
Mathematics Opportunities

American Mathematical Society Centennial Fellowships

Invitation for Applications for Awards for 2008–2009

Deadline December 1, 2007

Description: The AMS Centennial Research Fellowship Program makes awards annually to outstanding mathematicians to help further their careers in research. The number of fellowships to be awarded is small and depends on the amount of money contributed to the program. The Society supplements contributions as needed. One Fellowship will be awarded for the 2008–2009 academic year. A list of previous fellowship winners can be found at: <http://www.ams.org/prizes-awards>.

Eligibility: The eligibility rules are as follows. The primary selection criterion for the Centennial Fellowship is the excellence of the candidate's research. Preference will be given to candidates who have not had extensive fellowship support in the past. Recipients may not hold the Centennial Fellowship concurrently with another research fellowship, such as a Sloan or National Science Foundation Postdoctoral Fellowship. Under normal circumstances, the fellowship cannot be deferred. A recipient of the fellowship shall have held his or her doctoral degree for at least three years and not more than twelve years at the inception of the award (that is, received between September 1, 1996, and September 1, 2005). Applications will be accepted from those currently holding a tenured, tenure-track, postdoctoral, or comparable (at the discretion of the selection committee) position at an institution in North America. Applications should include a cogent plan indicating how the fellowship will be used. The plan should include travel to at least one other institution and should demonstrate that the fellowship will be used for more than reductions of teaching at the candidate's home institution. The selection committee will consider the plan in addition to the quality of the candidate's research and

will try to award the fellowship to those for whom the award would make a real difference in the development of their research careers. Work in all areas of mathematics, including interdisciplinary work, is eligible.

Grant amount: The stipend for fellowships awarded for 2008–2009 is expected to be US\$70,000, with an additional expense allowance of about US\$7,000. Acceptance of the fellowship cannot be postponed.

Deadline: The deadline for receipt of applications is **December 1, 2007**. Awards will be announced in February 2008 or earlier, if possible.

Application information: Application forms are available via the Internet at <http://www.ams.org/employment/centflyer.html>. For paper copies of the form, write to the Membership and Programs Department, American Mathematical Society, 201 Charles Street, Providence, RI 02904-2294; or send email to prof-serv@ams.org; or call 401-455-4107.

—AMS announcement

NSF Graduate Research Fellowships

The National Science Foundation (NSF) awards Graduate Research Fellowships to graduating seniors and first-year graduate students. These are three-year fellowships awarded to U.S. students for full-time graduate study at the institutions of their choice. The fellowships include a stipend, tuition coverage, and possible international travel allowances. Awards are made based on the candidates' intellectual merit and potential for research achievement. The deadline for full proposals in mathematical sciences is **November 2, 2007**. For more information see http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf07576.

—From an NSF announcement

Research Opportunities for U.S. Graduate Students in Asia and Australia

The National Science Foundation (NSF) and the National Institutes of Health (NIH) are cosponsoring a summer research program in Australia, China, Japan, Korea, Taiwan, New Zealand, and Singapore for U.S. graduate students during the summer of 2008. The East Asia and Pacific Summer Institutes (EAPSI) provide U.S. graduate students in science and engineering with firsthand research experience in Australia, China, Japan, Korea, Taiwan, New Zealand, or Singapore; an introduction to the science and science policy infrastructure of the respective location; and orientation to the culture and language. The primary goals of EAPSI are to introduce students to East Asian and Pacific science and engineering in the context of a research laboratory and to initiate personal relationships that will better enable them to collaborate with foreign counterparts in the future. The institutes last approximately eight weeks, from June to August, and are administered in the United States by the NSF. The National Institutes of Health (NIH) cosponsor the summer institute in Japan.

Applicants must be U.S. citizens or permanent residents. They must be enrolled at U.S. institutions in science or engineering Ph.D. programs, in M.D. programs with an interest in biomedical research, or in master's degree programs with at least one full academic year completed by the end of the calendar year of application. They must be pursuing studies in fields of science or engineering that are supported by the NSF or the NIH (for Japan) and that also are represented among the potential host institutions. International travel will be provided, and each awardee will receive an allowance of US\$4,000.

The deadline for application materials to be postmarked is **December 11, 2007**. Proposers are required to prepare and submit all proposals for this announcement/solicitation through the FastLane system. Detailed instructions for proposal preparation and submission via FastLane are available at: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5284.

—From an NSF announcement

AMS Congressional Fellowship

The AMS, in conjunction with the American Association for the Advancement of Science (AAAS), will sponsor a Congressional Fellow from September 2008 through August 2009. The fellow will spend the year working on the staff of a member of Congress or a congressional committee as a special legislative assistant in legislative and policy areas requiring scientific and technical input. The fellowship is designed to provide a unique public policy learning experience, to demonstrate the value of science-government interaction, and to bring a technical background and external perspective to the decision-making process in Congress. The deadline for applications is

January 31, 2008. Applicants should have a Ph.D. or an equivalent doctoral-level degree in the mathematical sciences by the application deadline. For further information, please consult the webpage <http://www.ams.org/government/congressfellowann.html> or contact the AMS Washington office at 202-588-1100, email: amsdc@ams.org.

