

AWM

ASSOCIATION FOR WOMEN IN MATHEMATICS

Volume 30, Number 5

NEWSLETTER

September–October 2000

PRESIDENT'S REPORT

Here I am in the middle of an all-too-short summer, trying to write something you'll read in September, when everyone should be refreshed and back at work. I don't feel any too refreshed yet! I am looking forward to the AWM receptions in August at the Mathfest and the Mathematical Challenges meetings, and to Audrey Terras's AWM/MAA talk at the former meeting and Carolyn Mahoney's evening presentation at the latter, but I'm rather frantic about the current state of my preparations for my own talk.

One AWM deadline will have just passed (September 1) for giving talks or presenting posters for the AWM Workshop at the Joint Mathematics Meetings in New Orleans, and one AWM meeting will be happening (the IMA/AWM Career Workshop on Connecting Women in Mathematical Sciences to Industry, September 8–10). But three deadlines come up on October 1: Travel Grant applications, nominations for the Alice Schafer Prize (for undergraduate work) and nominations for the Louise Hay award (for contributions to mathematics education). Another deadline is October 15 for Noether lecture nominations. Yet another deadline is November 17: the AWM Scholars at the AAAS meeting, a program for graduate and advanced undergraduate women students in mathematics. See the announcements elsewhere in this issue or on the AWM website, www.awm-math.org.

Looking at this list reminds me of the range of activities that AWM engages in. Our mission is broad: to encourage women to study and have active careers in the mathematical sciences. There is only one big part of this big picture that we seem to be missing, namely reaching kids before high school. We plan to address that via the AWM panel at the Joint Mathematics Meetings, where the topic will be "AWM and K–8 Education: What Should We Do?"

Internally, AWM has another new employee: Muriel Daley, who will be working for us half-time. She has taken over the accounting part of the job of Doug Farquhar, who has left AWM for greener pastures. We were sorry to lose Doug, but Muriel is a fine addition to the current Dawn-Roya team.

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AWM

ASSOCIATION

FOR WOMEN IN

MATHEMATICS

The Association was founded in 1971 at the Joint Meetings in Atlantic City. The purpose of the association is to encourage women to study and to have active careers in the mathematical sciences. Equal opportunity and the equal treatment of women in the mathematical sciences are promoted.

The *Newsletter* is published bi-monthly. The Editor welcomes articles, letters, and announcements.

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EXECUTIVE COMMITTEE

President

Jean Taylor
Department of Mathematics
Rutgers University
New Brunswick, NJ 08903
taylor@math.rutgers.edu

President-Elect

Suzanne Lenhart

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Amy Cohen

Members-at-Large

Joan Feigenbaum
Gail Ratcliff
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Ginger Warfield
Tilla Weinstein

Clerk

Sue Geller

Meetings Coordinator

Bettye Anne Case; case@math.fsu.edu

Newsletter Editor

Anne Leggett; leggett@math.luc.edu

AWM OFFICE

Director of Membership, Meetings and Marketing

Dawn V. Wheeler; awm@math.umd.edu

Program and Grant Administrator

Roya Jaseb; awm@math.umd.edu

Accountant

Muriel B. Daley; awm@math.umd.edu

And AWM greatly appreciates receiving a new grant of \$5000 from ExxonMobil Foundation for general support of its programs and activities.

The AWM website <http://www.awm-math.org> continues to grow in popularity, with an average of 250 visitors per day in May 2000. Our visitors include many middle and high school students, seeking biographies of female mathematicians for reports in their math classes. (In fact, the biographies page is the most popular subpage, and the well-known Agnes Scott Women in Math Biographies site is our #1 referrer.) Additionally, the website continues to serve the AWM membership, having recently added online advertisements and a discussion forum. We encourage you to check out these new features. We are also looking for volunteers to continue to improve the web site — send email to awm-webmaster@awm-math.org if you're interested.

Externally, the rosy picture for NSF funding has become considerably cloudier. The House has passed HR 4635, the bill that appropriates money for NASA, NSF, and EPA. In it, NSF's R&D is increased 3.9% over fiscal year 2000 but is well below the 19.8% increase requested by President Clinton. It is worth observing that while federal support for research increased approximately 4 percent in FY99, federal support for research and development (R&D) has been steadily dropping, from about 1 percent of gross domestic product in the 1960s on non-defense R&D to 0.5 percent today. The decline has gained steam since 1987, with federal investments in research shrinking at an average annual rate in inflation-adjusted dollars of 2.3 percent between 1987 and 1997. Now this year it all comes down to the Senate appropriations bill and the conference which will iron out the differences. Early September should be a critical time; look at the AAAS R&D Budget and Policy Page, <http://www.aaas.org/spp/R&D/> or its linked page <http://www.aaas.org/spp/dspp/rd/approp.htm>, or the JPBM page <http://www.jpbm.org/BudgetFigs.html>, for the current status. Your messages to Congress do count. Press your Senators to push for an NSF appropriation with an increase of at least \$675 million (the President's budget request). The House passed an appropriation with an increase of \$149 million.

Other news relevant to women in mathematics: The American Mathematical Society's Washington Office organized a Congressional luncheon briefing on July 19. It consisted primarily of a talk by Mary Wheeler (University of Texas, Austin and a former AWM Noether Lecturer) on "What Does Water Know About Mathematics?" The room in the basement of the Rayburn House Office Building was packed, primarily with congressional staffers, but Representative Vernon Ehlers, a staunch supporter of science, was there. Some of the other attendees were the participants in the George Washington University Summer Program for Women in Mathematics, AMS President Felix Browder, NSF mathematics division director Philippe Tondeur, and me.

In June there were events organized by AWIS (the Association for Women in Science) and others in connection with the United Nations Beijing+Five conference. I listened to a number of talks and participated in several discussion groups. I was greatly interested to learn of major reluctance to put science and technology directly into the Platform for Action and its follow-ups. Science and technology is of course a part of many of the twelve major areas of the Platform. It seems to me, and to many of those of us with Western perspectives, that advances in science and technology help create wealth and more often than not improve people's lives. But some of those from developing nations see it as part of the imperialism of the United States, and believe that science and technology are used either just to create wealth for American companies that will flow back to the U.S., or are imposed on them according to a vision created in the West that fails to take into account experiences and needs as perceived locally. Thus the words "science and technology" themselves become loaded words.

