
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.tamu.edu` in the case of the editor and `notices@ams.org` in the case of the managing editor. The fax numbers are 979-845-6028 for the editor and 401-331-3842 for the managing editor. Postal addresses may be found in the masthead.

Information for *Notices* Authors

The *Notices* welcomes unsolicited articles for consideration for publication,

as well as proposals for such articles. The following provides general guidelines for writing *Notices* articles and preparing them for submission.

Notices readership. The *Notices* goes to about 30,000 subscribers worldwide, of whom about 20,000 are in North America. Approximately 8,000 of the 20,000 in North America are graduate students who have completed at least one year of graduate school. All readers may be assumed to be interested in mathematics research, but they are not all active researchers.

Notices feature articles. Feature articles may address mathematics,

mathematical news and developments, mathematics history, issues affecting the profession, mathematics education at any level, the AMS and its activities, and other such topics of interest to *Notices* readers. Each article is expected to have a large target audience of readers, perhaps 5,000 of the 30,000 subscribers. Authors must therefore write their articles for non-experts, rather than experts or would-be experts. In particular the mathematics articles in the *Notices* are expository. The language of the *Notices* is English.

Where To Find It

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

AMS Bylaws—November 1999, p. 1252

AMS e-Mail Addresses—November 2000, p. 1288

AMS Ethical Guidelines—June 1995, p. 694

AMS Officers 1999 and 2000 (Council, Executive Committee, Publications Committees, Board of Trustees)—May 2000, p. 591

AMS Officers and Committee Members—October 2000, p. 1127

Conference Board of the Mathematical Sciences—September 2000, p. 913

Information for *Notices* Authors—January 2001, p. 39

Mathematics Research Institutes Contact Information—August 2000, p. 786

National Science Board—January 2000, p. 71

New Journals for 1999—June/July 2000, p. 688

NRC Board on Mathematical Sciences and Staff—April 2000, p. 494

NRC Mathematical Sciences Education Board and Staff—April 2000, p. 494
NSF Mathematical and Physical Sciences Advisory Committee—March 2000, p. 381

Program Officers for Federal Funding Agencies (DoD, DoE, NSF)—October 2000, p. 1100; November 2000, p. 1291

Most feature articles, including those on mathematics, are expected to be of long-term value and should be written as such. Ideally each article puts its topic in a context, providing some history and other orientation for the reader and, as necessary, relating the subject matter to things that readers are likely to understand. In most cases, articles should progress to dealing with contemporary matters, not giving only historical material. The articles that are received the best by readers tend in part to relate different areas of mathematics to each other.

By design the *Notices* is partly magazine and partly journal, and authors' expository styles should take this into account. For example, many readers want to understand the mathematics articles without undue effort and without consulting other sources.

Mathematics feature articles in the *Notices* are normally six to nine pages, sometimes a little longer. Shorter articles are more likely to be read fully than are longer articles. The first page is 400 or 500 words, and subsequent pages are about 800 words. From this one should subtract an allowance for figures, photos, and other illustrations, and an appropriate allowance for any displayed equations and any bibliography.

Form of articles. Except with very short articles, authors are encouraged to use section headings and subsection headings to help orient readers. Normally there is no section heading at the beginning of an article. Despite the encouraged use of internal headings, the assigning of numbers to sections and subsections is not permitted in any article.

The bibliography should be kept short. In the case of mathematics articles, bibliographies are normally limited to about ten items and should consist primarily of entries like books in which one may do further reading. To help readers who might want lists of recent literature, an author might include a small number of recent publications with good bibliographies.

Editing process. Most articles that are destined to be accepted undergo an intensive editing process. The purposes of this process are to ensure that the target audience is as large as

practicable, that the content of the article is clear and unambiguous, and that the article is relatively easy to read. Usually it is the members of the editorial board who are involved in this process. Sometimes outside referees are consulted.

Preparation of articles for submission. The preferred form for submitted articles is as electronic files. Authors who cannot send articles electronically may send the articles by fax or by postal mail.

Articles with a significant number of mathematical symbols are best prepared in TeX. For TeX files, there is no special style file because the TeX gets converted to something else during the production process. AMS-TeX with the style file `amsppt.sty` works best with this production process, and plain TeX is a close second. LaTeX and AMS-LaTeX files are acceptable but require extra processing. In any case the use of nonstandard supplementary files and complex sequences of TeX definitions is discouraged. Authors are advised to keep lines of mathematical displays relatively short so that they will fit within *Notices* columns and not have to be adjusted in the production process. For the handling of figures and other illustrations, please consult the editor.

