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# Mathematics Opportunities

## IBM Herman Goldstine Fellowship in Mathematical Sciences

The Mathematical Sciences Department of the IBM T. J. Watson Research Center invites applications for its 1999–2000 Herman Goldstine Fellowship in Mathematical Sciences for research in mathematical and computer sciences. The fellowship provides scientists of outstanding ability an opportunity to advance their scholarship as resident department members at the Research Center. The department provides an atmosphere in which basic research is combined with experience on technical problems arising in industry.

Candidates must have a doctorate and not more than five years of postdoctoral professional experience at the time the fellowship begins. The fellowship covers a period of one year and may be extended an additional year by mutual agreement. It carries a stipend of at least \$70,000; the actual amount will depend on the experience of the recipient. An allowance for moving expenses is included.

The deadline for application is **January 8, 1999**. Further information is available by e-mail from [mathfell@us.ibm.com](mailto:mathfell@us.ibm.com) or by writing to Herman Goldstine Fellowship Committee, Department of Mathematical Sciences, IBM Research Division, T. J. Watson Research Center, P. O. Box 218, Room 31-210, Yorktown Heights, NY 10598.

—From an IBM T. J. Watson Research Center announcement

## Mittag-Leffler Institute Postdoctoral Grants

The Mittag-Leffler Institute announces a number of grants for the year 1999–2000. The program of the Institute starts on September 1 and ends on May 31. The grants are intended for recent Ph.D.s or advanced graduate students and amount to SEK 12,000 per month. Preference will be given to applications for longer stays, either for one semester or for the whole year.

The subject for 1999–2000 is **Potential theory and non-linear partial differential equations**.

The following experts have already agreed to take part in the program: David Adams, Hiroaki Aikawa, Alano An-

cona, Gunnar Aronsson, Albert Baernstein, Christian Berg, Eugene Dynkin, Bent Fuglede, Stephen Gardiner, Kersti Haliste, Wolfhard Hansen, Kurt Hansson, Stefan Hildebrandt, Ritva Hurri-Syrjänen, Juha Kinnunen, John Lewis, Peter Lindqvist, Walter Littman, Juan Manfredi, Moshe Marcus, Makoto Sakai, James Serrin, Britt-Marie Stocke, Kyril Tintarev, Neil Trudinger, Nina Uraltseva, Igor Verbitskii.

The program committee consists of Matts Essén, Catherine Bandle, Björn Gustafsson, Vladimir Maz'ya, Henrik Shahgholian.

Application should be submitted on an application form (obtainable from the Institute). Request for application forms can also be sent via e-mail to [kosku11@m1.kva.se](mailto:kosku11@m1.kva.se).

Applications should be sent to: The Board of the Mittag-Leffler Institute Auravägen 17 S-182 62 Djursholm, Sweden **before March 31, 1999**. Decisions on awards will be made by mid-April, 1999.

Inquiries may be directed to: Kjell-Ove Widman, Institut Mittag-Leffler, Auravägen 17, S-182 62 Djursholm, Sweden, [widman@m1.kva.se](mailto:widman@m1.kva.se), and Matts Essén, Dept. of Mathematics, University of Uppsala, P.O. Box 480, S-751 06 Uppsala, Sweden, [matts.essen@math.uu.se](mailto:matts.essen@math.uu.se).

—Mittag-Leffler Institute announcement

## SIAM to Present Dahlquist Prize

The Society for Industrial and Applied Mathematics (SIAM) will present the Dahlquist Prize at the Fourth International Congress on Industrial and Applied Mathematics (ICIAM 99) in Edinburgh, Scotland, July 5–9, 1999. The award honors the contributions of Germund Dahlquist to numerical analysis and scientific computing.

The prize, established in 1995, is awarded to a young scientist (normally under age 45) for original contributions to fields associated with Germund Dahlquist, especially the numerical solution of differential equations and numerical methods for scientific computing. The award includes a certificate containing the citation and a cash prize of \$1,000 plus reasonable travel costs to ICIAM 99. The recipient is expected to present a talk at the conference and is encouraged to submit a paper to an appropriate SIAM publication.

