Mathematics Opportunities

American Mathematical Society Joan and Joseph Birman Fellowship

Invitation for Applications for Awards for 2019–2020
Deadline December 1, 2018

Description: The Joan and Joseph Birman Fellowship for Women Scholars is a mid-career research fellowship specially designed to fit the unique needs of women. The fellowship is open only to women and was established in 2017, made possible by a generous gift from Joan and Joseph Birman. One fellowship in the amount of US$50,000 will be awarded for the 2019–2020 academic year.

Eligibility: The fellowship seeks to address the paucity of women at the highest levels of research in mathematics by giving exceptionally talented women extra research support during their mid-career years. The most likely awardee is a mid-career woman, based at a U.S. academic institution, with a well-established research record in a core area of mathematics. The fellowship will be directed toward those for whom the award will make a real difference in the development of their research careers. Candidates must have a carefully thought-through research plan for the fellowship period. Special circumstances (such as time taken off for care of children or other family members) may be taken into consideration in making the award. The fellowship can be used to provide additional time for research of the awardee or opportunities to work with collaborators. This may include, but is not limited to, course buy-outs, travel money, child care support, or support to attend special research programs.

Deadline: Applications will be accepted starting **September 1, 2018**. The deadline for receipt of applications is **December 1, 2018**. The award recipient will be announced in February 2019.

Application information: Find Birman application information at `www.ams.org/programs/ams-fellowships/Birman-fellow`. For questions, contact the Professional Programs Department, American Mathematical Society, 201 Charles Street, Providence, RI 02904-2294; `prof-serv@ams.org`; 401-455-4096.

—AMS Professional Programs Department

*NSF Graduate Research Fellowships

The National Science Foundation's Graduate Research Fellowship Program recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines who are pursuing research-based master's and doctoral degrees at US institutions. Fellows receive a three-year annual stipend, opportunities for international research and professional development, and the freedom to conduct their research at any accredited US institution of graduate education. The deadline for the mathematical sciences is **October 26, 2018**. For further information, visit `www.nsf.gov/funding/pgm_summ.jsp?pims_id=6201`.

—From NSF announcements

*Joint DMS/NIGMS Initiative to Support Research at the Interface of the Biological and Mathematical Sciences

The Division of Mathematical Sciences at the National Science Foundation and the National Institute of General Medical Sciences at the National Institutes of Health support fundamental research in mathematics and statistics necessary to answer questions in the biological and biomedical sciences. This program is designed to encourage new collaborations, as well as to support innovative activities by existing teams. The submission window for full proposals is **October 1–18, 2018**. See `www.nsf.gov/funding/pgm_summ.jsp?pims_id=5300`.

—NSF announcement

*NSF Conferences and Workshops in the Mathematical Sciences

The National Science Foundation (NSF) supports conferences, workshops, and related events (including seasonal schools and international travel by groups). Proposals for such activities may request funding of any amount and for durations of up to three years. Proposals may be submitted only by universities and colleges or by nonprofit nonacademic institutions and must be submitted to the appropriate disciplinary program in accordance with the lead-time requirements specified on the program web page. For more information, see www.nsf.gov/funding /pgm_summ.jsp?pims_id=11701&org=DMS

—NSF announcement

*NSF Project ADVANCE

The ADVANCE program of the National Science Foundation focuses on funding projects that support systemic change for gender equity in STEM academic careers. The deadline for letters of intent is **December 12, 2018**. See www.nsf.gov/funding/pgm_summ.jsp?pims _id=5383&org=DMS&sel_org=DMS&from=fund.

—NSF announcement

Mathematics Research Communities 2019

The AMS invites mathematicians just beginning their research careers—those who are close to finishing their doctorates or have recently finished—to become part of Mathematics Research Communities (MRC), a unique and successful program that builds social and collaborative networks through which individuals inspire and sustain each other in their work. Women and underrepresented minorities are especially encouraged to participate. Partially supported by the National Science Foundation, the structured program engages and guides all participants as they start their careers. Those accepted into the program will receive support for the summer conference and will be partially supported for their participation in the Joint Mathematics Meetings that follow in January 2020. The program also includes discussion networks by research topic and a longitudinal study of early-career mathematicians.

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*The most up-to-date listing of NSF funding opportunities from the Division of Mathematical Sciences can be found online at: www.nsf.gov/dms and for the Directorate of Education and Human Resources at www.nsf.gov/dir/index.jsp?org=ehr. To receive periodic updates, subscribe to the DMSNEWS listserv by following the directions at www.nsf.gov/mps/dms/about.jsp.

