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 features, memorials, 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 **production editor** is the person to whom to send items for "Mathematics People", "Mathematics Opportunities", "For Your Information", "Reference and Book List", and "Mathematics Calendar".

Permissions requests should be sent to: reprint-permission@ams.org.

Contact the **editor** at: notices@math.wustl.edu or by fax at 314-935-6839.

Contact the **production editor** at: notices@ams.org or by fax at 401-331-3842. Postal addresses for both may be found in the masthead.

Upcoming Deadlines

November 19, 2014*:* Applications for NRC-Ford Foundation Predoctoral Fellowships. See the website 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.

November 25–December 9, 2014: Proposals for NSF Program in Computational and Data-Enabled Science and Engineering in Mathematical and Statistical Sciences (CDS&E-MSS). See "Mathematics Opportunities" in this issue.

December 1, 2014: Applications for AMS Centennial Fellowship. See www.ams.org/ams-fellowships/ or contact the Membership and Programs Department, American Mathematical Society, 201 Charles Street, Providence, RI 02904-2294; telephone 401-455-4105; email prof-serv@ams.org.

December 1, 2014: Applications for Service, Teaching, and Research (STaR) Program. See "Mathematics Opportunities" in this issue.

December 1, 2014: Applications for Pacific Institute for the Mathematical Sciences (PIMS) postdoctoral fellowships. See www.pims.math.ca/scientific/postdoctoral or contact assistant.director@pims.math.ca.

December 1, 2014: Applications for Research Memberships and

Where to Find It

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

AMS Bylaws—*November 2013, p. 1358*

AMS Email Addresses—*February 2014, p. 199*

AMS Governance 2014—*June/July 2014, p. 650*

AMS Officers and Committee Members—*October 2012, p. 1290*

Contact Information for Mathematical Institutes—*August 2014, p. 786*

Conference Board of the Mathematical Sciences—*September 2014, p. 916*

IMU Executive Committee—*December 2014, p. 1370*

Information for *Notices* Authors—*June/July 2014, p. 646*

National Science Board—*January 2014, p. 82*

NRC Board on Mathematical Sciences and Their Applications—*March 2014, p. 305*

NSF Mathematical and Physical Sciences Advisory Committee—*February 2014, p. 202*

Program Officers for Federal Funding Agencies—*October 2013, p. 1188 (DoD, DoE); December 2014, p. 1369 (NSF Mathematics Education)*

Program Officers for NSF Division of Mathematical Sciences—*November 2014, p. 1264*

Postdoctoral Fellowships at the Mathematical Sciences Research Institute (MSRI). See https://www.msri.org/web/msri/scientific/memberapplication .

December 12, 2014: Applications for National Defense Science and Engineering Graduate (NDSEG) Fellowships. See "Mathematics Opportunities" in this issue.

December 14, 2014: Preliminary proposals for Intensive Research Programs at Centre de Recerca Matematica (CRM). See "Mathematics Opportunities" in this issue.

December 15, 2014: Applications for AMS Epsilon Fund grants. See www.ams.org/programs/edu-support/epsilon/emp-epsilon for more information and www.mathprograms.org for applications.

December 19, 2014: Proposals for 2016 AMS Short Courses. Submit by email to aed-mps@ams.org.

December 24, 2014: Registration for AMS Department Chairs Workshop. See https://bit.ly/1ph9nJl to register.

December 24, 2014: Registration for AMS-NSF-EHR free grant-writing workshop. See https://bit.ly/1uUq9hU.

January 11, 2015: Final proposals for Intensive Research Programs at Centre de Recerca Matematica (CRM). See "Mathematics Opportunities" in this issue.

January 12, 2015: Applications for Jefferson Science Fellows Program. For more information, email jsf@nas.edu; telephone 202-334-2643, or see the website sites.nationalacademies.org/PGA/Jefferson/PGA_046612.

January 15, 2015: Applications for AMS-AAAS Mass Media Summer Fellowships. See the website at www.aaas.org/program/aaas-mass-mediascience-engineering-fellows-program. Applicants may contact Dione Rossiter, Project Director, AAAS Mass Media Science & Engineering Fellows Program, 1200 New York Avenue, NW, Washington, DC 20005; telephone 202-326-6645; email drossite@aaas.org. Further information is also available at http://www.ams.org/programs/ams-fellowships/media-fellow/massmediafellow.

January 31, 2015: Entries for AWM Essay Contest. Contact Heather Lewis at hlewis5@naz.edu or see the website https://sites.google.com/site/awmmath/home.

