

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 for experts or would-be experts. In particular, the mathematics articles in the *Notices* are expository. The language of the *Notices* is English.

Most feature articles, including those on mathematics, are expected to be of long-term value and should be written as such. Ideally each article should put its topic in a context, providing some history and other orien-

tation 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 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,

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 2000 and 2001 (Council, Executive Committee, Publications Committees, Board of Trustees)—May 2001, p. 520

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

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

Information for *Notices* Authors—June/July 2001, p. 611

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

National Science Board—February 2001, p. 216

New Journals for 2000—June/July 2001, p. 612

NRC Board on Mathematical Sciences and Staff—April 2001, p. 427

NRC Mathematical Sciences Education Board and Staff—May 2001, p. 517

NSF Mathematical and Physical Sciences Advisory Committee—March 2001, p. 328

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

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 $\text{T}_\text{E}\text{X}$, $\text{L}^\text{A}\text{T}_\text{E}\text{X}$, or $\mathcal{A}\mathcal{M}\mathcal{S}\text{-T}_\text{E}\text{X}$. There are no special style files for the *Notices* because $\text{T}_\text{E}\text{X}$ code gets converted to something else during the production process. Since the *Notices* is set in narrow columns, keeping displayed formulas relatively short helps to minimize adjustments during the production process; avoiding non-standard supplementary files and complex sequences of $\text{T}_\text{E}\text{X}$ definitions also helps. 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

June 30, 2001: Nominations for the 2002 National Medal of Science. See “Mathematics Opportunities” in this issue.

July 26, 2001: Proposals for Faculty Early Career Development (CAREER) Program, NSF. See “Mathematics Opportunities” in this issue.

July 30, 2001: VIGRE program, NSF. See “Mathematics Opportunities” in this issue.

August 1, 2001: Applications for Fulbright Scholar lecturing and research grants. See “Mathematics Opportunities” in this issue.

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.

September 1, 2001: Applications for AWM Workshops for Women Graduate Students and Postdocs. See <http://www.awm-math.org/>, or contact Workshop Selection Committee, Association for Women in Mathematics, 4114 Computer & Space Sciences Building, University of Maryland, College Park, MD 20742-2461; telephone 301-405-7892; e-mail: awm@math.umd.edu.

September 15, 2001: Nominations for Alfred P. Sloan Research Fellowships. See “Mathematics Opportunities” in this issue.

October 1, 2001: Nominations for the Louise Hay and Alice T. Schafer awards of the AWM. Call the AWM at 301-405-7892 or send e-mail to awm@math.umd.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.

October 1, 2001: 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.

October 17, 2001: Applications for NSF Postdoctoral Research Fellowships. See “Mathematics Opportunities” in this issue.

December 31, 2001: Submissions for undergraduate paper contest in *Cryptologia*. See “For Your Information” in this issue.

January 31, 2002: Applications for travel grants for ICM 2002. See “Mathematics Opportunities” in this issue.

New Journals for 2000

Below is a list of mathematical journals appearing for the first time in 2000, as compiled by *Mathematical Reviews*. This list, as well as the listings for new journals for other years, can be found on the Web at <http://www.ams.org/mathweb/mi-newjs.html>.

Journal of Inequalities in Pure and Applied Mathematics, 1443-5756, Victoria University.

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.

Angles of Reflection: Logic and a Mother's Love, by Joan L. Richards. W. H. Freeman, May 2000. ISBN 0-716-73831-7.

Battle of Wits: The Complete Story of Codebreaking in World War II, by Stephen Budiansky. Free Press, October 2000. ISBN 0-684-85932-7.

The Bit and the Pendulum: How the New Physics of Information Is Revolutionizing Science, by Tom Siegfried. John Wiley & Sons, February 2000. ISBN 0-47132-174-5.

The Brain: Unraveling the Mystery of How It Works (The Neural Network Process), by Thomas L. Saaty. RWS Publications, 2000. ISBN 1-888603-02-X.

* *Chaotic Elections! A Mathematician Looks at Voting*, by Donald G. Saari. AMS, April 2001. ISBN 0-8218-2847-9.