Articles without a significant number of mathematical symbols may be prepared as text files or in Microsoft Word. In the case of files prepared in Microsoft Word, it is advisable to send both the file and a fax of a printout.

Upcoming Deadlines

December 15, 2000: Submissions of manuscripts for consideration for the Ferran Sunyer i Balaguer Prize. See <http://www.crm.es/info/ffsb.htm>.

January 8, 2001: Applications for NRC-Ford Foundation Postdoctoral Fellowships for Minorities. See <http://www4.nationalacademies.org/>, or contact the Fellowship Programs Office/FP, TJ 2041, National Research Council, 2101 Constitution Avenue, NW, Washington, DC 20418; telephone 202-334-2860; e-mail: infofell@nas.edu.

January 8, 2001: Applications for NRC travel/host grants. See <http://www.nationalacademies.org/>

oia/, or telephone 202-334-2644; fax 202-334-2614; or e-mail: occe@nas.edu.

January 10, 2001: Applications for AAUW Selected Professions Fellowships. See <http://www.aauw.org/3000/fdnfelgra/selectprofbd.html>, or contact the AAUW Educational Foundation, Department 60, 2201 North Dodge Street, Iowa City, IA 52243-4030; telephone 319-337-1716, ext. 60.

January 15, 2001: Applications for AMS-AAAS Mass Media Fellowships. See "Mathematics Opportunities" in this issue.

January 15, 2001: Applications for the first competition for NRC Research Associateships. See <http://www4.nationalacademies.org/osep/rap/>, or contact the National Research Council, Associateship Programs (TJ 2114), 2101 Constitution Avenue, NW, Washington, DC 20418; telephone 202-334-2760; fax 202-334-2759; e-mail: rap@nas.edu.

January 16, 2001: Proposals for NSF institute competition. See <http://www.nsf.gov/cgi-bin/getpub?nsf0086/>, or contact Division of Mathematical Sciences, Room 1025, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230; telephone 703-306-1870.

January 22-24, 2001: Full proposals for small projects for NSF Information Technology Research Program. See <http://www.itr.nsf.gov/>.

January 23, 2001: Applications for AWM Workshop at the SIAM meeting in San Diego, California. See <http://www.awm-math.org/>; telephone 301-405-7892; e-mail: awm@math.umd.edu.

January 26, 2001: Full proposals for NSF IGERT program. See <http://www.nsf.gov/cgi-bin/getpub?nsf0078/>, or contact NSF 00-78 - IGERT Program, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230; telephone 703-306-1870.

February 1, 2001, May 1, October 1: Applications for NSF/AWM Travel Grants for Women. See <http://www.awm-math.org/travelgrants.html>; telephone 301-405-7892; e-mail: awm@math.umd.edu.

March 1, 2001: Applications for EDGE Summer Program. See "Mathematics Opportunities" in this issue.

April 9–11, 2001: Full proposals for group projects for NSF Information Technology Research Program. See <http://www.itr.nsf.gov/>.

April 15, 2001: Applications for the second competition for NRC Research Associateships. See <http://www4.nationalacademies.org/osep/rap/>, or contact the National Research Council, Associateship Programs (TJ 2114), 2101 Constitution Avenue, NW, Washington, DC 20418; telephone 202-334-2760; fax 202-334-2759; e-mail: rap@nas.edu.

April 23–25, 2001: Full proposals for large projects for NSF Information Technology Research Program. See <http://www.itr.nsf.gov/>.

August 15, 2001: Applications for the third competition for NRC Research Associateships. See <http://www4.nationalacademies.org/osep/rap/>, or contact the National Research Council, Associateship Programs (TJ 2114), 2101 Constitution Avenue, NW, Washington, DC 20418; telephone 202-334-2760; fax 202-334-2759; e-mail: rap@nas.edu.

October 1, 2001: Nominations for the Emanuel and Carol Parzen Prize. Submit nominations to J. H. Matis, Department of Statistics, Texas A&M University, College Station, TX 77873-3143.

Book List

The Book List highlights books that have mathematical themes and hold appeal for a wide audience, including mathematicians, students, and a significant portion of 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 the managing editor, e-mail: notices@ams.org.

The Advent of the Algorithm: The Idea That Rules the World, by David Berlinski. Harcourt, March 2000. ISBN 0-151-00338-6.

Angles of Reflection: Logic and a Mother's Love, by Joan L. Richards. W. H. Freeman, May 2000. ISBN 0-7167-3831-7.

The Bride of Science, by Benjamin Woolley. MacMillan, August 1999. ISBN 0-333-72436-4.

Chance Rules: An Informal Guide to Probability, Risk, and Statistics, by Brian S. Everitt. Springer, August 1999. ISBN 0-387-98768-1.