Back in May, I participated in a Princeton University Faculty-Alumni Forum entitled "Women in Science: Why So Few?" Some of my remarks should appear in the publication of the local chapter of AWIS, <http://www.geocities.com/Cjcwawis/>. Other science-related activities I've attended over the past couple of months include three science and technology policy forums at the New York Academy of Sciences: Senatorial candidate Hillary Rodham Clinton (July 17), Representative Vernon Ehlers (June 26), and Gregory Burnham, a Ph.D. mathematician who is the Chief Technology Officer of the Port Authority of New York and New Jersey (June 5). Hillary (as everyone calls her) was quite impressive to me in her commitment to science and technology as a path to economic development, and Vern Ehlers has a long record of support of science in the House of Representatives. And as for Gregory Burnham, to quote the flyer, "He has responsibility for developing and implementing strategies for the innovative use of new technologies at the Port Authority and for directing the day-to-day computing support." I asked about the current status of mathematical models of traffic flow, recalling the material I've taught concerning the use of first order PDEs to model traffic flow, but alas: it seems that the way the field is going these days is intensive manipulation of real-world data (EZPass, anyone?)

MEMBERSHIP AND NEWSLETTER INFORMATION

Membership dues

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 Contributing: \$100 Retired, part-time: \$25
 Student, unemployed, developing nations: \$15
 Friend: \$1000 Benefactor: \$2500
 All foreign memberships: \$8 additional for postage
 Dues in excess of \$15 and all contributions are deductible from federal taxable income.

Institutional Members:

Level 1: \$250
 Level 2a: \$125
 Level 2b: \$125

See <http://www.awm-math.org> for details on free ads, free student memberships, and ad discounts.

Affiliate Members: \$250

Institutional Sponsors:

Friend: \$1000+ Patron: \$2500+
 Benefactor: \$5000+ Program Sponsor: \$10,000+
 See the AWM website for details.

Subscriptions and back orders

All members except family members receive a subscription to the newsletter as a privilege of membership. Libraries, women's studies centers, non-mathematics departments, etc., may purchase a subscription for \$50/year (\$58 foreign). Back orders are \$6/issue plus shipping/handling (\$5 minimum).

Payment

Payment is by check (drawn on a check with a U.S. branch), U.S. money order, or international postal order. Cash payment will be accepted if necessary, but only in U.S. currency.

Newsletter ad information

AWM will accept advertisements for the *Newsletter* for positions available, programs in any of the mathematical sciences, professional activities and opportunities of interest to the AWM membership and other appropriate subjects. The Director of Marketing, in consultation with the President and the Newsletter Editor when necessary, will determine whether a proposed ad is acceptable under these guidelines. *All institutions and programs advertising in the Newsletter must be Affirmative Action/Equal Opportunity designated.* Institutional members receive discounts on ads; see the AWM website for details. For non-members, the rate is \$60 for a basic four-line ad. Additional lines are \$6 each. See the AWM website for *Newsletter* display ad rates.

Newsletter deadlines

Editorial: 24th of January, March, May, July, September, November

Ad: 1st of February, April, June, August, October, December

Addresses

Send all *Newsletter* material except ads and material for book review and education columns to Anne Leggett, Math Dept., Loyola University, 6525 N. Sheridan Road, Chicago, IL 60626; email: leggett@math.luc.edu; phone: 773-508-3554; fax: 773-508-2123. Send all book review material to Marge Murray, Math Dept., 460 McBryde Hall, Virginia Tech, Blacksburg, VA 24061-0123; email: murray@calvin.math.vt.edu and all education column material to Ginger Warfield, Math Dept., University of Washington, Seattle, WA 98195; email: warfield@math.washington.edu. Send everything else, including ads and address changes, to Dawn V. Wheeler, 4114 CSS Building, University of Maryland, College Park, MD 20742-2461; phone: 301-405-7892; email: awm@math.umd.edu.

AWM ONLINE**Web Editor**

Tamara G. Kolda
tgkolda@sandia.gov

Associate Web Editor

Ruth Pfeiffer
pfeiffer@mail.nih.gov

Online Ads Coordinator

Aileen Gormley
aeg@wam.umd.edu

Online Ads Info

Classified and job link ads may be placed at the AWM website. Detailed information may be found there.

Website

<http://www.awm-math.org>

AWM-Net Editor

Dianne O'Leary
oleary@cs.umd.edu

AWM-Net

send mail to awm-net-request@cs.umd.edu and include your email address; AWM members only

AWM DEADLINES

AWM Workshop, New Orleans: September 1, 2000 (pending funding)

NSF-AWM Travel Grant: October 1, 2000; February 1 and May 1, 2001

Louise Hay Award: October 1, 2000

Alice T. Schafer Prize: October 1, 2000

AWM Scholars: November 17, 2000 (pending funding)

AWM Workshop, SIAM: January 23, 2001 (pending funding)

NSF-AWM Mentoring Travel Grant: February 1, 2001

Sonia Kovalevsky High School Days: February 5, 2001

AWM CALENDAR

IMA/AWM Workshop, September 8–10, 2000

AWM CONTACT INFO

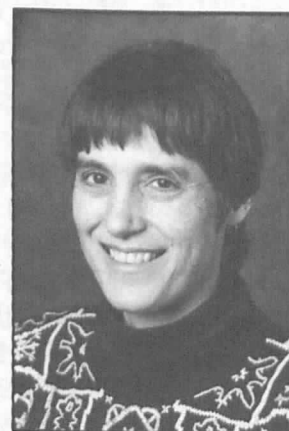
4114 Computer & Space Sciences Building
University of Maryland
College Park, MD 20742-2461
301-405-7892
awm@math.umd.edu

rather than any PDE-type modeling. Sounds a bit like what I see happening with interdisciplinary mathematics and materials science.

Perhaps as a result of the talk I'm preparing for the Mathematics Challenges meeting, I've been thinking about what mathematicians do these days. Of the four students who have received Ph.D.'s under my direction in the 1990s, two are working on Wall Street, one for the National Security Agency, and one as a mathematician and computer systems person within the Ceramics Division at NIST. All seem deliriously happy with their jobs, yet none of the jobs appeared on the horizon when I got my Ph.D. Here are some quotes from the NYAS Burnham forum (from several different sources): "Much more than a few decades ago, there are mathematicians everywhere, and that is for the good." "You can't manage anything unless you can measure it." "Mathematicians are everywhere, but what they are doing is less recognizable as traditional mathematics." Food for thought, at least for me.