* *Computers Ltd.: What They Really Can't Do*, by David Harel. Oxford University Press, November 2000. ISBN 0-198-50555-8.

* *A Concise History of Mathematics*, by Dirk J. Struik. Dover Publications, 1987. ISBN 0-486-60255-9. (Reviewed in this issue.)

* *Creators of Mathematics: The Irish Connection*, by Ken Houston. University College Dublin Press, September 2000. ISBN 1-900-62149-5.

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.

Crypto: How the Code Rebels Beat the Government—Saving Privacy in the Digital Age, by Steven Levy. Viking Press, January 2001. ISBN 0-67085-950-8.

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 January 2001.)

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

* *Euclid's Window: The Story of Geometry from Parallel Lines to Hyperspace*, by Leonard Mlodinow. Free Press, April 2001. ISBN 0-684-86523-8.

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

Exploring Randomness, Gregory J. Chaitin. Springer, December 2000. ISBN 1-85233-417-7.

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

Finite vs. Infinite, Contributions to an Eternal Dilemma, Cristian S. Calude and Gheorghe Paun, editors. Springer, 2000. ISBN 1-85233-251-4.

* *The Fractal Murders*, by Mark Cohen. E-book published by Southern Cross Review, 2001. World Wide Web: www.southerncrossreview.org.

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

Geometry from Africa: Mathematical and Educational Explorations, by Paulus Gerdes. Mathematical Association 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 Palle 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.

* *How to Solve It: Modern Heuristics*, by Zbigniew Michalewicz and David B. Fogel. Springer, 2000. ISBN 3-540-66061-5.

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

The Math Gene: How Mathematical Thinking Evolved and Why Numbers Are Like Gossip, by Keith Devlin. Basic Books, August 2000. ISBN 0-465-01618-9. (Reviewed February 2001.)

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

Mathematics: Frontiers and Perspectives, V. Arnold, M. Atiyah, P. Lax, and B. Mazur, editors. AMS, December 1999. ISBN 0-8218-2697-2.

Mathematics Unlimited: 2001 and Beyond, Björn Engquist and Wilfried Schmid, editors. 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 Search for Infinity, 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.

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

The Parrot's Theorem, by Denis Guedj, Weidenfeld & Nicolson, June 2000. ISBN 0-297-64578-1. (To be published in the U.S. by St. Martin's Press, September 2001, ISBN 0-312-28055-6.) (Reviewed March 2001.)

Ptolemy's Geography, translated by J. Lennart Berggren and Alexander Jones. Princeton University Press, November 2000. ISBN 0-691-01042-0.

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

Radical Equations: Math Literacy and Civil Rights, by Robert P. Moses and Charles E. Cobb Jr. Beacon Press, February 2001. ISBN 0-807-03126-7.

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.

* *The Search for Mathematical Roots, 1870-1940: Logics, Set Theories, and the Foundations of Mathematics from Cantor through Russell to Gödel*, by I. Grattan-Guinness. Princeton University Press, February 2001. ISBN 0-691-0587-1.

* *The Story of Mathematics*, by Richard Mankiewicz. Princeton University Press, February 2001. ISBN 0-691-08808-X.

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.

The Universal Computer: The Road from Leibniz to Turing, by Martin Davis. W.W. Norton & Company, October 2000. ISBN 0-393-04785-7. (Reviewed May 2001.)

The Universal History of Computing: From the Abacus to the Quantum Computer, by Georges Ifrah; translated from the French and with notes by E. F. Harding, assisted by Sophie Wood, Ian Monk, Elizabeth Clegg, and Guido Waldman. John Wiley & Sons, November 2000. ISBN 0-471-39671-0.

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

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

* *What Is Mathematics? An Elementary Approach to Ideas and Methods*, by Richard Courant and Herbert Robbins; second edition, revised by Ian Stewart. Oxford University Press, August 1996. ISBN 0-195-10519-2.

Where Mathematics Comes From: How the Embodied Mind Brings Mathematics into Being, by George Lakoff and Rafael Nuñez. Basic Books, October 2000. ISBN 0-465-03770-4.

White Light, by Rudy Rucker. Four Walls Eight Windows, April 2001. ISBN 1-56858-198-X.

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.

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