
Mathematics Opportunities

Proposal Due Dates at the DMS

The Division of Mathematical Sciences (DMS) of the National Science Foundation (NSF) has a number of programs in support of mathematical sciences research and education. Listed below are some of the programs and their proposal due dates for the year 2010. Please refer to the program announcement or contact the program director for more information.

December 15, 2009 (full proposal): Computational Mathematics

January 13, 2010 (full proposal): Mathematical Biology

January 28, 2010 (full proposal): Scientific Computing Research Environments for the Mathematical Sciences (SCREMS)

February 11, 2010 (full proposal): Interdisciplinary Training for Undergraduates in Biological and Mathematical Sciences (UBM)

February 20, 2010 (full proposal): Interdisciplinary Grants in the Mathematical Sciences (IGMS)

June 2, 2010 (full proposal): University-Industry Cooperative Research Programs in the Mathematical Sciences

June 4, 2010 (full proposal): Research Experiences for Undergraduates (REU)

June 15, 2010 (full proposal): Workforce Program in the Mathematical Sciences

July 22, 2010 (full proposal): Faculty Early Career Development (CAREER) Program

August 20, 2010 (letter of intent): Focused Research Groups (FRG) in the Mathematical Sciences

August 26, 2010 (full proposal): Conferences, Workshops, and Special Meetings in the Mathematical Sciences

September 17, 2010 (full proposal): Focused Research Groups (FRG) in the Mathematical Sciences

October 5, 2010 (full proposal): Algebra, Number Theory and Combinatorics; Analysis; Foundations

For further information see the website http://www.nsf.gov/funding/pgm_list.jsp?org=DMS&ord=date.

The mailing address is Division of Mathematical Sciences, National Science Foundation, Room 1025, 4201 Wilson Boulevard, Arlington, VA 22230. The telephone number is 703-292-5111.

—From the DMS website

NDSEG 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) awards National Defense Science and Engineering Graduate (NDSEG) Fellowships each year to individuals who have demonstrated ability and special aptitude for advanced training in science and engineering. The fellowships are awarded for a period of three years for study and research leading to doctoral degrees in mathematical, physical, biological, ocean, and engineering sciences. Approximately two hundred fellowships will be awarded in 2010.

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 have received or be on track to receive their bachelor's degrees by fall of 2010. Fellows selected in spring 2010 must begin their fellowship tenure in fall 2010. Fellowships are tenable only at U.S. institutions of higher education offering doctoral degrees in the scientific and engineering disciplines specified. Fellows will receive full tuition and stipends for 12-month tenures: US\$30,500 for the first year, US\$31,000 for the second year, and US\$31,500 for the third year. 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.

Complete applications must be submitted electronically by **January 4, 2010**. Application forms are available online

at http://ndseg.asee.org/apply_online. For further information, see <http://ndseg.asee.org/>.

—From an NDSEG announcement

National Academies Research Associateship Programs

The Policy and Global Affairs Division of the National Academies is sponsoring the 2010 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 more than one hundred 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, life sciences, space 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. Amounts of stipends depend on the sponsoring laboratory. Support is also provided for allowable relocation expenses and for limited professional travel during the period of the award.

Awards will be made four times during the year: in February, May, August, and November. The deadline for application materials to be postmarked or for electronic submissions for the February 2010 review is **February 1, 2010**. Materials for the May review are due **May 1, 2010**; for the August review, **August 1, 2010**; and for the November review, **November 1, 2010**.

For further information and application materials, see the National Academies website at http://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.

—From an NRC announcement

AMS-AAAS Mass Media Summer Fellowship

The American Association for the Advancement of Science (AAAS) sponsors the Mass Media Science and Engineering Summer Fellows Program, through which graduate students work during the summer in major media outlets. The AMS provides support each year for a graduate student in the mathematical sciences to participate in the program. In past years the AMS-sponsored fellows have held positions at *Scientific American*, *Business Week*, *Voice of America*, *Discovery Channel Online*, *National Geographic Television*, *Popular Science*, *The Chicago Tribune*, and *Time* magazine.

Fellows receive a weekly stipend of US\$450 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 of how 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 2010 is **January 15, 2010**. Further information about the fellowship program and application procedures is available online at <http://www.aaas.org/programs/education/MassMedia/index.shtml>, or applicants may contact Stacey Pasco, Manager, Mass Media Program, AAAS Mass Media Science and Engineering Fellows Program, 1200 New York Avenue, NW, Washington, DC 20005; telephone 202-326-6441; fax 202-371-9849; email: spasco@aaas.org. Further information is also available at <http://www.ams.org/government/massmediaaann.html> and through the AMS Washington Office, 1527 Eighteenth Street, NW, Washington, DC 20036; telephone 202-588-1100; fax 202-588-1853; email: amsdc@ams.org.