February 1, 2015: Applications for AWM Travel Grants, Mathematics Education Research Travel Grants, Mathematics Mentoring Travel Grants, and Mathematics Education Research Mentoring Travel Grants. See the website https://sites.google.com/site/awmmath/programs/travel-grants ; telephone: 703-934-0163; or email: awm@awm-math.org; or contact Association for Women in Mathematics, 11240 Waples Mill Road, Suite 200, Fairfax, VA 22030.

February 12, 2015: Applications for IPAM Research in Industrial Projects for Students (RIPS) programs. See "Mathematics Opportunities" in this issue.

March 2, 2015: Applications for EDGE for Women 2015 Summer Program. See the website www.edgeforwomen.org/.

March 31, 2015: Applications for IPAM graduate summer school on Games and Contracts for Cyber-Physical Security. See "Mathematics Opportunities" in this issue.

April 15, 2015: Applications for fall 2015 semester of Math in Moscow. See www.mccme.ru/mathinmoscow , or contact: Math in Moscow, P.O. Box 524, Wynnewood, 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 www.ams.org/programs/travel-grants/mimoscow, or contact: Math in Moscow Program, Membership and Programs Department, American Mathematical Society, 201 Charles Street, Providence RI 02904-2294; email student-serv@ams.org.

May 1, 2015: Applications for AWM Travel Grants and Mathematics Education Research Travel Grants. See https://sites.google.com/site/awmmath/programs/travel-grants ; telephone: 703-934-0163; or email: awm@awm-math.org; or contact Association for Women in Mathematics, 11240 Waples Mill Road, Suite 200, Fairfax, VA 22030.

October 1, 2015: Applications for AWM Travel Grants and Mathematics Education Research Travel Grants. See https://sites.google.com/site/awmmath/programs/travel-grants ; telephone: 703-934-0163; or email: awm@awm-math.org; or contact Association for Women in Mathematics, 11240 Waples Mill Road, Suite 200, Fairfax, VA 22030.

NSF Mathematics Education Staff

The Directorate for Education and Human Resources (EHR) of the National Science Foundation (NSF) sponsors a range of programs that support educational projects in mathematics, science, and engineering. Listed below is contact information for those EHR program officers whose fields are in the mathematical sciences or mathematics education. These individuals can provide information about the programs they oversee, as well as information about other EHR programs of interest to mathematicians. The postal address is: Directorate for Education and Human Resources, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230. The EHR webpage is www.nsf.gov/dir/index.jsp?org=EHR.

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IMU Executive Committee

The Executive Committee of the International Mathematical Union (IMU) conducts the business of the Union. Following are the members of the Executive Committee for the term 2015–2018.

Shigefumi Mori, President
Helge Holden, Secretary
Alicia Dickenstein, Vice President
Vaughan Jones, Vice President
Benedict H. Gross, Member-at-Large
Hyungju Park, Member-at-Large
Christiane Rousseau, Member-at-Large
Vasudevan Srinivas, Member-at-Large
John Francis Toland, Member-at-Large
Wendelin Werner, Member-at-Large
Ingrid Daubechies, Ex-officio Member (Past President)

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.

Alan M. Turing: Centenary Edition, by Sara Turing. Cambridge University Press, April 2012. ISBN-13: 978-11070-205-80. (Reviewed September 2014.)

Alan Turing: The Enigma, The Centenary Edition, by Andrew Hodges. Princeton University Press, May 2012. ISBN-13: 978-06911-556-47. (Reviewed September 2014.)

Alan Turing: His Work and Impact, edited by S. Barry Cooper and J. van Leeuwen. Elsevier, May 2013. ISBN-13: 978-01238-698-07. (Reviewed September 2014.)

Alan Turing's Electronic Brain: The Struggle to Build the ACE, the World's Fastest Computer, by B. Jack Copeland et al. Oxford University Press, May 2012. ISBN-13: 978-0-19-960915-4. (Reviewed September 2014.)

André-Louis Cholesky: Mathematician, Topographer and Army Officer, by Claude Brezinski and Dominique Tournès. Birkhäuser, August 2014. ISBN: 978-33190-813-42.

Beyond Banneker: Black Mathematicians and the Paths to Excellence, by Erica N. Walker. State University of New York Press, June 2014. ISBN-13: 978-14384-521-59.