—AMS Washington office

Jefferson Science Fellows Program

The Jefferson Science Fellows (JSF) program at the U.S. Department of State is intended to involve the American academic science, technology, and engineering communities in the formulation and implementation of U.S. foreign policy.

Each fellow will spend one year at the U.S. Department of State for an on-site assignment in Washington, DC, that may also involve extended stays at U.S. foreign embassies and/or missions. Each fellow will receive a stipend of US\$50,000. Following the fellowship year, the Jefferson Science Fellow will return to his or her academic career but will remain available to the U.S. Department of State for short-term projects over the following five years.

The JSF program is administered by the National Academies and is supported through a partnership among the MacArthur Foundation; the Carnegie Corporation; the U.S. science, technology, and academic communities; professional scientific societies; and the U.S. Department of State. The deadline for applications is **January 15, 2008**. For further information, email: jsf@nas.edu, telephone 202-334-2643, or see the website <http://www7.nationalacademies.org/jefferson/>.

—From a National Academies announcement

NSF Program ADVANCE

The National Science Foundation (NSF) has instituted the ADVANCE Program in an effort to increase the representation and advancement of women in academic science and engineering careers.

In 2008 this program will support three types of projects. Partnerships for Adaptation, Implementation, and Dissemination (PAID) awards support analysis, adaptation, dissemination, and use of existing innovative materials and practices that have been demonstrated to be effective in increasing representation and participation of women in academic science and engineering careers. This category of award also supports proposals for developing national and/or discipline-specific leadership enabling the full participation and advancement of women in academic science and engineering careers. The deadline for proposals for these awards is **January 17, 2008**.

Institutional Transformation (IT) awards support academic institutional transformation to promote the

increased participation and advancement of women scientists and engineers in academe. These awards support innovative and comprehensive programs for institution-wide change. The proposal deadline for these awards is **December 6, 2007**.

Institutional Transformation Planning Grants (IT-Start) support basic data collection and analysis functions necessary to understand the status of women faculty in academic science and engineering at institutions seeking institutional transformation. This category of award is intended to broaden the spectrum of institutions participating in ADVANCE activities. IT-Start awards seek to include institutions with varying institutional scope, sizes, experiences, and perspectives such as (but not limited to) primarily undergraduate institutions, teaching-intensive colleges, community colleges, minority-serving institutions (e.g., tribal colleges, historically black colleges and universities, and Hispanic-serving institutions), as well as women's colleges. The proposal deadline for these awards is **December 6, 2007**.

Proposals are sought from both men and women for creative strategies to realize the goals of the ADVANCE Program. Members of underrepresented minority groups and individuals with disabilities are especially encouraged to apply. Proposals that address the participation and advancement of women from underrepresented minority groups are encouraged. For more information see <http://www.nsf.gov/pubs/2007/nsf07582/nsf07582.txt>.

—From an NSF announcement

AAUW Educational Foundation Fellowships and Grants

The American Association of University Women (AAUW) awards Selected Professions Fellowships to women who intend to pursue a full-time course of study at accredited institutions during the fellowship year in a designated degree program in which women's participation has traditionally been low. All women who are candidates for the master of science (M.S.) degree in mathematics or statistics are eligible to apply. Candidates are eligible to apply for support for the final year of study only and are expected to receive their degrees at the end of the fellowship year. Special consideration is given to applicants who show professional promise in innovative or neglected areas of research or practice in areas of public interest.

Applications are now available for Master's and First Professional Awards, which carry cash awards of between US\$5,000 and US\$12,000. The deadline for applications to be postmarked is **January 10, 2008**. The fellowship year runs from July 1, 2008, to June 30, 2009. For more information, see the AAUW's website at http://www.aauw.org/fga/fellowships_grants/selected.cfm or contact the AAUW Educational Foundation, Selected Professions Fellowships, P.O. Box 4030, Iowa City, IA 52243-4030.

—From an AAUW announcement

EDGE Summer Program

The Enhancing Diversity in Graduate Education (EDGE) Program is a postbaccalaureate summer enrichment program 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 mini-courses 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 (1) graduating seniors who have applied to graduate programs in the mathematical sciences, (2) recent recipients of undergraduate degrees who are now entering graduate programs, or (3) first-year graduate students. All applicants should have completed standard junior- or 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 on acceptance to a graduate program in the mathematical sciences.

The 2008 EDGE Summer Program will be held June 5–July 2, 2008, at Pomona College in Claremont, CA, with local coordinator Dr. Ami Radunskaya. The deadline for applications is **March 3, 2008**. See the website <http://www.edgeforwomen.org/enextyear.html> for further information as it becomes available.