Jean E Taylor

Jean Taylor
Princeton, NJ
July 27, 2000

**SATTER PRIZE**

The Ruth Lyttle Satter Prize is presented every two years in recognition of an outstanding contribution to mathematics research by a woman during the previous five years. The selection committee requests nominations for consideration for the 2001 award, which will be presented at the Joint Mathematics Meetings in January. Information about this prize may be found at <http://www.ams.org/ams/prizes.html>. Nominations, which will be forwarded to the committee, should be submitted to the Secretary, Robert J. Daverman, American Mathematical Society, 312D Ayres Hall, University of Tennessee, Knoxville, TN 37996 and should include a short description of the work that is the basis of the nomination (with complete bibliographic citations) and a brief curriculum vitae of the nominee. The deadline for nominations is **September 15, 2000**.

AMS ELECTION

All persons standing for election for contested office in the American Mathematical Society (AMS) were asked to submit statements. The letter sent to them read in part:

You may choose to address any of the topics listed below.

1. This year, 2000, has been designated as World Mathematical Year. What is your sense of the global role of mathematics in addressing the issues of the twenty-first century?
2. In what way can the mathematical community address the underrepresentation of women and minorities in our field? (what can be done to encourage their participation? what can the AMS do? what societal changes are necessary?)
3. What do you see as the role of the AMS, and the role of your office in the AMS?

Statements were limited in length to a maximum of one newsletter page.

The Council nominated Ingrid Daubechies and M. Susan Montgomery for Vice-President, one to be elected for a term of three years. The Council nominated John B. Conway and Douglas A. Lind for Trustee, one to be elected for a term of five years. The Council nominated the following candidates for Member-at-Large of the Council: Walter L. Craig, Keith J. Devlin, Irene Fonseca, Joel Hass, William James Lewis, Paul S. Muhly, Alexander J. Nagel, Louise A. Raphael, and Hema Srinivasan. Five will be elected to serve terms of three years. The President has nominated the following candidates for the Nominating Committee: Jonathan Alperin, Irwin Kra, Cora Sadosky, Audrey A. Terras, Thomas W. Tucker, and Stephen H. Weintraub. Three will be elected. The President has also nominated the following candidates for the Editorial Boards Committee: Paul R. Blanchard, Tony F. Chan, Jane Gilman, and Paul R. Goodey. Two will be elected. Unless otherwise noted, the respondents are professors in departments of mathematics.

All statements received by press time appear below; late arrivals will appear in the next issue. See the AMS *Notices* for biographical data and additional information.

Paula Russo, Member-at-large, AWM Executive Committee, Trinity College

VICE PRESIDENT

M. Susan Montgomery, University of Southern California

1. Statement for the AMS:

The basic mission of the AMS is to foster research and scholarship in mathematics. Although deeply committed to research, I support the recent broadening of the AMS' mission to include activities related to education, to the mathematical profession, and to outreach to the scientific community and to the general mathematical public; in the long run, these activities are vital to the future of research. I am particularly concerned about two issues. The first is the position of young mathematicians. Although the academic job market has improved somewhat, it is still not very good. We should make our students more aware of other interesting options, but we might also be able to make the academic job market easier to deal with, by some united efforts. The coordinated reply date for postdoctoral positions, agreed to by many departments for the last two years, is a good first step. The second issue is the low representation of minorities and women on our research faculties; the AMS should take an active stance in trying to improve this situation.

2. Additional statement for the AWM:

There are still very few tenured women on the math faculties of the major research universities; it is discouraging that not much progress has been made in recent years. My impression is that it is not so difficult for a new Ph.D. to get a temporary position, and that the real crunch comes in getting a tenure-track or tenured position, although my evidence is anecdotal. The reasons for this are varied, including two-body problems and lingering discrimination.

It would be very helpful to have some real data on what has actually happened: for example, a survey or at least a sample of women who have had their Ph.D.'s for five or ten years. The current Data Committee (jointly supported by the AMS and a number of other societies) is in a good position to gather this data, and in fact may already be doing some of it. The AMS should support this effort. Moreover when I was on the BMS such a study was discussed, and thus they might provide some financial support for such a study.

Additionally if the NSF decreases its support for various programs for women, such as the POWRE

program and the AWM Travel Grants, the AMS might be able to help the AWM obtain alternate funding for some of its programs.

TRUSTEE

John B. Conway, Professor & Head, University of Tennessee, Knoxville

It seems clear to me that society's demands on academia are changing, with a call for us to become more involved in educational issues while continuing progress in research. This is reflected in a significantly increased portion of AMS meetings and activities being dedicated to K-12 issues. I regard this as healthy not only for society but for the long-range development of the profession.

I see my role as a member of the Board of Trustees as helping to promote the profession in all aspects: research, teaching, enhancing K-12 matters, and increasing public awareness of the special role of mathematics in life.

The AMS is committed to increased participation by women and minorities in the profession. The main factors impeding that participation are cultural. Though the AMS cannot directly change the culture, it can contribute by making the public aware of the significant role played by women and minorities in the profession. Indeed, the AMS has only recently taken action to enhance the public perception of mathematics. I think it should do more. We should make everyone aware that mathematics is a large enterprise, with room for people from all backgrounds and greatly varying talent levels and interests.

Douglas A. Lind, University of Washington

In addition to its fundamental role of supporting research in the mathematical sciences, the AMS has other related and equally serious obligations. These include publication of high quality and cost effective journals and books, strong advocacy for mathematics in congress and federal agencies, continued efforts to publicize the mathematical sciences, promotion of the diversity and inclusiveness of our profession, and support for broader graduate training.

The health of our subject depends heavily on the health of mathematical sciences departments in colleges and universities. As a member of the AMS Task Force on Excellence for six years, I learned first-hand about

the crucial role that departmental leadership plays in creating strong and vibrant departments that are well supported by their administration. Our resource book, *Towards Excellence*, gives many examples where leadership made a huge difference. The AMS can promote and improve such leadership in various ways. These include the annual AMS workshops for new and recent chairs, meetings such as the AMS Leadership Conference for doctoral departments held last summer (both of which I helped to organize and run), and a leadership exchange program in which a small team from one department would visit another to find out how they do things, and to exchange ideas, information, and experiences.

