
Mathematics Opportunities

National Research Council Research Associateship Programs

The Policy and Global Affairs Division of the National Research Council (NRC) is sponsoring the 2002 Postdoctoral and Senior Research Associateship Programs. The programs are meant to provide opportunities for Ph.D., Sc.D., or M.D. scientists and engineers of unusual promise and ability to perform research at one of more than 120 research laboratories throughout the United States and overseas.

Full-time associateships will be awarded for research in the fields of mathematics, chemistry, earth and atmospheric sciences, engineering, applied sciences and computer science, life and medical sciences, space and planetary sciences, and physics. Most of the laboratories are open to both U.S. and non-U.S. nationals and to both recent doctoral recipients and senior investigators.

Awards are made for one or two years, renewable for a maximum of three years. Annual stipends for recent Ph.D. recipients range from \$30,000 to \$50,000, depending on the sponsoring laboratory; the awards for senior recipients will be higher. Support is also provided for allowable relocation expenses and for limited professional travel during the period of the award.

Awards will be made three times during the year, and applications will be accepted on a continuous basis. The deadlines for application materials to be postmarked are **January 15, April 15, and August 15, 2002**. The award recipients will be announced in March–April, July, and November.

For further information and application materials, see the NRC website at <http://www4.nationalacademies.org/pga/rap.nsf/>, 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.

—From an NRC announcement

National Defense Science and Engineering Graduate Fellowships

As a means of increasing the number of U.S. citizens trained in disciplines of military importance in science and engineering, the Department of Defense (DoD) plans to award approximately 200 new three-year graduate fellowships in April 2002, based on available funding. The DoD will offer these fellowships to individuals who have demonstrated ability and special aptitude for advanced training in science and engineering. National Defense Science and Engineering Graduate (NDSEG) Fellowships will be awarded for study and research leading to doctoral degrees in mathematical, physical, biological, ocean, and engineering sciences.

The NDSEG Fellowship Program is open only to applicants who are citizens or nationals of the United States. NDSEG Fellowships are intended for students at or near the beginning of their graduate studies in science or engineering. Applicants must receive or be on track to receive their bachelor's degrees by fall of 2002. Applications are

encouraged from women, persons with disabilities, and minorities, including members of ethnic minority groups such as African American, American Indian and Alaska Native, Asian, Native Hawaiian and other Pacific Islander, Hispanic, or Latino.

The deadline for submitting a complete application is **January 16, 2002**. Application materials are available from, and completed applications should be returned to, the American Society for Engineering Education (ASEE) at: NDSEG Fellowship Program, c/o American Society for Engineering Education, 1818 N Street, N.W. #600, Washington, DC 20036; telephone 202-331-3516; fax 202-265-8504; e-mail: ndseg@asee.org. For further information, see the website <http://www.asee.org/ndseg/html/preface.htm>.

—From an NDSEG announcement

NRC-Ford Foundation Fellowships for Minorities

The National Research Council (NRC) administers the Ford Foundation Fellowships for Minorities program. The program offers Predoctoral Fellowships, Dissertation Fellowships, and Postdoctoral Fellowships. To be eligible, applicants must belong to one of the following groups: Black/African American, Alaskan Native, Mexican American/Chicano/Chicana, Native American, Native Pacific Islander (including Filipino), or Puerto Rican.

The Predoctoral Fellowship offers support for three years in research-based programs in social and behavioral sciences, humanities, physical sciences, biological sciences, engineering, and mathematics, or for interdisciplinary programs comprised of two or more eligible disciplines leading to the Ph.D. or Sc.D. The annual stipend is \$16,000, and there is a cost of education allowance of \$7,500. The deadline to apply is **November 19, 2001**.

The Dissertation Fellowship is intended for the final year of dissertation writing. This year the Dissertation Fellowship will support individuals completing Ph.D.'s in education; please note that individuals pursuing Ed.D. degrees are not eligible for this award. The stipend is \$24,000 for one year. The deadline to apply is **December 3, 2001**.