Complexity and Information, by J. F. Traub and Arthur G. Werschulz. Cambridge University Press, December 1998. ISBN 0-52148-005-1 (hardcover), 0-521-48506-1 (paperback).

* *The Crest of the Peacock: The Non-European Roots of Mathematics*, by George Gheverghese Joseph. Princeton University Press, October 2000 (new edition). ISBN 0-691-00659-8.

* *Divine Harmony: The Life and Teachings of Pythagoras*, by John Strohmeier and Peter Westbrook. Berkeley Hills Books, November 1999. ISBN 0-965-37745-8.

The Dots and Boxes Game, by Elwyn Berlekamp. A K Peters, July 2000. ISBN 1-568-81129-2.

* *Duelling Idiots and Other Probability Puzzlers*, by Paul J. Nahin. Princeton University Press, October 2000. ISBN 0-691-00979-1.

Education of a Mathematician, by Philip J. Davis. A K Peters, August 2000. ISBN 1-568-81116-0. (Reviewed in this issue.)

Einstein in Love: A Scientific Romance, by Dennis Overbye. Viking Press, October 2000. ISBN 0-670-89430-3.

Excursions into Mathematics: Millennium Edition, by Anatole Beck, Michael N. Cleicher, and Donald W. Crowe. A K Peters, 2000. ISBN 1-56881-115-2.

The Fermat Diary, by C. J. Mozzochi. AMS, 2000. ISBN 0-8218-2670-0.

Five More Golden Rules: Knots, Codes, Chaos and Other Great Theories of 20th Century Mathematics, by John L. Casti. John Wiley & Sons, February 2000. ISBN 0-471-32233-4.

The Game's Afoot! Game Theory in Myth and Paradox, by Alexander Mehlmann. AMS, 2000. ISBN 0-8218-2121-0.

Geometry from Africa: Mathematical and Educational Explorations, by Paulus Gerdes. Mathematical Associ-

ation of America, April 1999. ISBN 0-88385-715-4.

Gödel: A Life of Logic, by John L. Casti and Werner DePauli. Perseus, August 2000. ISBN 0-738-20274-6.

Gödel Meets Einstein: Time Travel in the Gödel Universe, by Pallo Yourgrau. Open Court, November 1999. ISBN 0-812-69408-2.

Hex Strategy: Making the Right Connections, by Cameron Browne. A K Peters, May 2000. ISBN 1-568-81117-9.

A History of Algorithms: From the Pebble to the Microchip, edited by Jean-Luc Chabert. Springer, September 1999. ISBN 3-540-63369-3.

Imaginary Numbers: An Anthology of Marvelous Mathematical Stories, Diversions, Poems, and Musings, edited by William Frucht. John Wiley & Sons, October 1999. ISBN 0-471-33244-5. (Reviewed August 2000.)

Infosense: Turning Data and Information into Knowledge, by Keith Devlin. W. H. Freeman, June 1999. ISBN 0-716-73484-2.

John von Neumann: The Scientific Genius Who Pioneered the Modern Computer, Game Theory, Nuclear Deterrence, and Much More, by Norman Macrae. AMS, October 1999. ISBN 0-8218-2064-8.

The Kingdom of Infinite Number: A Field Guide, by Bryan Bunch. W. H. Freeman, January 2000. ISBN 0-716-73388-9.

Mathematical Sorcery: Revealing the Secrets of Numbers, by Calvin C. Clawson. Plenum Press, May 1999. ISBN 0-306-46003-3.

The Math Gene: How Mathematical Thinking Evolved and Why Numbers Are Like Gossip, by Keith Devlin. Basic Books, August 2000. ISBN: 0465016189.

* *Mathematics As Sign: Writing, Imagining, Counting*, by Brian Rotman. Stanford University Press, September 2000. ISBN 0-804-73684-7.

Mathematics Success and Failure among African American Youth: The Roles of Sociohistorical Context, Community Forces, School Influence, and Individual Agency, by Danny B. Martin. Lawrence Erlbaum Associates, December 1999. ISBN 0-805-83042-1.

Mathematics Unlimited: 2001 and Beyond, edited by Björn Engquist and

Wilfried Schmid. Springer, September 2000. ISBN 3-540-66913-2.

My Numbers, My Friends: Popular Lectures on Number Theory, by Paulo Ribenboim. Springer, February 2000. ISBN 0-387-98911-0.

The Mystery of the Aleph: Mathematics, the Kabbalah, and the Human Mind, by Amir D. Aczel. Four Walls Eight Windows, November 2000. ISBN 1-568-58105-X.

* *Newton's Gift: How Sir Isaac Newton Unlocked the System of the World*, by David Berlinski. Free Press, October 2000. ISBN 0-684-84392-7.