Improving the participation by women and underrepresented minorities is now an even more important goal for the AMS, in light of recent attacks on affirmative action such as the one last November in my own state. We need to make sure that all highly qualified individuals have the opportunity and are encouraged to make full use of their talents.

Technology and the Internet are transforming our discipline. How will we communicate, publish, and teach in the years ahead? What economic models for the AMS can succeed? This technology has vast potential, but also dangers. For example, the primary funding for the AMS comes from its publications, which may be radically transformed in the future. My experience with and enthusiasm for technology can help guide decisions by the AMS.

Trustees safeguard the financial and operational integrity of the AMS. They set fiscal policy and oversee the business affairs of the Society. My background as department chair for five years, my involvement in various positions at MSRI including Trustee, and my participation on AMS committees provide me with a sound perspective for the duties of an AMS Trustee.

MEMBER AT LARGE OF THE COUNCIL

Walter L. Craig, Professor and Chair, Brown University

The American Mathematical Society, along with the other mathematics professional organizations, has the role of promoting mathematics and the profession of mathematician in our society. A vigorous and diverse mathematical sciences establishment is very important

for the flourishing of the physical and biological sciences, for the education of a scientifically literate population in our increasingly technological society, and the beauty of mathematics is a cultural goal in its own right.

It is very important for the AMS to represent our diverse community of mathematicians to the public, to the government and to the private sector. We are currently facing a number of big questions over the future of our profession: the availability of postdoctoral research opportunities for young Ph.D.'s, the funding of graduate students, the demographics of tenure-track or permanent university positions, competitive professional salary scales, and enlarging the base of non-academic or non-traditional employment opportunities for mathematics degree holders.

The AMS can take a leading role in sponsoring an open discussion of these issues among the mathematics community. As member of the Council, I would work to ensure that the AMS takes a proactive role in the future of our profession.

Keith J. Devlin, Dean, School of Science, St. Mary's College, Moraga, California

The first twenty years of my mathematical career were fairly typical. I did research, wrote papers, gave and attended research colloquia, and taught at the graduate and undergraduate level. In common with most of my colleagues at the time, I regarded that list as ordered by decreasing importance. If I were coming up through the ranks today, I would rank them all equally. Although I continue to do — and publish — research, since the mid-1980s my research focus has been on applications of mathematics to problems in information management. At the same time, my more mathematical interests have focused on educational issues, particularly public education.

I believe that it is of crucial importance, both to the future health of mathematics as a funded activity and to the educational environment of our future students, that the mathematics community does everything it can to inform the public about mathematics — its true nature and importance as well as progress in the field — and to change the largely negative attitudes toward mathematics held by so many. This requires that we make use of television, radio, newspapers, magazines, and public speaking engagements at schools, rotary clubs, etc., to spread our particular gospel.

While I think that the primary focus of the AMS should be the promotion of mathematical research and that of the MAA should be the promotion of tertiary level mathematical education, I do not view teaching and research as separate activities, and therefore I believe it is important that both kinds of activity are represented in both groups.

Given the present low level of interest in university-level mathematics education across the nation and the repeated poor performances of American schoolchildren in international comparisons, I believe that almost everyone in the mathematics community should make a concerted effort to improve the level of mathematics education.

In a chapter I wrote for the recent *NCTM Yearbook 2000*, I advocated widening the existing conception of K-12 mathematics education to include descriptive coverage of mathematics as an academic discipline, taught in a fashion more akin to history or social studies than the typical school mathematics classes, which concentrate almost exclusively on skills and techniques. I also advocated greater coverage of numerical and mathematical reasoning across the K-16 curriculum, parallel to "writing across the curriculum."

William James (Jim) Lewis, Professor and Chair, University of Nebraska-Lincoln

The primary goal of the American Mathematical Society must be to ensure the health of mathematics as an academic discipline and as a profession. Historically, the AMS has met its responsibilities through its support of meetings and publications. More recently, it appears necessary for the AMS to provide leadership for public policy that impacts mathematics, on matters of mathematics education, and on issues concerned with the status of the profession.

The AMS Council can be viewed as the part of the AMS governance structure that offers the broadest voice to the AMS membership through the elected members of the Council. (Financial governance is restricted to the Executive Committee and Board of Trustees.) If elected to the Council, I would have a forum for advocating policies I consider appropriate for the Society.

If we (the mathematical community) are to address the underrepresentation of women and minorities in our field, far more time, energy and money must be invested in developing women and minority mathematicians as

part of the next generation of mathematicians. My own department has had some success in creating opportunities for women. Part of our success is derived from having created a culture that expects our women students to succeed and is supportive of their success. If elected to the Council, I would support active AMS involvement in providing opportunities for women and minorities.

Alexander J. Nagel, University of Wisconsin, Madison

Thank you for the opportunity to make a statement for the Association for Women in Mathematics *Newsletter*. I have no experience at standing for election for a contested position, so what follows should be taken as an expression of personal point of view rather than an attempt to sway voters.

Of the three questions you pose, the most substantial is the second. "In what way can the mathematical community address the underrepresentation of women and minorities in our field?" One can argue that this issue needs to be addressed for many reasons. Underrepresentation fails to evenly distribute resources. Underrepresentation is an historical social injustice. Underrepresentation is self-perpetuating since it fails to provide role models for women and minority students. While there is truth in all of these, for me the most compelling reason for concern is that the country wastes a substantial portion of the natural mathematical ability in its population for teaching, research, and technology development when it does not equally encourage talented women and minorities to pursue mathematically related careers.

I do not believe that there are easy solutions to this problem. It begins early in the educational process, and women and minorities lose interest in mathematically related subjects at many stages of their careers. The problem in middle and high schools can surely be helped if there are enough good teachers with high standards who enjoy the support of administrators and parents. At a higher level, it is important to set and monitor policies that insure equal consideration of all qualified candidates for college, graduate school, post-doctoral positions, and teaching, research, or industrial positions.