The Postdoctoral Fellowship offers one year of postdoctoral support for individuals who have received their Ph.D.'s in the last seven years. The stipend is \$35,000 for one year, and there is a research and travel allowance of \$7,500. The deadline to apply is **January 7, 2002**.

Applicants are encouraged to apply online at <http://national-academies.org/fellowships/>. The postal address is Ford Foundation Fellowships/TJ2041, National Research Council, 2101 Constitution Avenue, NW, Washington, DC 20418. The telephone number is 202-334-2872. The e-mail address is infofell@nas.edu.

—From an NRC announcement

AMS-AAAS Mass Media Fellowships

The American Association for the Advancement of Science sponsors the Mass Media Science and Engineering Fellows Program, through which graduate students work during the summer in major media outlets. The AMS provides support each year for one or two graduate students in the mathematical sciences to participate in the program. In past years the AMS-sponsored fellows have held positions at *Business Week*, National Geographic Television, and *Time* magazine.

Fellows receive a weekly stipend plus travel expenses to work for ten weeks during the summer as reporters, researchers, and production assistants in media organizations. They observe and participate in the process by which events and ideas become news, improve their ability to communicate about complex technical subjects in a manner understandable to the public, and increase their understanding of editorial decision making and the manner in which information is effectively disseminated. Each fellow attends an orientation and evaluation session in Washington, DC, and begins the internship in mid-June. Fellows submit interim and final reports to AAAS. A wrap-up session is held at the end of the summer.

Mathematical sciences faculty are urged to make their graduate students aware of this program. The deadline to apply for fellowships for the summer of 2002 is **January 15, 2002**. The fellowship application is available online at <http://ehr.aaas.org/ehr/> (click the "Projects" link). For more information contact Katrina Malloy, Program Coordinator, AAAS Mass Media Science and Engineering Fellows Program, 1200 New York Avenue, NW, Washington, DC 20005; telephone 202-326-6760; fax 202-371-9849; or the AMS Washington Office, 1527 Eighteenth Street, NW, Washington, DC 20036; telephone 202-588-1100; fax 202-588-1853; e-mail: amsdc@ams.org.

—Elaine Kehoe

AMS Scholarships for "Math in Moscow"

The Independent University of Moscow has created a program called "Math in Moscow", which offers foreign students (undergraduate or graduate students specializing in mathematics and/or computer science) the chance to spend a semester in Moscow studying mathematics.

Math in Moscow provides students with a fifteen-week program similar to the Research Experiences for Undergraduates programs that are held each summer across the U.S. Math in Moscow draws on the Russian tradition of teaching mathematics, which emphasizes creative approaches to problem solving rather than memorizing theorems. The focus is on developing in-depth understanding of carefully selected material rather than broad surveys of large quantities of material. Discovering mathematics under

the guidance of an experienced teacher is the central principle of Math in Moscow. Most of the program's teachers are internationally recognized research mathematicians, and all of them have considerable teaching experience in English, typically in the U.S. or Canada. (All instruction is in English.)

Each semester five \$5,000 scholarships will be granted to U.S. students to attend the Math in Moscow program. Funding is provided by the National Science Foundation, and the scholarships are administered by the AMS. To be eligible for the scholarships, students must submit applications *both* to the Math in Moscow program and to the AMS. An applicant should be an undergraduate mathematics or computer science major enrolled at a U.S. institution.

May 15 is the deadline for applications to enroll in Math in Moscow for the following fall semester; **October 15** is the deadline for the spring semester. The same deadlines apply for the AMS scholarships.

Information and application forms for Math in Moscow are available on the Web at <http://www.mccme.ru/mathinmoscow/>, or by writing to: Math in Moscow, P.O. Box 524, Wynnewood, PA 19096; fax +7095-291-65-01; e-mail: mim@mccme.ru. Information and application forms for the AMS scholarship are available on the Web at <http://www.ams.org/careers-edu/mimoscow.html>, or by writing to: Math in Moscow Program, Professional Services Department, American Mathematical Society, 201 Charles Street, Providence, RI 02904; e-mail: prof-serv@ams.org.

