
Reference

Upcoming Deadlines

October 1, 1998: Deadline for nominations for the Louise Hay Award. For details see "Mathematics Opportunities" in the September *Notices* or write to The Hay Award Selection Committee, Association for Women in Mathematics, 4114 Computer & Space Sciences Building, University of Maryland, College Park, MD, 20742-2461; call 301-405-7892; or send e-mail to awm@math.umd.edu.

October 1, 1998: Deadline for receipt of applications for the United States and Canada competition for the Guggenheim Memorial Foundation Fellowships. For details see "Mathematics Opportunities" in this issue.

October 15, 1998: Deadline for submission of grant proposals to the National Security Agency. For further information consult the NSA Web site at <http://www.nsa.gov:8080/programs/msp/grants.html>, call 301-688-0400, send e-mail to msp@math13.math.umbc.edu, or write to Director, Mathematical Sciences Program, Attn: R51A, National Security Agency, Ft. George R. Meade, MD 20755-6000.

October 16, 1998: Deadline for applications for the NSF Mathematical Sciences Postdoctoral Research Fel-

lowship Program. More information will be available at the NSF Web site: <http://www.nsf.gov/mps/dms/dmsdead/> or from the Infrastructure Program, Room 1025, Division of Mathematical Sciences, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230; telephone 703-306-1870; e-mail msprf@nsf.gov.

October 30, 1998: Deadline for registration for the BMS Annual Department Chairs' Colloquium. For details, see "For Your Information" in this issue.

December 1, 1998: Deadline for receipt of applications for the Latin American and Caribbean competition for the Guggenheim Memorial Fellowships. For details, see "Mathematics Opportunities" in this issue.

DoD Mathematics Staff

Five agencies of the Department of Defense fund research in the mathematical sciences. The names, addresses, and telephone numbers of the pertinent staff members are listed below.

Advanced Research Projects Agency

Applied and Computational Mathematics Program
ARPA

Defense Sciences Office
3701 North Fairfax Drive
Arlington, VA 22203-1714
<http://www.darpa.mil>

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Air Force Office of Scientific Research

Directorate of Mathematics and Geosciences
AFOSR/NM
110 Duncan Avenue
Suite B115
Bolling AFB, DC 20332-8080
Fax: 202-404-7496
<http://web.fie.com/htest/fed/afosr/org.htm>

Charles J. Holland, Director
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More detailed contact information for the Air Force Office of Scientific Research will be provided in a future issue of the *Notices*.

Army Research Office

Mathematical and Computer Sciences Division
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National Security Agency
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Ft. George G. Meade, MD 20755-6557

Charles F. Osgood, Director
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Office of Naval Research
Mathematical, Computer, and Information Sciences Division

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DoE Mathematics Program

The Department of Energy (DoE) funds research in the mathematical sciences in a number of areas, particularly applied mathematics and areas connected with the High Performance Computing and Communications (HPCC) initiative. The names of the directors of the relevant programs are given below.

Applied Mathematics
Frederick A. Howes
301-903-3166
howes@er.doe.gov

Computer Science and HPCC
Daniel Hitchcock
301-903-5800
hitchcock@er.doe.gov

These programs are managed by the Mathematical, Information, and Computational Sciences Division of DoE. The telephone number for the Division is 301-903-5800, and the fax number is 301-903-7774. The mailing address is the Mathematical, Information, and Computational Sciences Division, Department of Energy, ER-31, 19901 Germantown Road, Germantown, MD 20874. The URL for the Division's World Wide Web page is <http://www.er.doe.gov/production/octr/mics/index.html>.

NSF Division of Mathematical Sciences

Listed below are names, e-mail addresses, and telephone numbers for the program directors for the coming academic year in the Division of Mathematical Sciences of the National Science Foundation.

Algebra and Number Theory
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aboyle@nsf.gov

Daniel Madden
703-306-1870
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Lance Small
703-306-1884
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mschacher@nsf.gov

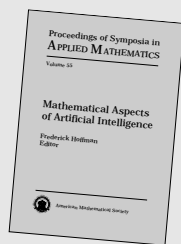
Analysis Program
Joe Jenkins
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Applied Mathematics
Hans Engler

Mathematical Aspects of Artificial Intelligence



Frederick Hoffman, Florida Atlantic University, Boca Raton, Editor

There exists a history of great expectations and large investments involving Artificial

Intelligence (AI). There are also notable shortfalls and memorable disappointments. One major controversy regarding AI is just how mathematical a field it is or should be.

This text includes contributions that examine the connections between AI and mathematics, demonstrating the potential for mathematical applications and exposing some of the more mathematical areas within AI. The goal is to stimulate interest in people who can contribute to the field or use its results. Included is work by M. Newborn on the famous Deep Blue chess match. G. Shafer offers his development of probability through probability trees with some of the results appearing here for the first time. M. Golumbic treats temporal reasoning with ties to the famous Frame Problem.

H. Kirchner explains how ordering techniques in automated reasoning systems make deduction more efficient. Constraint logic programming is discussed by C. Lassez, who shows its intimate ties to linear programming with crucial theorems going back to Fourier. V. Nalwa's work provides a brief tour of computer vision, tying it to mathematics—from combinatorics, probability and geometry to partial differential equations.

All authors are gifted expositors and are current contributors to the field. The wide scope of the volume includes research problems, research tools and good motivational material for teaching.

Proceedings of Symposia in Applied Mathematics, Volume 55; 1998; 275 pages; Hardcover; ISBN 0-8218-0611-4; List \$49; All AMS members \$39; Order code PSAPM/55NA



All prices subject to change. Charges for delivery are \$3.00 per order. For optional air delivery outside of the continental U. S., please include \$6.50 per item. *Prepayment required.* Order from: **American Mathematical Society**, P. O. Box 5904, Boston, MA 02206-5904, USA. For credit card orders, fax 1-401-455-4046 or call toll free 1-800-321-4AMS (4267) in the U. S. and Canada, 1-401-455-4000 worldwide. Or place your order through the AMS bookstore at www.ams.org/bookstore. Residents of Canada, please include 7% GST.

Reference

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The mailing address is: Division of Mathematical Sciences, National Science Foundation, Room 1025, 4201 Wilson Boulevard, Arlington, VA 22230. The address for the Division's World Wide Web server is <http://www.nsf.gov/mps/dms/>.

Where to Find It

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

AMS e-mail addresses
October 1997, p. 1118

AMS Ethical Guidelines
June 1995, p. 694

AMS officers and committee members
October 1998, p. 1209

Board on Mathematical Sciences and Staff
May 1998, p. 632

Bylaws of the American Mathematical Society
November 1997, p. 1339

Classification of degree-granting departments of mathematics
January 1997, p. 48

Mathematical Sciences Education Board and Staff
May 1998, p. 632

Mathematics Research Institutes contact information
May 1997, p. 598

National Science Board of NSF
November 1996, p. 1380

NSF Mathematical and Physical Sciences Advisory Committee
May 1997, p. 597

Officers of the Society 1997 and 1998 (Council, Executive Committee, Publications Committees, Board of Trustees)
May 1998, p. 625

Program officers for federal funding agencies (DoD, DoE, NSF)
October 1998, pp. 1181-1183