In addition to formal rules, however, I think colleges and universities often overlook the need to provide special encouragement for women and minorities during their periods of training. This is often a difficult and

discouraging time for all students. The need for encouragement does not necessarily mean less encouragement for students from majority groups. Indeed, the need to encourage women and minorities can also provide the impetus for better mentoring for all students. It is my sense (based not on empirical evidence but rather on hearsay), that many institutions are more concerned with the number of women or minorities on the faculty than on the number of women and minorities recruited and retained as students. If we can maintain the excitement and interest of such students in mathematics, they will succeed, and as a consequence, they will form a larger portion of the pool from which new instructors and researchers will come.

Louise A. Raphael, Howard University

In my AMS statement I proposed two activities that I hope the AMS Council would consider developing. The first is a program that welcomes and informs new doctorates and non-tenured faculty about the "tools of the trade," so that they can connect with the profession. Both the AWM and Project NExT have workshops at regular math meetings which could serve as models. The second is joining other societies to build bridges in the so-called "Math Wars."

In this statement I would like to tell about my commitment to increasing the number of minority mathematicians and establishing projects which enhance the mathematical processes of students of all ages.

Since 1966 I have been a faculty member at a Historically Black College/University (HBCU). Some of my undergraduates (half of whom are women) from Howard University (HU) and Clark College (now Clark-Atlanta University) have earned graduate degrees from MIT, University of Michigan, Carnegie-Mellon and Howard. Equally impressive for me is that other of my undergraduates are elementary school teachers.

On an organizational level, in 1986-88, I was chair of a forty member Task Force on Minorities in Mathematics for the Mathematical Association of America (MAA). We wrote a report which led to the founding of the MAA's SUMMA (Strengthening Underrepresented Minority Mathematics Achievement) Office. Under the leadership of Professor William Hawkins of the University of the District of Columbia, SUMMA procured and provided seed money to hundreds of projects nationwide to enhance the mathematical knowledge of minority

students at all grade levels. (I must mention that Professor Hawkins is one of my former Howard undergraduates, who earned a Ph.D. in algebraic topology from the University of Michigan.)

The AMS has shown keen interest in the activities of the SUMMA Office, and I hope both societies will increase their joint activities with the National Association of Mathematicians.

Lastly I mention the volunteer grass roots partnership of parents, teachers, ministers in African-American churches and faculty from Howard, that I head. We work with so-called "at-risk" elementary school students in after-school day care centers associated with the African-American churches. These children enjoy working on the Singapore math books, and they seek us out as if we are "superstars."

In closing, the theme of my statement is to encourage activities and partnerships which are inclusive. Thanks for reading this far.

Hema Srinivasan, University of Missouri

AMS exists to promote mathematical research and to represent the interests of mathematicians. I believe that AMS has an important role in solving the problem of shrinking library budgets and increasing journal costs. We must strive to promote high quality while maintaining and even increasing accessibility. Nurturing mathematicians early in their career benefits both mathematics and the mathematical community. AMS meetings provide an ideal setting for this. In addition, we must effectively communicate the adventure and excitement in mathematical research to attract the best and most creative minds among the younger generation.

NOMINATING COMMITTEE

Jonathan Alperin, University of Chicago

It is an honor and an opportunity to serve on the Nominating Committee of the AMS. This body is key to keeping the Society strong and diverse.

Irwin Kra, SUNY at Stony Brook

A good place to start might be with my statement on the role of the Nominating Committee that appeared in the *Notices*:

The AMS is a creative hybrid: an elitist scholarly society combined with a professional membership organization. In its first incarnation, it serves the best interests of the discipline; in the second, the goals and aspirations of the mathematics research community. The function of the Nominating Committee is to select the most suitable candidates to nominate for the various contested leadership positions within the Society, of which the most visible is the presidency. Traditionally, the incumbents have been mathematicians of the highest achievement (of Fields Medal caliber). This tradition has served the Society well, and should continue; to be taken into account, however, that not every original thinker is also a talented spokesperson and administrator. The less visible positions (for example, Council membership) should be filled by a broad spectrum of candidates with strong research accomplishments who (as a group) also reflect the diversity of interests of the membership. An active effort must be made to expand the pool of mathematicians participating in the governance of the Society. Our efforts should insure the orderly flow of the talented into mathematics and the creation of an environment, in our universities, research institutions, industries and society as a whole, which fosters the appreciation and understanding of our discipline.

To address more general issues than just election to the Nominating Committee, it is appropriate to amend one of the above sentences by the addition of the words in bold face: *An active effort must be made to expand the pool of mathematicians from underrepresented groups participating in the governance and scientific/scholarly activities of the Society.* Many groups are currently underrepresented in the "mathematics research" community. Although the issues of fair representation, diversity and excellence sometimes present conflicting demands, we, especially this society (the AWM) and the AMS* can make a difference. Because of obvious demographics, the most dramatic increase among research mathematicians of currently underrepresented groups can come by increasing the percentage of women who enter the mathematics pipeline. Legislation alone will not accomplish this. Our task is complicated by recent trends at universities which do not present a very

* I concentrate in this note on issues on which the AMS Nominating Committee can act — if, at times, only indirectly.

promising future for aspiring academicians. The situation for young women is particularly difficult. Despite the commonly held view among young men completing doctoral studies that young women have an easier time in the job market, in reality only little has changed over the years — though the change has been in the positive direction. Studies have shown that women have a better chance of being given fair consideration when other women are among those making the decisions; this seems to apply to selection of job candidates, organizers of special sessions, speakers at meetings and undoubtedly many other decisions. A remedy involves trying to insure that all governance bodies contain appropriate and effective representation from diverse groups within the profession. As a first approximation, a moral (rather than *just* legal) policy of affirmative action must be followed: to actively search underrepresented groups for candidates, not just wait for applications, and to appoint the best and most appropriate people. The affirmative action policies adopted must be subject to historical memory and a sunshine clause. I am optimistic enough to believe that they will not be needed for my granddaughters.

Cora Sadosky, Professor and AWM President 1993–1995, Howard University

The situation of women mathematicians in the U.S. has improved greatly in the last two decades. Still most math departments have few or no tenured women (a department with forty tenured faculty is “full of women” if there are four of them!). And no Black or Latino tenured member at all.

I am on the AMS ballot as a candidate for the Nominating Committee; if elected I will be asked to put forward names of candidates for governing the different bodies of the Society. My criteria for selection will include the mathematical excellence and expected competence of the candidates to do their jobs, and also their willingness to act on the issue of marginalization of women and minorities from the profession. If elected I will strive to reach outside the usual pool of candidates, many of whom have already been in similar AMS functions, with as many suitable women and minority candidates committed to inclusiveness as I can find.