—Allyn Jackson

Call for Nominations for Lobachevskii Medal

The Lobachevskii Medal is awarded every five years by Kazan University for distinguished achievements in geometry. The next award will be given in December 2002.

Universities and other scientific institutions may nominate mathematicians for outstanding scholarly works such as monographs, textbooks, or series of scientific papers. Further information and instructions for nomination may be found at the website <http://www.ksu.ru/lobmed/>. The deadline for nominations is **May 1, 2002**.

—From a Kazan University announcement

EDGE Summer Program

Funded by the National Science Foundation and the Andrew W. Mellon Foundation, the Enhancing Diversity in Graduate Education (EDGE) Program, a postbaccalaureate summer enrichment program, is designed to strengthen the ability of women and minority students to successfully complete graduate programs in the mathematical sciences.

The summer program consists of two core courses in analysis and algebra/linear algebra. There will also be

minicourses in vital areas of mathematical research in pure and applied mathematics, short-term visitors from academia and industry, guest lectures, graduate student mentors, and problem sessions. In addition, a follow-up mentoring program and support network will be established with the participants' respective graduate programs.

Applicants to the program should be women who are (i) graduating seniors who have applied to graduate programs in the mathematical sciences, (ii) recent recipients of undergraduate degrees who are now entering graduate programs, or (iii) first-year graduate students. All applicants should have completed standard junior-senior-level undergraduate courses in analysis and abstract algebra and have a desire to earn the doctorate degree. Women from minority groups who fit one of the above three categories are especially encouraged to apply. Final acceptance to the program is contingent upon acceptance to a graduate program in the mathematical sciences.

In 2002 the program will be held at Bryn Mawr College in Bryn Mawr, PA. The dates for the summer program are June 3–28, 2002. It will be codirected by Sylvia Bozeman (Spelman College) and Rhonda Hughes (Bryn Mawr College). A stipend of \$2,000 plus room and board will be awarded to participants. Names of applicants chosen to participate in the program will be announced by April 15, 2002.

Applications should consist of the following: (1) a completed application form; (2) a statement describing the expected value of this program to the applicant's academic goals; (3) two letters of recommendation from mathematical sciences faculty familiar with the applicant's work; (4) a transcript and current résumé; (5) a list of graduate programs to which the applicant has applied, together with a ranked list of her two or three top choices.

The application deadline is **March 1, 2002**. Applications should be sent to: EDGE Program, Department of Mathematics, Bryn Mawr College, Bryn Mawr, PA 19010.

For more information or to obtain applications, visit the program's Web site at <http://www.brynmawr.edu/Acads/Math/edge/edge.html>.

—Rhonda Hughes

News from The Fields Institute

The Fields Institute for Research in Mathematical Sciences has announced its program for 2001–2002, the Thematic Year on Numerical and Computational Challenges in Science and Engineering. The program will center on the development, analysis, and testing of new numerical methods in linear algebra, optimization, differential equations, and dynamical systems. The program features a series of workshops that focus on several key application areas, including climate modeling, computational biology, computational finance, and computer animation. The program will also explore the interaction between symbolic and numeric computation.

Activities during 2002 include graduate courses on Numerical Solution of PDEs, given by Robert Almgren, and

Numerical Solution of Optimization Problems, given by Henry Wolkowicz. In addition, the following events are scheduled.

February 4–22, 2002. Lecture Series on Numerical and Computational Challenges in Environmental Modeling. Lecturer: Zahari Zlatev.

February 25–March 1, 2002. Week on Computational Challenges in Mathematical Finance. The week begins with a two-day course on PDE methods for path-dependent options, followed by a three-day workshop on computational methods and applications in finance. Organizers: Tom Coleman, Peter Forsyth, Ken Vetzal.

March 4–15, 2002. Coxeter Lecture Series: Solving Wave Propagation Problems in Heterogeneous Media. Lecturer: Randy LeVeque.

