Mathematics Opportunities

American Mathematical Society Centennial Fellowships

Invitation for Applications for Awards for 2000–01
Deadline December 1, 1999

The AMS Centennial Research Fellowship Program makes awards annually to outstanding mathematicians to help further their careers in research. Recently, the AMS Council approved changes in the rules for the fellowships. From 1984–96 the fellowship program was aimed at midcareer mathematicians. The changes adopted four years ago redirected the fellowship program toward recent Ph.D.'s. The eligibility rules are as follows.

Applicants must: (1) be citizens or permanent residents of a country in North America, (2) have held their doctoral degrees for at least two years at the time of the award, (3) not have permanent tenure, and (4) have held less than two years of research support at the time of the award. (Each year of a full-time teaching appointment with teaching load less than four [respectively, five] courses per year on the semester [respectively, quarter] system will count in this respect as one-half year of research support.) Recipients may not hold the Centennial Fellowship concurrently with other research fellowships (e.g., Sloan Foundation Fellowships or National Science Foundation Postdoctoral Fellowships), they may not use the stipend solely to reduce teaching at the home institution, and they are expected to spend some of the fellowship period at another institution that has a stimulating research environment suited to their research development.

The stipend for fellowships awarded for 2000–01 is expected to be approximately $38,000, with an additional expense allowance of about $1,500. Acceptance of the fellowship cannot be postponed. A fellowship holder may use the stipend as full support for a year or may combine it with half-time teaching and use it as half support over a two-year period.

The number of fellowships to be awarded is small and depends on the amount of money contributed to the program. The trustees have arranged a matching program from general funds in such a way that funds for at least one fellowship are guaranteed. Because of the generosity of the AMS membership, it has been possible to award four to five fellowships a year for the past five years. A list of previous fellowship winners can be found at `http://www.ams.org/secretary/prizes.html`.

Applications should include a short research plan describing both an outline of the research to be pursued and a program for using the fellowship, including institutions at which it will be used and reasons for the choices. The selection committee will base its decision on both the research potential of the applicant, based upon track record and letters of recommendation, and on the quality and feasibility of the research plan.

The deadline for receipt of applications is **December 1, 1999.** Awards will be announced in February 2000 or earlier if possible.

For application forms, write to the Executive Director, American Mathematical Society, P.O. Box 6248, Providence, RI 02940-6248, or send electronic mail to `ams@ams.org`,

or call 401-455-4106. Application forms are also available via the Internet at `http://www.ams.org/employment/`.

Please note that completed application and reference forms should not be sent to the AMS, but to the address given on the forms.

—AMS announcement

New NSF Institute Competition Possible

The Division of Mathematical Sciences (DMS) of the National Science Foundation (NSF) is looking at the possibility of a new institute solicitation, based on advice received from the mathematical community, including the 1999 report *U.S. Research Institutes in the Mathematical Sciences: Assessment and Perspectives*, issued by the Board on Mathematical Sciences of the National Research Council. The NSF has not yet approved a call for proposals, but the DMS is hopeful that a competition for new institutes will be approved. The Division is considering this possibility of additional mathematical institutes within a budgetary framework which will enhance the Division's individual investigator grants and increase its capabilities in other areas. Details will be posted on the Web at `http://www.nsf.gov/mps/dms/` as soon as they are available.

—DMS announcement

NSF Graduate Fellowships

The 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 institution of their choice. They include a $15,000 stipend, tuition coverage, and possible international travel allowances. A review panel of professional mathematicians makes recommendations for awards based on the candidate's intellectual merit and potential for research achievement. The deadline for applications is **November 4, 1999**. For further details of the program, see `http://www.orau.org/nsf/nsffel.htm`.

The number of fellowships awarded in each scientific discipline depends on the number of applications in the discipline. The chairs of last year's selection panels for mathematics and applied mathematics have observed that there were few or no applicants from many excellent mathematics programs that historically have produced many of our most successful mathematicians. In particular there were comparatively few applicants from mathematics programs at most of the large state universities.

To address this problem, the panel chairs recommend that:

— directors of undergraduate programs actively encourage their best students to apply for these fellowships,

— directors of graduate study urge qualified entering graduate students to apply,

— advisors for Putnam and SIAM modeling competitions recommend that their team members apply for these fellowships, and

— everyone encourage more excellent minority and women students to apply.

—Anthony Knapp

Travel Grants for *Mathematical Challenges of the 21st Century*, August 2000

The AMS has applied to the National Science Foundation for funds to permit travel support for U.S. mathematicians attending the special meeting *Mathematical Challenges of the 21st Century*, to be held on the campus of the University of California, Los Angeles, August 7–12, 2000. In anticipation of the availability of funds, the Society is preparing to administer the selection process. This program is open to U.S. mathematicians who received their doctorates on or after January 1, 1994, and to graduate students enrolled in Ph.D. programs in mathematics at U.S. institutions.

Applications for support appear in this issue of the *Notices* (pp. 1317–1319), and downloadable forms are available on e-MATH at `http://www.ams.org/employment/mathchall.html`. All completed application forms must be mailed to the AMS by **January 31, 2000**. Notification of awards is anticipated by April 15, 2000. This travel grants program, if funded, will be administered by the Professional Services Department, AMS, P.O. Box 6248, Providence, RI 02940; e-mail: `mathchall@ams.org`; telephone 401-455-4107. Applications will be evaluated by a panel of mathematicans under the terms of the proposal submitted to the National Science Foundation.