I feel it is especially important, while composing a ballot, to go beyond the prescribed “several women and

NSF-AWM TRAVEL GRANTS FOR WOMEN

The objective of the NSF-AWM Travel Grants program is to enable women to attend research conferences in their fields, thereby providing a valuable opportunity to advance their research activities and their visibility in the research community. By having more women attend such meetings, we also increase the size of the pool from which speakers at subsequent meetings may be drawn and thus address the persistent problem of the absence of women speakers at some research conferences.

Travel Grants. These grants provide full or partial support for travel and subsistence for a meeting or conference in the applicant's field of specialization. A maximum of \$1000 for domestic travel and of \$2000 for foreign travel will be applied. For foreign travel, U.S. air carriers must be used (exceptions only per federal grants regulations; prior AWM approval required).

Eligibility. These travel funds are provided by the Division of Mathematical Sciences of NSF, and the research conference must be in an area supported by DMS. For example, this includes certain areas of statistics, but excludes most areas of mathematics education and history of mathematics. Applicants must be women holding a doctorate (or equivalent experience) and having a work address in the U.S. (or home address, in the case of unemployed mathematicians). Anyone who has been awarded an AWM-NSF travel grant in the past two years or who has other sources of external funding, including *any* NSF grant, is ineligible. Partial support from the applicant's institution or from a non-governmental agency does not, however, make the applicant ineligible.

Target dates. There are three award periods per year. An applicant should send *five* copies of 1) a description of her current research and of how the proposed travel would benefit her research program, 2) her curriculum vitae, 3) a budget for the proposed travel, and 4) information about all other sources of travel funding available to the applicant along with *five* copies of her cover letter to: Travel Grant Selection Committee, Association for Women in Mathematics, 4114 Computer & Space Sciences Building, University of Maryland, College Park, MD 20742-2461. If you have questions, contact AWM by phone (301-405-7892) or email (awm@math.umd.edu). Applications via email or fax will not be accepted. The next deadlines for receipt of applications are **October 1, 2000** and February 1 and May 1, 2001.

one or two African-American or Latino" candidates to the Council. We need to break the barrier of the one-is-enough: equal access is enough. If elected I will appeal to all AWM members to help produce a pool of possible candidates — not only for the AMS Council, Board of Trustees, President and Vice Presidents, and the Nominating Committee itself, but also for the Editorial Committees, for the Joint Committees and for the representatives to other scientific societies. In the process such a pool will certainly end up including excellent non-traditional candidates for department chairs!

American universities are losing a wealth of talent by their math departments not providing a level field for women's tenure. Nowadays there are many more active women mathematicians in the U.S. making a living from teaching and doing research than ever before. Still, every year, many women worthy of tenure are rejected, after mixed reviews, mixed endorsements, and mixed internal support. They remain with the feeling that the tenure verdict was not discriminatory but reflected their individual failure. Women mathematicians think "It is just me, I am not good enough." Male mathematicians keep on being preferred, and female mathematicians deferred, because of their gender. Tenure cases, by their nature, are individual experiences, and it is easy to put the blame on oneself. In any case, who is going to be there to support you? You are alone. This should not be so.

But how is this to be changed? There are no magic answers, since what is at stake is changing people's attitudes, something that is not easy to achieve. Yet what is certain is that the situation will not get better spontaneously, should we wait long enough. Our experience at AWM has shown that every time vigilance lapses on one front, a situation that had improved in the past may worsen rapidly. There is no alternative but to act on a positive agenda, the result of a collective endeavor. Here the work of AWM, NAM, and the other organizations of peoples underrepresented in our profession may prove essential.

Audrey A. Terras, University California, San Diego

My chief goal as a member of the nominating committee would be to assure that the nominees represent all areas of our mathematical community. That means that I would attempt to find nominees that are as diverse as possible from the point of view of field, geography, ethnicity, gender, etc.

Thomas W. Tucker, Colgate University

I have been a member of the AMS for more than 30 years, but have spent most of my time in MAA activities. There is one area where these two organizations overlap and where cooperation is particularly important: the undergraduate mathematics major. One of the many roles of the AMS is to maintain a strong and visible presence for mathematics, both in the academic community and in the public at large. When recruiters to my college tell me that the only courses on a student transcript they care about are mathematics and computer science, there can be little doubt of the value placed on mathematics by business. And yet, the percentage of mathematics majors among American college graduates still hovers around 1%. There is no reason why this figure shouldn't be 5%, and the mathematics community should be ashamed that it is not. Needless to say, this means a change in mentality: that undergraduate mathematics education has more than a service role to other disciplines, that women and minorities must be courted, that very few math majors need to be prepared for graduate work in mathematics. When students are flocking to major in mathematics, when enrollments in junior-senior mathematics courses are bulging, when new positions are being added to handle the demand, then mathematics will have truly entered a Golden Age.

Steven H. Weintraub, Louisiana State University

My statement as part of the ballot information is as follows:

Nomination by the Nominating Committee is the primary method by which candidates for AMS offices are named. Thus the Nominating Committee must work well in order for AMS democracy to work well.

The membership of the AMS is a diverse lot, in many ways (gender, race, professional status, type of employment ...). Further, while scientific concerns (the publication and meetings programs) and the advancement of mathematical research remain the essential core of AMS activities, the AMS has, quite properly, expanded its scope to include many other issues (employment and other professional concerns, public awareness of mathematics, education, funding ...).

As the largest and most active society of

mathematicians in the world, the AMS is in a unique position to advance mathematicians' concerns. As a member of the Nominating Committee, I would seek out candidates who represent the broad spectrum of AMS members, and who are ready and eager to tackle the many challenges that face mathematics in general and the AMS in particular.

In my terms on the Council and on AMS committees, I have served with energy and, I hope, well. I would serve on the Nominating Committee with the same enthusiasm.

To summarize this statement, I would say that as a member of the Nominating Committee I would seek candidates who are broadly representative, who have a wide view of the scope of AMS activities, and who would do a good job.