—From an EDGE Program announcement

News from the Fields Institute

Applications are invited for postdoctoral fellowship positions at the Fields Institute in Toronto, Ontario, Canada, for the 2008–2009 academic year. The Thematic Program on Arithmetic Geometry, Hyperbolic Geometry, and Related Topics will take place from July through December 2008, and the Thematic Program on O-Minimal Structures and Real Analytic Geometry will take place from January through June 2009. The fellowships provide for a period of engagement in research and participation in the activities of the Institute. They may be offered in conjunction with partner universities, through which a further period of support may be possible.

Qualified candidates who will have recently completed their Ph.D. degrees in a related area of the mathematical sciences are encouraged to apply. The deadline is **December 7, 2007**. For more information see <http://www.fields.utoronto.ca/proposals/postdoc.html>.

—From a Fields Institute announcement

News from IPAM

The Institute for Pure and Applied Mathematics (IPAM), located at the University of California, Los Angeles, holds long- and short-term research programs and workshops throughout the academic year for junior and senior mathematicians and scientists who work in academia, the national laboratories, and industry. In the summer IPAM sponsors a program for undergraduate students (RIPS) and graduate students/postdocs (Summer School). IPAM's upcoming programs are listed below. Please go to <http://www.ipam.ucla.edu> for detailed information and online application and registration forms.

IPAM's Science Advisory Board meets in November, when it considers program proposals. Program proposals from the community are encouraged; instructions are available at our website.

IPAM is seeking its next director, to begin July 2008. Information about the position and how to apply is available on our website.

Mathematics of Knowledge and Search Engines, September 10–December 14, 2007. The application for the long program is closed, but you may still register for the two remaining Search Engines workshops:

- Workshop III: Social Data Mining and Knowledge Building. November 5–9, 2007.
- Workshop IV: Search and Knowledge Building for Biological Datasets. November 26–30, 2007.

Winter 2008 Short Programs. You may apply online for support to attend each workshop.

- Scientific Computing Applications in Surgical Simulation of Soft Tissues. January 7–11, 2008.
- Image Analysis Challenges in Molecular Microscopy. January 28–February 1, 2008.
- Expanders in Pure and Applied Math. February 11–15, 2008.
- Graph Cuts and Related Discrete or Continuous Optimization Problems. February 25–29, 2008.

Optimal Transport, March 10–June 13, 2008. Please apply by February 1, 2008. This long program includes the following workshops that are also open for participation. You may apply online for support to be core participants for the entire program or to attend individual workshops.

- Optimal Transport Tutorials. March 11–14, 2008.
- Workshop I: Aspects of Optimal Transport in Geometry and Calculus of Variations. March 31–April 4, 2008.
- Workshop II: Numerics and Dynamics for Optimal Transport. April 14–18, 2008.
- Workshop III: Transport Systems in Geography, Geosciences, and Networks. May 5–9, 2008.
- Workshop IV: Optimal Transport in the Human Body: Lungs and Blood. May 19–23, 2008.

Summer School: Mathematics in Brain Imaging, July 14–25, 2008. Please see the webpage for more information and an online application.

Research in Industrial Projects for Students (RIPS) 2008, June 22–August 22, 2008. Teams of undergraduate students from around the world solve industrial problems

involving mathematics. Each project is sponsored by industry. Applications are due February 15.

Internet Multi-Resolution Analysis, September 8–December 12, 2008. The schedule of workshops will be available online soon.

Quantum and Kinetic Transport Equations: Analysis, Computations, and New Applications, March 9–June 12, 2009. The schedule of workshops will be available online soon.

—From an IPAM announcement

News from the Institut Mittag-Leffler

The Institut Mittag-Leffler, Djursholm, Sweden, announces its programs for the academic year 2008–2009.

The fall term 2008 will be devoted to *Geometry, Analysis and General Relativity*. The organizing committee consists of Hans Ringström (chair), KTH, Stockholm; Lars Andersson, Albert-Einstein-Institut, Golm; Piotr Chruściel, Oxford University; and Richard Schoen, Stanford University.

The spring term 2009 will be devoted to *Discrete Probability*. The organizing committee consists of Sven Erick Alm (chair), University of Uppsala; Olle Häggström, CTH, Gothenburg; Svante Janson, University of Uppsala; Kurt Johansson, KTH, Stockholm; and Jeff Steif, CTH, Gothenburg.

The application deadline for postdoctoral fellowships is **January 31, 2008**. Applications should be sent to Marie-Louise Koskull, email: koskul1@mittag-leffler.se. The postal address is: Institut Mittag-Leffler, Auravägen 17, SE-182 60 Djursholm, Sweden.

For further information and application forms, see our homepage, <http://www.mittag-leffler.se/programs/0809/grants.php>.

—Institut Mittag-Leffler announcement