Computability: Turing, Gödel, Church, and Beyond, edited by B. Jack Copeland, Carl J. Posy, and Oron Shagrir. MIT Press, June 2013. ISBN-13: 978-02620-189-99.

**A Curious History of Mathematics: The Big Ideas from Early Number Concepts to Chaos Theory,* by Joel Levy. Andre Deutsch, February 2014. ISBN-13: 978-02330-038-56.

Doing Data Science: Straight Talk from the Frontline, by Rachel Schutt and Cathy O'Neil. O'Reilly Media, November 2013. ISBN: 978-1-449-35865-5. (Reviewed October 2014.)

Enlightening Symbols: A Short History of Mathematical Notation and Its Hidden Powers, by Joseph Mazur. Princeton University Press, March 2014. ISBN-13: 978-06911-546-33.

Four Lives: A Celebration of Raymond Smullyan, edited by Jason Rosenhouse. Dover Publications, February 2014. ISBN-13: 978-04864-906-70.

Fractals: A Very Short Introduction, by Kenneth Falconer. Oxford University Press, December 2013. ISBN-13: 978-01996-759-82.

Good Math: A Geek's Guide to the Beauty of Numbers, Logic, and Computation, by Mark C. Chu-Carroll. Pragmatic Bookshelf, July 2013. ISBN-13: 978-19377-853-38.

The Grapes of Math: How Life Reflects Numbers and Numbers Reflect Life, by Alex Bellos. Simon and Schuster, June 2014. ISBN: 978-14516-400-90.

Henri Poincaré: A Scientific Biography, by Jeremy Gray. Princeton University Press, November 2012. ISBN- 13: 978-06911-527-14. (Reviewed April 2014.)

A History in Sum: 150 Years of Mathematics at Harvard (1825–1975), by Steve Nadis and Shing-Tung Yau. Harvard University Press, October 2013. ISBN-13: 978-06747-250-03. (Reviewed June/July 2014.)

The Improbability Principle: Why Coincidences, Miracles, and Rare Events Happen Every Day, by David J. Hand. Scientific American/Farrar, Straus and Giroux, February 2014. ISBN-13: 978-03741-753-44. (Reviewed in this issue.)

Infinitesimal: How a Dangerous Mathematical Theory Shaped the Modern World, by Amir Alexander. Scientific American/Farrar, Straus and Giroux, April 2014. ISBN-13: 978-03741-768-15.

Jane Austen, Game Theorist, by Michael Suk-Young Chwe. Princeton University Press, April 2013. ISBN-13: 978-06911-557-60.

L. E. J. Brouwer—Topologist, Intuitionist, Philosopher: How Mathematics Is Rooted in Life, by Dirk van Dalen. Springer (2013 edition), December 2012. ISBN-13: 978-14471-461-55. (Reviewed June/July 2014.)

Levels of Infinity: Selected Writings on Mathematics and Philosophy, by Hermann Weyl (edited and with an introduction by Peter Pesic). Dover Publications, January 2013. ISBN: 978-04864-890-32.

The Logic of Infinity, by Barnaby Sheppard. Cambridge University Press, May 2014. ISBN-13: 978-11076-786-68.

Love and Math: The Heart of Hidden Reality, by Edward Frenkel. Basic Books, October 2013. ISBN-13: 978-04650-507-41. (Reviewed October 2014.)

Magnificent Mistakes in Mathematics, by Alfred S. Posamentier and Ingmar Lehmann. Prometheus Books, August 2013. ISBN-13: 978-16161-474-71.

Math Bytes: Google Bombs, Chocolate-Covered Pi, and Other Cool Bits in Computing, by Tim Chartier. Princeton University Press, April 2014. ISBN-13: 978-06911-606-03.

Mathematical Expeditions: Exploring Word Problems Across the Ages,

by Frank J. Swetz. Johns Hopkins University Press, June 2012. ISBN: 978-14214-043-87.

The Mathematician's Shiva, by Stuart Rojstaczer. Penguin Books, September 2014. ISBN-13: 978-014312-631-7.

**Mathematics and the Real World: The Remarkable Role of Evolution in the Making of Mathematics*, by Zvi Artstein. Prometheus Books, September 2014. ISBN-13: 978-16161-409-15.

Mathematics of the Transcendental, by Alain Badiou (translated by A. J. Bartlett and Alex Ling). Bloomsbury Academic, March 2014. ISBN-13: 978-14411-892-40.

Math in Minutes: 200 Key Concepts Explained in an Instant, by Paul Glendinning. Quercus, September 2013. ISBN-13: 978-16236-500-87.

