of Uncertainty, by William Byers. Princeton University Press, April 2011. ISBN-13: 978-06911-468-43.

The Calculus of Selfishness, by Karl Sigmund. Princeton University Press, January 2010. ISBN-13: 978-06911-427-53. (Reviewed January 2012.)

Chasing Shadows: Mathematics, Astronomy, and the Early History of Eclipse Reckoning, by Clemency Montelle. Johns Hopkins University Press, April 2011. ISBN-13: 978-08018-969-10. (Reviewed March 2012.)

Crafting by Concepts: Fiber Arts and Mathematics, by Sarah-Marie Belcastro and Carolyn Yackel. A K Peters/CRC Press, March 2011. ISBN-13: 978-15688-143-53.

The Crest of the Peacock: Non-European Roots of Mathematics, by George Gheverghese Joseph. Third edition. Princeton University Press, October 2010. ISBN: 978-0-691-13526-7.

Cycles of Time: An Extraordinary New View of the Universe, by Roger Penrose. Knopf, May 2011. ISBN-13: 978-03072-659-06.

Divine Machines: Leibniz and the Sciences of Life, by Justin E. H. Smith. Princeton University Press, May 2011. ISBN-13: 978-06911-417-87.

An Early History of Recursive Functions and Computability from Gödel to Turing, by Rod Adams. Docent Press, May 2011. ISBN-13: 978-09837-004-01.

**Elegance with Substance*, by Thomas Colignatus. Dutch University Press, 2009. ISBN 978-90361-013-87.

Emmy Noether's Wonderful Theorem, by Dwight E. Neuenschwander. Johns Hopkins University Press, November 2010. ISBN-13: 978-08018-969-41.

The Evolution of Logic, by W. D. Hart. Cambridge University Press, August 2010. ISBN-13: 978-0-521-74772-1

Experimental and Computational Mathematics: Selected Writings, by Jonathan Borwein and Peter Borwein. PSiPress, 2011. ISBN: 978-19356-380-56.

Excursions in the History of Mathematics, by Israel Kleiner. Birkhäuser, 2012. ISBN-13: 978-08176-826-75.

Fascinating Mathematical People: Interviews and Memoirs, edited by Donald J. Albers and Gerald L. Alexander. Princeton University Press, October 2011. ISBN: 978-06911-482-98.

**Flatland*, by Edwin A. Abbott, with notes and commentary by William F. Lindgren and Thomas F. Banchoff. Cambridge University Press, November 2009. ISBN-13: 978-05217-599-46.

**Gösta Mittag-Leffler: A Man of Conviction*, by Arild Stubhaug (translated

by Tiina Nunnally). Springer, November 2010. ISBN: 978-36421-167-11.

Gottfried Wilhelm Leibniz: The Polymath Who Brought Us Calculus, by M. B. W. Tent. A K Peters/CRC Press, October 2011. ISBN: 978-14398-922-20.

The History and Development of Nomography, by H. A. Evesham. Docent Press, December 2010. ISBN-13: 978-14564-796-26.

I Want to Be a Mathematician: A Conversation with Paul Halmos. A film by George Csicsery. Mathematical Association of America, March 2009. ISBN-13: 978-08838-590-94. (Reviewed June/July 2011.)

In Pursuit of the Unknown: 17 Equations that Changed the World, by Ian Stewart. Basic Books, March 2012. ISBN-13: 978-04650-297-30.

In Service to Mathematics: The Life and Work of Mina Rees, by Amy Shell-Gellasch. Docent Press, December 2010. ISBN: 978-0-9837004-1-8.

The Information: A History, a Theory, a Flood, by James Gleick. Pantheon, March 2011. ISBN-13: 978-03754-237-27.

Knots Unravelled: From String to Mathematics, by Meike Akveld and Andrew Jobbings. Arbelos, October 2011. ISBN: 978-09555-477-20.