Letters of nomination, including a description of the nominee's achievements, should be sent by **January 15,**

1999, to the Dahlquist Prize Selection Committee, c/o Alison Bogardo, Society for Industrial and Applied Mathematics, 3600 University City Science Center, Philadelphia, PA 19104-2688. Supporting letters, or names of knowledgeable persons from whom such letters might be solicited, are also welcome.

—*SIAM news release*

## VIGRE Grants for Integrated Research and Education

The Division of Mathematical Sciences (DMS) of the National Science Foundation (NSF) has announced a new program solicitation for Grants for Vertical Integration of Research and Education (VIGRE). These grants provide support to Ph.D.-granting mathematics departments for the development of innovative educational programs that are integrated with research activities. The intent is to provide meaningful educational experiences for undergraduate and graduate students and to encourage professional development at the postdoctoral level and beyond.

The new solicitation is available on the World Wide Web at <http://www.nsf.gov/cgi-bin/getpub?nsf9916/>. The solicitation, Publication NSF 99-16, supersedes NSF 97-155.

There will be two competitions. Proposals for the first are due on **February 16, 1999** (a letter of intent is due **January 15, 1999**); proposals for the second are due on **July 19, 1999** (with letter of intent due **June 18, 1999**). The competition is open to all qualified departments that have not received VIGRE awards.

—*Elaine Kehoe*

## EDGE Summer Program

Spelman and Bryn Mawr Colleges extend a special invitation to women who will be entering graduate programs in mathematics in the fall of 1999 to participate in a post-baccalaureate summer enrichment program. The Enhancing Diversity in Graduate Education (EDGE) Program will consist of a four-week summer session and an accompanying graduate school mentoring and support network component. The summer program consists of two core courses in analysis and algebra/linear algebra. A set of mini-courses in vital areas of mathematical research, short-term visitors from academia and industry, guest lectures, graduate student mentors, and problem sessions will round out the summer experiences.

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.

The 1999 summer session will be conducted on the campus of Spelman College, Atlanta, GA, June 14–July 9 and codirected by Sylvia Bozeman (Spelman College) and Rhonda Hughes (Bryn Mawr College). A stipend of \$1,800 plus room and board will be awarded to participants.

The application deadline is **March 1, 1999**. Applications should be sent to: EDGE Program, Box 270, Spelman College, Atlanta, GA 30314.

Visit the program's Web site at <http://www.brynmawr.edu/Acads/Math/>.

Major funding for this program is provided by the National Science Foundation.

—*Sylvia Bozeman and Rhonda Hughes*

## News from MSRI

The Mathematical Sciences Research Institute (MSRI) in Berkeley, California, and Hewlett Packard Laboratories (HPL) are pleased to announce the beginning of the new Visiting Research Professor (VRP) program. This position, funded by HPL, is intended for a senior mathematical scientist, of the highest research qualifications, who can contribute to the programs at MSRI and HPL. The first VRP will be a one-year position beginning in fall 1999; subsequent appointments may be for longer duration. The program is similar to a program run by HPL jointly with the Isaac Newton Institute in Cambridge, England.

The VRP program extends a collaboration between MSRI and HPL that began in 1998 with the MSRI/HPL internships. Under this program an MSRI postdoc can spend the two summer months preceding his or her fellowship, three days per month during the fellowship, and possibly the two summer months after the fellowship consulting in one of HPL's research groups. These postdocs are fully funded by HPL. The first two MSRI/HPL interns began last summer. They are Michael Rubinstein (elliptic curves and random matrix models) and Paul Gross (nonlinear dynamics). For the year 1999–2000 HPL intends to fund up to four such positions at MSRI. MSRI has initiated further internship programs with Microsoft Research and the National Energy Research Scientific Computing Center at Lawrence Berkeley National Laboratories; these will begin in the year 1999–2000 if there are suitable candidates.

Information on both these programs may be found on MSRI's Web site, <http://www.msri.org/>. The postal address is MSRI, 1000 Centennial Drive, Berkeley, CA 94720-5070. The telephone number is 510-642-0143. Deadline for applications is **February 15, 1999**. Prospective applicants are requested to inform MSRI by **January 25, 1999**, of the intent to apply.

—*MSRI*