—AMS Washington Office

AWM Essay Contest

To increase awareness of women's ongoing contributions to the mathematical sciences, the Association for Women in Mathematics (AWM) is holding an essay contest for biographies of contemporary women mathematicians and statisticians in academic, industrial, and government careers.

The essays will be based primarily on interviews with women who are currently working in mathematical sciences careers. The contest is open to students in the following categories: 6th–8th grades, 9th–12th grades, and college undergraduates. At least one winning submission will be chosen from each category. Winners will receive a prize, and their essays will be published online at the AWM website. A grand prize winner will have his or her submission published in the *AWM Newsletter* as well. The deadline for entries is **February 27, 2010**.

In addition to student entries, organizers are currently seeking women mathematicians to volunteer as the subjects of these essays. For more information, see <http://www.awm-math.org/biographies/contest.html>.

—From an AWM announcement

Departments Again Coordinate Job Offer Deadlines

A group of mathematical sciences departments has adopted an agreement to coordinate deadlines for acceptance of postdoctoral job offers for jobs that begin in the fall of 2010. The purpose is to ensure that applicants do not have to make decisions about job offers before the results of the National Science Foundation (NSF) postdoctoral fellowship competition are announced. The agreement applies only to offers of postdoctoral positions and not tenure-track positions, and only to applicants who are two years or less past the Ph.D. The departments have agreed not to require these applicants to decide about a job offer before Friday, February 5, 2010. The NSF has already agreed that it will complete its review of applications by January 26, 2010, at the latest. The list of participating departments, together with additional information, may be found on the Web at <http://www.ams.org/employment/postdoc-offers.html>.

—AMS Career Services announcement

News from the Fields Institute

The 2010 winter/spring thematic program at the Fields Institute will be Quantitative Finance: Foundations and Applications. Four workshops will be held:

Workshop on Foundations of Mathematical Finance, January 11–15, 2010

Workshop on Computational Methods in Finance, March 22–24, 2010

Workshop on Financial Econometrics, April 23–24, 2010

Workshop on Financial Derivatives and Risk Management, May 24–28, 2010

The Distinguished Lecture Series will be held April 21–23, 2010. Darrell Duffie (Stanford University) will deliver the lecture series.

The Coxeter Lectures will be delivered by Nicole El Karoui (École Polytechnique, Paris) at a date to be announced.

There will also be (at least) five Industrial-Academic Forums on dates to be announced: Financial Engineering and Insurance Mathematics, Emissions Trading and Other Market-Based Solutions to Environmental Problems, Structured Products, Systemic Stability and Liquidity, and Hedge Funds. See <http://www.fields.utoronto.ca/programs/scientific/09-10/finance> for up-to-date information on this thematic program.

Future thematic programs include Mathematics of Drug Resistance in Infectious Diseases (summer 2010); Asymptotic Geometric Analysis (fall 2010); Dynamics and Transport in Disordered Systems (winter/spring 2011); Discrete Geometry and Applications (fall 2011); and Galois Representations (winter/spring 2012).

Other future activities at the Institute include: Nathan and Beatrice Keyfitz Lectures in Mathematics and the Social Sciences, Robert C. Merton (Harvard Business

School), April 16, 2010; the 14th International Congress on Insurance: Mathematics and Economics, University of Toronto, June 17–19, 2010; the Sixth World Congress of the Bachelier Society, Toronto Hilton Hotel, June 22–26, 2010; a Workshop on Fluid Motion Driven by Immersed Structures, August 9–13, 2010; and the Conference on Asymptotic Geometric Analysis and Convexity, September 13–17, 2010.

Please see <http://www.fields.utoronto.ca/programs/scientific/> for information on all activities at the Institute.

—Fields Institute announcement

PIMS IGTC Fellowship for 2010–2011

The PIMS International Graduate Training Centre in Mathematical Biology invites applicants for the IGTC fellowship for the 2010–2011 academic year. Fellowships are worth up to C\$20,000 a year and are for students working in mathematical biology at the Pacific Institute for Mathematical Sciences (PIMS) universities (Alberta, British Columbia, Calgary, Regina, Saskatchewan, Simon Fraser and Victoria).

If you have excellent students, either potential students applying now or current students, please encourage them to apply. There are also opportunities for students to enroll in the programme. All students can benefit from IGTC graduate training elements including annual research summits, summer courses, new term-time courses, seminars, graduate student exchanges, and international visitors.

Full details of the IGTC Programme and application process can be found at: <http://www.pims.math.ca/scientific/igtc/mathematical-biology>. If you have further questions, please contact the IGTC coordinator, Maryna Yaskina (igtcmathbio@math.ualberta.ca) or Programme Director Mark Lewis (mlewis@math.ualberta.ca).

Application deadline is **February 5, 2010**.

—PIMS announcement