Math in 100 Key Breakthroughs, by Richard Elwes. Quercus, December 2013. ISBN-13: 978-16236-505-44.

**A Mind For Numbers: How to Excel at Math and Science (Even If You Flunked Algebra),* by Barbara Oakley. Tarcher, July 2014. ISBN-13:*978-03991-652-45.*

Naming Infinity: A True Story of Religious Mysticism and Mathematical Creativity, by Loren Graham and Jean-Michel Kantor. Belknap Press of Harvard University Press, March 2009. ISBN-13: 978-06740-329-34. (Reviewed January 2014.)

The New York Times Book of Mathematics: More Than 100 Years of Writing by the Numbers, edited by Gina Kolata. Sterling, June 2013. ISBN-13: 978-14027-932-26. (Reviewed May 2014.)

Numbers Are Forever, by Liz Strachan. Constable, March 2014. ISBN-13: 978-14721-110-43.

Our Mathematical Universe: My Quest for the Ultimate Nature of Reality, by Max Tegmark. Knopf, January 2014. ISBN-13: 978-03075-998-03.

The Outer Limits of Reason: What Science, Mathematics, and Logic Cannot Tell Us, by Noson S. Yanofsky. MIT Press, August 2013. ISBN-13: 978-02620-193-54.

**Parables, Parabolas and Catastrophes: Conversations on Mathematics, Science and Philosophy,* by René Thom. Translated by Roy Lisker and edited by S. Peter Tsatsanis. Thombooks Press, November 2014 (distributed only by amazon.ca or amazon.com). ISBN-13:978-09939-269-07.

The Perfect Theory: A Century of Geniuses and the Battle over General Relativity, by Pedro G. Ferreira. Houghton Mifflin Harcourt, February 2014. ISBN-13: 978-05475-548-91.

Philosophy of Mathematics in the Twentieth Century, by Charles Parsons. Harvard University Press, March 2014. ISBN-13: 978-06747-280-66.

Probably Approximately Correct: Nature's Algorithms for Learning and Prospering in a Complex World, by Leslie Valiant. Basic Books, June 2013. ISBN-13: 978-04650-327-16. (Reviewed November 2014.)

Quantum Computing since Democritus, by Scott Aaronson. Cambridge University Press, March 2013. ISBN-13: 978-05211-995-68. (Reviewed November 2014.)

Ramanujan's Place in the World of Mathematics: Essays Providing a Comparative Study, by Krishnaswami Alladi. Springer, 2013. ISBN: 978-81322-076-65.

The Simpsons and Their Mathematical Secrets, by Simon Singh. Bloomsbury, October 2013. ISBN-13: 978-14088-353-02.

Struck by Genius: How a Brain Injury Made Me a Mathematical Marvel, by Jason Padgett and Maureen Ann Seaberg. Houghton Mifflin Harcourt, April 2014. ISBN-13: 978-05440-456-06.

Synthetic Philosophy of Contemporary Mathematics, by Fernando Zalamea. Urbanomic/Sequence Press, January 2013. ISBN: 978-09567-750-16.

A Tale of Two Fractals, by A. A. Kirillov. Birkhäuser, May 2013. ISBN-13: 978-08176-838-18.

Théorème vivant, by Cédric Villani (in French). Grasset et Fasquelle, August 2012. ISBN-13: 978-2246798828. (Reviewed February 2014.)

The Tower of Hanoi: Myths and Maths, by Andreas M. Hinz, Sandi Klavzar, Uros Milutinovic, and Ciril Petr. Birkhäuser, January 2013. ISBN: 978-303-48023-69.

Turing: Pioneer of the Information Age, by Jack Copeland. Oxford University Press, January 2013. ISBN-13: 978-01996-397-93. (Reviewed September 2014.)

Turing's Cathedral: The Origins of the Digital Universe, by George Dyson. Pantheon/Vintage, December 2012. ISBN-13: 978-14000-759-97. (Reviewed August 2014.)

Undiluted Hocus-Pocus: The Autobiography of Martin Gardner. Princeton University Press, September 2013. ISBN-13: 978-06911-599-11. (Reviewed March 2014.)

Why Is There Philosophy of Mathematics At All?, by Ian Hacking. Cambridge University Press, April 2014. ISBN-13: 978-11070-501-74. (Reviewed in this issue.)

Zombies and Calculus, by Colin Adams. Princeton University Press, September 2014. ISBN-13: 978-06911-619-07.