Those who know me know that I tend to have strong opinions on a variety of subjects, and that I am not hesitant to express them. Were I a candidate for Council member, for example, I would be glad to do so here. However, as a candidate for Nominating Committee, I do not think it is proper for me to do so. Rather, it seems that as a member of the Nominating Committee, my charge is not to act to advance my views, but rather, to insure that the AMS membership has a real choice among good candidates. I would not pretend that candidates' views would have no bearing on my judgment of their fitness for office, but nevertheless I think that, if

elected, my job would be one where fairness, rather than advocacy, is what is called for most on my part.

I have served the AMS in a number of capacities, undeniably with energy, and I hope with good judgment. The affairs of mathematics and mathematicians in general, and the Society in particular, are something I deeply care about, and I would welcome the opportunity to serve again.

EDITORIAL BOARDS COMMITTEE:

Tony F. Chan, UCLA

I am honored, as a candidate for the AMS election, to have the opportunity to address the readers of the *AWM Newsletter*.

This year (2000) is a special year for mathematics. It has been designated the World Mathematical Year by UNESCO. 100 years ago, Hilbert presented his famous 23 problems which had a great impact on the course of mathematical research over the last century. This year, there are several publications and conferences that try to set forth the mathematical challenges for the next century. I am involved with one of these (as chair of the local organizing committee): the AMS "Mathematical Challenges of the 21 Century" to be held at UCLA from August 6–12. The list of the 31 plenary speakers and the titles of their lectures reflect how much mathematics has progressed over the last century and also what the focus

CALL FOR NOMINATIONS: ALICE T. SCHAFER MATHEMATICS PRIZE

The Executive Committee of the Association for Women in Mathematics calls for nominations for the Alice T. Schafer Mathematics Prize to be awarded to an undergraduate woman for excellence in mathematics. All members of the mathematical community are invited to submit nominations for the Prize. The nominee may be at any level in her undergraduate career. She must either be a U.S. citizen or have a school address in the U.S. The eleventh annual Schafer Prize will be awarded at the Joint Prize Session at the Joint Mathematics Meetings in New Orleans, Louisiana, January 10–13, 2001.

The letter of nomination should include, but is not limited to, an evaluation of the nominee on the following criteria: quality of performance in mathematics courses and special programs, demonstration of real interest in mathematics, ability for independent work in mathematics, and performance in mathematical competitions at the local or national level, if any.

With letter of nomination, please include a copy of transcripts and indicate undergraduate level. Any additional supporting materials (e.g., reports from summer work using math, copies of talks given by members of student chapters, recommendation letters from professors, colleagues, etc.) should be enclosed with the nomination. Send *five* complete copies of nominations for this award to: The Alice T. Schafer Award Selection Committee, Association for Women in Mathematics, 4114 Computer & Space Sciences Building, University of Maryland, College Park, MD 20742-2461. Nominations must be received by **October 1, 2000**. If you have questions, phone 301-405-7892 or email awm@math.umd.edu. Nominations via email or fax will not be accepted.

may be for the next one. About half of the talks can be classified as "fundamental" mathematics — the traditional core of our discipline. What is more striking is that the other half can be classified as "interdisciplinary" mathematics, with topics ranging from computational biology, ecology, quantum computing, fluid dynamics, and physics (of course). I believe that this balance between these two aspects is the right one for the future of our discipline, and one that I hope AMS will adopt. It'll help broaden the reach of mathematics, as well as bring interesting and challenging problems from other disciplines. At the same time, it'll bring more talented young people into our field, who are excited by the many rewarding opportunities that a career in mathematics can bring. This expanded and outreaching nature of our field should also help attract more women and minorities into a career in mathematics, especially if augmented by recognizing outstanding individuals who can serve as role models for these underrepresented groups. If elected to the Editorial Board Committee, I'll make an effort to help broaden the scope of the AMS journals by nominating individuals who share the vision outlined above.

Jane Gilman, Rutgers University

I was asked to respond to three questions.

On the role of the AMS in the 21st Century: It is hard to predict the important issues of the twenty-first century; but whatever they turn out to be, they will be best addressed by an educated population. The global role of the mathematical community is to help people acquire

the expertise necessary to make sensible decisions on scientific issues.

On women and minorities: The mathematical community has responded positively to the underrepresentation of women and minorities, and it should continue along the path it has started. There is no panacea; consistent effort is necessary.

On the Editorial Board Committee within the AMS: The role of the AMS is primarily to foster the development of research mathematics at the university level. The Editorial Board Committee must of course look for editors with broad and deep mathematical backgrounds. There are good mathematicians everywhere these days, and the Committee must be sure to look beyond the institutions which come immediately to mind.

SLOAN RESEARCH FELLOWSHIPS

Nominations for candidates for Sloan Research Fellowships are due by **September 15, 2000**. Candidates must be members of the regular faculty at a college or university in the United States or Canada and must be at an early stage of their research careers. For information contact: Sloan Research Fellowships, Alfred P. Sloan Foundation, 630 Fifth Avenue – Suite 2550, New York, NY 10111; email: gassman@sloan.org; url: <http://www.sloan.org>.

CALL FOR NOMINATIONS: THE 2001 NOETHER LECTURE

The Association for Women in Mathematics established the Emmy Noether Lectures to honor women who have made fundamental and sustained contributions to the mathematical sciences. This one-hour expository lecture is presented at the Joint Mathematics Meetings each January. Emmy Noether was one of the great mathematicians of her time, someone who worked and struggled for what she loved and believed in. Her life and work remain a tremendous inspiration.

The mathematicians who have given the Noether lectures in the past are: Jessie MacWilliams, Olga Taussky Todd, Julia Robinson, Cathleen Morawetz, Mary Ellen Rudin, Jane Cronin Scanlon, Yvonne Choquet-Bruhat, Joan Birman, Karen Uhlenbeck, Mary Wheeler, Bhama Srinivasan, Alexandra Bellow, Nancy Kopell, Linda Keen, Lesley Sibner, Olga Ladyzhenskaya, Judith Sally, Olga Oleinik, Linda Rothschild, Dusa McDuff, Krystyna Kuperberg, and Margaret Wright.

The letter of nomination should include a one page outline of the nominee's contribution to mathematics, giving four of her most important papers and other relevant information. Five copies of nominations should be sent by **October 15, 2000** to: The Noether Lecture Committee, Association for Women in Mathematics, 4114 Computer & Space Sciences Building, University of Maryland, College Park, MD 20742-2461; phone: 301-405-7892; email: awm@math.umd.edu.