**Late Style: Yuri I. Manin Looking Back on a Life in Mathematics*. A DVD documentary by Agnes Handwerk and Harrie Willems. Springer, March 2012. ISBN NTSC: 978-3-642-24482-7; ISBN PAL: 978-3-642-24522-0.

Lost in a Cave: Applying Graph Theory to Cave Exploration, by Richard L. Breisch. National Speleological Society, January, 2012. ISBN: 978-1-879961-43-2.

The Lost Millennium: History's Time-tables Under Siege, by Florin Diacu. Johns Hopkins University Press (second edition), November 2011. ISBN-13: 978-14214-028-88.

Magical Mathematics: The Mathematical Ideas that Animate Great Magic Tricks, by Persi Diaconis and Ron Graham. Princeton University Press, November 2011. ISBN: 978-06911-516-49.

The Man of Numbers: Fibonacci's Arithmetic Revolution, by Keith Devlin. Walker and Company, July 2011. ISBN 978-08027-781-23. (Reviewed in this issue.)

**A Mathematical Nature Walk*, by John A. Adam. Princeton University Press, October 2011 (paperback edition). ISBN: 978-06911-526-53.

Mathematics and Reality, by Mary Leng. Oxford University Press, June 2010. ISBN-13: 978-01992-807-97.

Mathematics Education for a New Era: Video Games as a Medium for Learning, by Keith Devlin. A K Peters/CRC Press, February 2011. ISBN-13: 978-1-56881-431-5.

**Mathematics Emerging: A Sourcebook 1540–1900*, by Jacqueline Stedall. Oxford University Press, November 2008. ISBN-13: 978-01992-269-00. (Reviewed June/July 2011.)

The Mathematics of Life, by Ian Stewart. Basic Books, June 2011. ISBN-13: 978-04650-223-80. (Reviewed December 2011.)

Mathematics, Religion and Ethics: An Epistemological Study, by Salilesh Mukhopadhyay. Feasible Solution LLC, September 2010. ISBN: 978-1-4507-3558-2.

Mysteries of the Equilateral Triangle, by Brian J. McCartin. Hikari, August 2010. ISBN-13: 978-954-91999-5-6. Electronic copies available for free at <http://www.m-hikari.com/mccartin-2.pdf>.

Newton and the Counterfeiter: The Unknown Detective Career of the World's Greatest Scientist, by Thomas Levenson. Houghton Mifflin Harcourt, June 2009. ISBN-13: 978-01510-127-87.

NIST Handbook of Mathematical Functions, Cambridge University Press, Edited by Frank W. J. Olver, Daniel W. Lozier, Ronald F. Boisvert, and Charles W. Clark. Cambridge University Press, May 2010. ISBN-13: 978-05211-922-55 (hardback plus CD-ROM); ISBN-13: 978-05211-406-38 (paperback plus CD-ROM). (Reviewed September 2011.)

The Noether Theorems: Invariance and Conservation Laws in the Twentieth Century, by Yvette Kosmann-Schwarzbach. Springer, December 2010. ISBN-13: 978-03878-786-76.

Numbers: A Very Short Introduction, by Peter M. Higgins. Oxford University Press, February 2011. ISBN 978-0-19-958405-5. (Reviewed January 2012.)

One, Two, Three: Absolutely Elementary Mathematics [Hardcover] David Berlinski. Pantheon, May 2011. ISBN-13: 978-03754-233-38.

Origami Inspirations, by Meenakshi Mukerji. A K Peters, September 2010. ISBN-13: 978-1568815848.

The Perfect Swarm: The Science of Complexity in Everyday Life, by Len Fisher. Basic Books, March 2011 (paperback). ISBN-13: 978-04650-202-49.

The Philosophy of Mathematical Practice, Paolo Mancosu, Editor. Oxford University Press, December 2011. ISBN: 978-01996-401-02. (Reviewed March 2012.)