May 2002. Optimization Visitors to The Fields Institute. There will be a group of visitors in optimization at The Fields Institute before, during, and after the Seventh SIAM Conference on Optimization. Organizer: Henry Wolkowicz.

May 13–16, 2002. Workshop on Numerical Challenges in Computer Animation. Organizer: Demetri Terzopolous.

May 27–June 1, 2002. Informal Working Group on Validated Optimization. Organizers: George Corliss, Ken Jackson, Baker Kearfott, Vladik Kreinovich, Weldon Lodwick.

July 13–19, 2002. Symbolic Computational Algebra 2002. Fields Institute special meeting on Symbolic and Numeric Computation in Geometry, Algebra and Analysis. Organizers: Robert Corless, Edward Green, Serkan Hosten, Reinhard Laubenbacher, Victoria Powers, Greg Reid.

July 29–August 2, 2002 (tentative). Short Course on Numerical Solution of Advection-Diffusion-Reaction Equations. Instructor: Jan Verwer.

August 6–9, 2002 (tentative). IMACS International Conference on Adaptive Methods for PDEs.

August 12–15, 2002 (tentative). The 2002 Workshop on the Solution of Partial Differential Equations on the Sphere.

Further information on the activities of the thematic year can be found at <http://www.fields.utoronto.ca/programs/scientific/01-02/numerical/>.

—From a Fields Institute announcement

News from MSRI

The Mathematical Sciences Research Institute (MSRI) in Berkeley, California, is pleased to announce a new program entitled *Summer Research at MSRI*, to begin in the summer of 2002. This year MSRI will host individuals or small groups (up to 12) to come and work at MSRI for a minimum of two weeks between June 3, 2002, and July 31, 2002. Besides office space, computer facilities, and access to the library, MSRI will make available this summer a small amount of travel funds. Preference for these funds will be given to those who are not otherwise supported. To be considered for the Summer Research program, please send a one-page description of the research project, a list of participants, and dates that you wish to spend at MSRI. If MSRI funding is desired, please indicate what level of travel support is necessary and describe your present and pending support. Please send this

information to the MSRI Deputy Director, Michael F. Singer, either electronically to singer@msri.org, or by mail to: Michael F. Singer, Mathematical Sciences Research Institute, 1000 Centennial Drive, Berkeley, CA 94720-5080.

For more information about MSRI events and lectures on streaming video, see <http://www.msri.org/>. To stay abreast of events at MSRI, subscribe to the bimonthly electronic newsletter *OUTLOOK*. Go to <http://www.msri.org/local/computing/majordomo/> and add your name to the *OUTLOOK* mailing list.

—MSRI announcement

Josiah Willard Gibbs Instructorships/Assistant Fellowships

Editor's Note: *The following information arrived too late to be included in the "Stipends for Study and Travel" section of the October 2001 Notices. For instructions on submitting information for "Stipends for Study and Travel," which appears annually in the October issue, please write to the Notices managing editor, notices@ams.org.*

The Department of Mathematics, Yale University, offers the Gibbs instructorships and assistant professorships to men and women with the doctorate who show definite promise in research in pure mathematics. Appointments are for two or three years. The teaching load (three one-semester courses) is kept light to allow ample time for research. Part of the teaching duties over the term of the appointment may consist of a one-semester course at the graduate level in the general area of the instructor's research. American citizens and U.S. residents will automatically be considered for special Gibbs Instructorships that are supported by a National Science Foundation (NSF) VIGRE grant. These appointments are for three years and also carry a reduced teaching load. The 2002-2003 salary will be at least \$49,800.

The application deadline is **January 1, 2002**. Applications are available at the website <http://www.math.yale.edu>. Inquiries may be sent to Gibbs Committee, Department of Mathematics, Yale University, Box 208283, New Haven CT 06520-8283; or by e-mail to gibbs.committee@math.yale.edu.

Yale University is an Affirmative Action/Equal Opportunity Employer. Applications from women and members of minority groups are welcome.

—Department of Mathematics, Yale University