Three conferences will be held in summer 2019 on the following topics:

Week 1: June 2–8, 2019: Geometric Representation Theory and Equivariant Elliptic Cohomology
Organizers:
- Dan Berwick-Evans (University of Illinois at Urbana–Champaign)
- Emily Cliff (University of Illinois at Urbana–Champaign)
- Nora Ganter (University of Melbourne)
- Arnav Tripathy (Harvard University)
- Josh Wen (University of Illinois at Urbana–Champaign)

Week 2: June 9–15, 2019: Stochastic Spatial Models
Organizers:
- Shankar Bhamidi (University of North Carolina, Chapel Hill)
- Gerandy Brito (Georgia Institute of Technology)
- Michael Damron (Georgia Institute of Technology)
- Rick Durrett (Duke University)
- Matthew Junge (Duke University)

Week 3: June 16–22, 2019: Explicit Methods in Arithmetic Geometry in Characteristic p
Organizers:
- Renee Bell (University of Pennsylvania)
- Julia Hartmann (University of Pennsylvania)
- Valentijn Karemaker (University of Pennsylvania)
- Padmavathi Srinivasan (Georgia Institute of Technology)
- Isabel Vogt (Massachusetts Institute of Technology)

Individuals who are one to two years prior to receiving their PhDs or one to five years after receiving their PhDs are welcome to apply. Most of those supported by NSF funds to participate in the MRC program will be US-based, that is, employed by or full-time students at a US institution at the time of the MRC summer conference. However, the terms of the grant allow for a limited number of individuals who are not US-based. All participants are expected to be active in the full MRC program. Detailed instructions are available at www.ams.org/programs /research-communities/mrc-19. Applications are due no later than **February 15, 2019**.

For further information on Mathematics Research Communities visit the website www.ams.org/mrc or contact Steven Ferrucci at ams-mrc@ams.org.

—Steven Ferrucci
AMS Senior Program Coordinator

Call for Proposals for the 2020 AMS Short Courses

The AMS Short Course Subcommittee invites submissions of preliminary proposals for Short Courses to be offered on January 13–14, 2020, in coordination with the 2020 Joint Mathematics Meetings in Denver, Colorado. Members of the mathematical community are also welcome to suggest names of colleagues as potential organizers.

Preliminary proposals may be as short as one page, and suggestions and questions are welcome. Proposals should be sent via email to the Associate Executive Director (aed-mps@ams.org) with a cc to Robin Hagan Aguiar (rha@ams.org).

A short course typically incorporates a sequence of survey lectures and other activities focused on a single theme of applied mathematics. The Subcommittee is also interested in proposals that go beyond the traditional course in methodology and subject matter. Proposers might be interested in a webinar format or other mechanisms for reaching an audience that extends beyond those at the JMM site, or they may want to appeal to mathematicians who are considering careers in business, industry, government, and nonprofit sectors that utilize mathematical training and experience.

For full consideration, 2020 Short Course proposals should be submitted by **December 18, 2018**. More detailed guidance on proposals is available at www.ams.org/meetings/short-courses/2019call.

Mathematical Sciences Research Institute, Berkeley, CA

MSRI invites applications for Research Members and Postdoctoral Fellows in the following programs: *Holomorphic Differentials in Mathematics and Physics* (August 12–December 13, 2019), *Microlocal Analysis* (August 12–December 13, 2019), *Quantum Symmetries* (January 21–May 29, 2020) and *Higher Categories and Categorification* (January 21–May 29, 2020). Research Memberships are intended for researchers who will be making contributions to a program and who will be in residence for one or more months. Postdoctoral Fellowships are intended for recent PhDs.

MSRI uses MathJobs to process applications. Interested candidates must apply online beginning August 1, 2018. To receive full consideration, applications must be complete, including all letters of support, by **December 1, 2018**. Application information can be found at www.msri.org/application.

It is the policy of MSRI actively to seek to achieve diversity in its programs and workshops. Thus, a strong effort is made to remove barriers that hinder equal opportunity, particularly for those groups that have been historically underrepresented in the mathematical sciences.

MSRI has been supported from its origins by the National Science Foundation, now joined by the National Security Agency, over 100 Academic Sponsor departments, by a range of private foundations, and by generous and far-sighted individuals.

—MSRI announcement

NSA's MSP

The National Security Agency's Mathematical Sciences Program (MSP) invites proposals from Principal Investigators who are seeking grants to support Research Experiences for Undergraduates, conferences, and other special events that will take place during calendar years 2019 and 2020. The MSP will accept proposals for these activities during the timeframe **September 1, 2018** to **October 15, 2018**. Proposals must be submitted via email to the address MSPgrants@nsa.gov. PIs who plan to submit proposals should also follow the guidelines available on the NSA website (https://www.nsa.gov/what-we-do/research/math-sciences-program).

Questions may be directed to Charles Toll (chtoll@nsa.gov) or Barbara Johnson (bajohn1@nsa.gov).

—NSA announcement