The Pleasures of Statistics: The Autobiography of Frederick Mosteller. Edited by Stephen E. Fienberg, David C. Hoaglin, and Judith M. Tanur. Springer, January 2010. ISBN-13: 978-03877-795-53.

**Pricing the Future: Finance, Physics, and the 300-year Journey to the Black-Scholes Equation*, by George G. Szpiro. Basic Books, November 2011. ISBN-13: 978-04650-224-89.

Proof and Other Dilemmas: Mathematics and Philosophy, edited by Bonnie Gold and Roger A. Simons. Mathematical Association of America, July 2008. ISBN-13: 978-08838-556-76. (Reviewed December 2011.)

The Proof is in the Pudding: A Look at the Changing Nature of Mathematical Proof, by Steven G. Krantz. Springer, May 2011. ISBN: 978-03874-890-87.

Riot at the Calc Exam and Other Mathematically Bent Stories, by Colin Adams. AMS, July 2009. ISBN-13: 978-08218-481-73.

Roads to Infinity: The Mathematics of Truth and Proof, by John C. Stillwell. A K Peters/CRC Press, July 2010. ISBN-13: 978-15688-146-67.

Scientific Reflections: Selected Multidisciplinary Works, by Richard Crandall. PSIPress, 2011. ISBN: 978-19356-380-87.

Six Gems of Geometry, by Thomas Reale. PSIPress, 2010. ISBN: 978-19356-380-25.

The Strangest Man, by Graham Farmelo. Basic Books, August 2009. ISBN-13: 978-04650-182-77. (Reviewed October 2011.)

Street-Fighting Mathematics: The Art of Educated Guessing and Opportunistic Problem Solving, by Sanjoy Mahajan. MIT Press, March 2010. ISBN-13: 978-0-262-51429-3. (Reviewed August 2011.)

Taking Sudoku Seriously: The Math Behind the World's Most Popular Pencil Puzzle, by Jason Rosenhouse and Laura Taalman. Oxford University Press, January 2012. ISBN: 978-01997-565-68.

The Theory That Would Not Die: How Bayes' Rule Cracked the Enigma Code, Hunted Down Russian Submarines, and Emerged Triumphant from Two Centuries of Controversy, by Sharon Bertsch McGrayne. Yale University Press, April 2011. ISBN-13: 978-03001-696-90. (Reviewed in this issue.)

Top Secret Rosies: The Female Computers of World War II. Video documentary, produced and directed by LeAnn Erickson. September 2010. Website: <http://www.topsecretrosies.com>. (Reviewed February 2012.)

Towards a Philosophy of Real Mathematics, by David Corfield. Oxford University Press, April 2003. ISBN-13: 0-521-81722-6. (Reviewed November 2011.)

Train Your Brain: A Year's Worth of Puzzles, by George Grätzer. A K Peters/CRC Press, April 2011. ISBN-13: 978-15688-171-01.

Viewpoints: Mathematical Perspective and Fractal Geometry in Art, by Marc Frantz and Annalisa Crannell. Princeton University Press, August 2011. ISBN-13: 978-06911-259-23.

Vilim Feller, istaknuti hrvatsko-americki matematičar/William Feller, Distinguished Croatian-American Mathematician, by Darko Zubrinic. Bilingual Croatian-English edition, Graphis, 2011. ISBN: 978-953-279-016-0.

Visual Thinking in Mathematics, by Marcus Giaquinto. Oxford University Press, July 2011. ISBN-13: 978-01995-755-34.

What's Luck Got to Do with It? The History, Mathematics and Psychology of the Gambler's Illusion, by Joseph Mazur. Princeton University Press, July 2010. ISBN: 978-0-691-13890-9. (Reviewed February 2012.)

Why Beliefs Matter: Reflections on the Nature of Science, by E. Brian Davies. Oxford University Press, June 2010. ISBN 978-01995-862-02. (Reviewed April 2012.)