Niels Hendrik Abel and His Times: Called Too Soon by Flames Afar, by Arild Stubhaug, translated by R. Daly. Springer, May 2000. ISBN 3-540-66834-9.

The Nothing That Is: A Natural History of Zero, by Robert Kaplan. Oxford University Press, October 1999. ISBN 0-195-12842-7.

Number: From Ahmes to Cantor, by Midhat Gazalé. Princeton University Press, March 2000. ISBN 0-691-00515-X.

Philosophy of Mathematics: An Introduction to a World of Proofs and Pictures, by James Robert Brown. Routledge, August 1999. ISBN 0-415-12274-0. (Reviewed November 2000.)

Proofs and Confirmations: The Story of the Alternating Sign Matrix Conjecture, by David M. Bressoud. MAA Spectrum Series, published jointly with Cambridge University Press, August 1999. ISBN 0-521-66646-5.

* *The Pursuit of Perfect Packing*, by Tomaso Aste and Denis Weaire. Institute of Physics Publishing, July 2000. ISBN 0-750-30648-3.

Riemann, Topology, and Physics, by Michael Monastyrsky; translated by Roger Cooke, James King, and Victoria King. Birkhäuser, second edition, May 1999. ISBN 3-764-33789-3.

Small Worlds: The Dynamics of Networks between Order and Randomness, by Duncan J. Watts. Princeton University Press, November 1999. ISBN 0-691-00541-9. (Reviewed September 2000.)

Squaring the Circle: The War between Hobbes and Wallis, by Douglas M. Jesseph. University of Chicago Press, December 1999. ISBN 0-226-39899-4 (hardcover), 0-226-39900-1 (paperback).

Statistics on the Table: The History of Statistical Concepts and Methods, by Stephen M. Stigler. Harvard University Press, November 1999. ISBN 0-674-83601-4.

Stephen Smale: The Mathematician Who Broke the Dimension Barrier, by Steve Batterson. AMS, February 2000. ISBN 0-8218-2045-1. (Reviewed December 2000.)

Surfing through Hyperspace: Understanding Higher Universes in Six Easy Lessons, by Clifford A. Pickover. Oxford University Press, September 1999. ISBN 0-195-13006-5.

The Symbolic Universe: Geometry and Physics 1890-1930, edited by Jeremy Gray. Oxford University Press, September 1999. ISBN 0-198-50088-2.

Two Millennia of Mathematics: From Archimedes to Gauss, by George M. Phillips. Springer, July 2000. ISBN 0-387-95022-2.

Uncle Petros and Goldbach's Conjecture, by Apostolos Doxiadis. Bloomsbury USA, February 2000. ISBN 1-582-34067-6. (Reviewed November 2000.)

* *The Universal Computer: The Road from Leibniz to Turing*, by Martin Davis. W. W. Norton & Company, October 2000. ISBN 0-393-04785-7.

The Universal History of Numbers: From Prehistory to the Invention of the Computer, by Georges Ifrah; translated by David Bellos, Sophie Wood, and Ian Monk. John Wiley & Sons, December 1999. ISBN 0-471-37568-3.

The Unknowable, by Gregory Chaitin. Springer, August 1999. ISBN 9-814-02172-5.

What Are the Odds? Chance in Everyday Life, by Michael Orkin. W. H. Freeman, December 1999. ISBN 0-716-73560-1.

The Wild Numbers, by Philibert Schogt. Four Walls Eight Windows, April 2000. ISBN 1-568-58166-1. (Reviewed November 2000.)

Women Becoming Mathematicians: Creating a Professional Identity in Post-World War II America, by Margaret A. M. Murray. MIT Press, September 2000. ISBN 0-262-13369-5.

Wonders of Numbers: Adventures in Math, Mind, and Meaning, by Clifford A. Pickover. Oxford University Press, September 2000. ISBN 0-195-13342-0.

Zero: The Biography of a Dangerous Idea, by Charles Seife. Viking Press, February 2000. ISBN 0-670-88457-X. (Reviewed October 2000.)

Cultural Events

Fermat's Last Tango, a musical performed by York Theatre Company. Theatre at St. Peter's, Citicorp Center, 619 Lexington Avenue, New York, NY 10022. For tickets call Telecharge, 212-239-6200. Runs November 21 to December 31, 2000.

Proof, a play performed by Manhattan Theatre Club. Walter Kerr Theatre, 219 West 48th Street, New York, NY. World Wide Web: <http://www.ProofonBroadway.com/>. Opens October 24, 2000. (Reviewed October 2000.)

* Added to the "Book List" since the list's last appearance.