—AMS Professional Services announcement

AMS Epsilon Program: Call for Applications

In the year 2000 the AMS Epsilon Program intends to award five grants of approximately $15,000 each to programs that support and nurture mathematically talented high school students in the United States. The Epsilon Program (in its first year of operation) seeks to fund programs that follow the basic model that has proved so successful in the past: the programs should run over a period of multiple weeks during the summer, bring in at least twenty high school students with mathematical talent, and generally be directed by mathematicians.

Within these broad guidelines many different models of programs will be considered eligible. Programs may focus on any area of mathematics, pure or applied, and may be of narrow or broad focus. Programs that are specifically targeted to one high school year (i.e., ninth graders) or to mathematically talented women or minorities are welcome

to apply. Programs that center around problem solving or mathematical research or both are welcome to apply. Even "summer" is not a firm requirement, though it is expected that most if not all programs will take place during the summer. Programs that use undergraduates or graduate students along with mathematicians in their teaching are particularly encouraged.

Applicant programs for year 2000 must already have a proven track record of at least one year and preferably more. Applicant programs must be physically located in the United States or Canada. It is intended that half of each award should be earmarked for scholarships and half for general support of the program.

Applications for these grants must come directly from the program directors (or equivalent). Individual students or parents may not apply. Applications for support for summer 2000 programs are due **December 15, 1999**. An application form can be obtained by contacting the AMS Professional Services Department at 800-321-4267, ext. 4105, or at `emp-info@ams.org`. It is expected that an electronically available list of these programs will also be developed, so information is being gathered for that purpose as well.

—AMS Professional Services announcement

Call for Nominations for the Richard C. DiPrima Prize

The Richard C. DiPrima Prize will be presented at the annual meeting of the Society for Industrial and Applied Mathematics (SIAM) in Rio Grande, Puerto Rico, July 10–14, 2000. The award honors the memory of Richard C. DiPrima, long-time chair of the Department of Mathematical Sciences at Rensselaer Polytechnic Institute and former president and energetic supporter of SIAM.

The award is given to a young scientist for an outstanding doctoral dissertation in applied mathematics, defined as those topics covered in SIAM journals or series. To be eligible, a nominee should have completed his or her Ph.D. thesis and all other Ph.D. requirements during the time period from July 1, 1997, to June 30, 1999. The Ph.D. degree must be awarded by December 31, 1999.

The award consists of a certificate and a cash prize of $1,000. The recipient of the award will be notified in advance and will be invited to attend the annual meeting to receive the award. Travel expenses will be paid by the prize fund.

Nominations along with a copy of the dissertation (in English) should be sent by **February 15, 2000**, to Ronald A. DeVore, Chair, DiPrima Prize Selection Committee, c/o A. G. Bogardo, Society for Industrial and Applied Mathematics, 3600 University City Science Center, Philadelphia, PA 19104-2688; telephone 215-382-9800; fax 215-386-7999; e-mail: `bogardo@siam.org`.

—SIAM announcement

Program Manager Sought for AFOSR

The Air Force Office of Scientific Research (AFOSR), the single manager of the United States Air Force basic research program, has a position open for a program manager with a strong theoretical computer science background. This position involves managing research programs at various universities across the U.S. and within the Air Force Research Laboratory, evaluating research proposals, determining new research directions, and interfacing with other government funding agencies, operational military organizations, government laboratories, and industry. A large degree of autonomy is provided, and time for individual research or teaching may also be available. AFOSR is located in the Ballston area of Arlington, VA, near the Office of Naval Research, National Science Foundation, and Defense Advanced Research Projects Agency. The present annual salary is up to $104,851, depending upon individual qualifications and salary history. A very highly qualified candidate may also receive a recruiting or retention bonus.

Candidates should have outstanding communication skills, the ability to work with demanding schedules, and the interpersonal skills to work with a wide variety of customers. Applicants should have a strong research record in theoretical computer science with a solid grounding in mathematics. Breadth is preferred, and the applicant should have the ability to evaluate research outside his or her specific field of expertise. An applicant should also have worked with government funding agencies as a grantee or program manager and should have experience in managing coordinated groups of people on large projects as well as managing budgets.

A highly qualified candidate will have a Ph.D. in computer science or a related field and be an internationally recognized expert in computer science, with experience and noteworthy intellectual contributions in real-time analysis, networking (especially wireless), parallel and distributed processing, information warfare, information fusion, or software engineering. Such an individual will have managed or led a large, multiperson, multimillion-dollar program in basic or applied research in computer science and will have had significant experience in the U.S. military, academic, industrial, or national laboratory settings.

Applicants must be U.S. citizens and be able to obtain a security clearance. Applications should be accompanied by a current curriculum vitae and list of publications. Submit applications to Leanna Heagle, 88 SPTG/DPXCB, 4040 Ogden Avenue, Wright-Patterson AFB, OH 45433. Further information may be obtained by contacting Clifford E. Rhoades Jr., Director of Mathematics and Space Sciences, AFOSR/NM, 801 N. Randolph St., Room 732, Arlington, VA 22203-1977; e-mail: `clifford.rhoades@afosr.af.mil`; telephone 703-696-7797; fax 703-696-8450.

—From an AFOSR announcement