AWM WORKSHOP FOR WOMEN GRADUATE STUDENTS AND RECENT PH.D.'S: FOCUS ON RESEARCH & CAREER ADVICE

Thanks to the support of the Office of Naval Research and the National Science Foundation, the Association for Women in Mathematics hosted a workshop for women graduate students and recent Ph.D. recipients to showcase the research of the participants and to discuss issues affecting success in their careers. In conjunction with the 2000 Society of Industrial and Applied Mathematicians Annual Meeting, the AWM workshop took place in Rio Grande, Puerto Rico, July 9–11, 2000.

To kick off the workshop, AWM hosted an informal Sunday Night Dinner Banquet attended by Gilbert Strang, SIAM President; selected workshop participants (fourteen graduate students and seven recent doctoral recipients); volunteer mentors; several AWM members and other guests. In discussion groups following the dinner, the young women participants raised and discussed issues that concerned them including selecting academia over industry or a research laboratory, opting for a postdoc versus a tenure track position, balancing competing offers, and juggling research, teaching and a family. Discussions of the issues raised continued throughout the workshop.

The workshop was comprised of three minisymposia and a graduate student poster session. In the first minisymposium, "Launching a Career," four professional mathematicians/computer scientists discussed their career experiences and offered suggestions on possible career alternatives. The diversity of the speakers' career paths gave the participants a broad perspective on the options available to them. Charles Romine (Oak Ridge National Laboratory) talked about what it is like to work at a national laboratory — the research requirements and collaborative opportunities, adjunct professor possibilities, and the extraordinary facilities — in his talk on "DOE Labs: An Energetic Career in Mathematics." In her talk on "The Possibility of Having Careers in Both Industry and Academia — Q: Sequentially or in Parallel," Teresa Edwards (Spelman College) emphasized the importance of recognizing opportunities, and she spoke

of her transition from corporate America to academia. Deborah Lockhart (National Science Foundation) in her talk "From Academe to Government: An Unexpected Opportunity" gave details on her decision to leave academe and join the NSF, and she informed the participants about funding opportunities for which they might apply. Mary Wheeler (University of Texas, Austin) shared her experiences in "Working in a Multidisciplinary Environment," which included her experiences as the director of the Center for Subsurface Modeling.

"Biological and Physical Modeling Applications" was the focus of the second minisymposium. Three recent Ph.D. participants presented talks on their research. Katharine Gurski, a Postdoc/Staff Scientist with the Universities Space Research Association at the Center of Excellence in Space Data and Information Sciences located at NASA Goddard Space Flight Center, in a talk entitled "Modeling the Interaction of the Solar Wind with the Earth's Magnetosphere" presented the results of two solar magnetohydrodynamic problems. Eunok Jung, a Postdoc at Oak Ridge National Laboratory, motivated her research on "Simulations of Flow Driven by Pumping without Valves Using the Immersed Boundary Method" with the application of cardiopulmonary resuscitation (CPR). In her talk, "Diseases with Chronic Stage in a Population with Varying Size," Maia Martcheva, an Assistant Director of Freshman Mathematics and Instructor at Polytechnic University, presented an epidemiological model of ordinary differential equations representing a hepatitis C infection. Also, in this minisymposium, a bonus impromptu discussion was led by Tamara Kolda (Sandia National Laboratories) on Job Searches. Participants received and offered valuable information including places to look for job announcements, how to structure and what to include on their resumes, and much more.

Four of the recent Ph.D. participants spoke on a variety of topics related to partial differential equations during the third minisymposium on PDEs and Applications. Jeanne Atwell of Virginia Tech spoke about closed loop control and feedback estimates in her talk on "Interactions of Galerkin-Least-Squares Stabilization and Control Design for Burgers' Equation." Maya Chhetri, an

Teresa Edwards, Spelman College, and Suzanne Lenhart, University of Tennessee

Assistant Professor at the University of North Carolina at Greensboro, presented a survey of some recent theoretical results for certain elliptic PDE systems, including her own results, in her talk "Recent Developments on Semipositone Systems." Colleen M. Kirk, an Assistant Professor at Montclair State University, presented findings from her investigation of various model problems of reaction-diffusion in which the thermal stimulation arises from spatially localized heat sources in her talk, "Blow-up in a Reactive-Diffusive Medium with Spatially Localized and Moving Heat Sources." In her talk, "Cylindrical Flame Dynamics," Deborah Stevens, a Postdoctoral Appointee at Argonne National Laboratory, presented her results showing spatiotemporal patterns in premixed gaseous flames confined between coaxial cylinders.

Culminating the workshop and offering a further glimpse of the future research potential of the participants, the graduate students presented their research in a poster session. The graduate student presenters were:

Kirsten J. Boyd, Stanford University

"Wavelet Homogenization Methods for Partial Differential Equations"

Cammey E. Cole, North Carolina State University
"A Mathematical Model of Benzene Metabolism in Vivo"

Ann Davis, California State University at Northridge
"Potential Minimizing Configurations of Points on a Sphere"

Urmi Ghosh-Dastidar, New Jersey Institute of Technology
"Inverse Problems in Underwater Acoustics in the Presence of Internal Waves"

Yadira Vellon Gilchrest, Naval Undersea Warfare Center and University of Central Florida
"Beam Spreading of Higher Order Gaussian Modes Propagating through the Atmosphere"

Kimber Gross, University of Houston
"Modeling Effect of Interleukin-2's Role in T Cell Homeostasis"

Leona Harris, North Carolina State University
"A Model for Hormonal Regulation of the Menstrual Cycle"

Cristina Negoita, Arizona State University
"Improved Parametric Images for Brain Positron Emission Tomography Studies Using Ridge

Regression and Multi Grid Methods"

Shobha Oruganti, Mississippi State University
"Nonexistence of Nonnegative Solutions for a Class of Semilinear Elliptic Systems"

Sherry E. Scott, University of Maryland, College Park
"Characterizing Second Order Properties of Second Order Random Processes via Wavelet Transforms"

Linda B. Smolka, Pennsylvania State University
"Non-Newtonian Effects on the Motion of Falling Viscous Drops"

Theresa A. Strei, University of Nebraska, Lincoln
"Nonlinear Wave Equations on the Two-Dimensional Sphere"

Kimberly S. Weems, University of Maryland, College Park
"The Effect of Mixing Distribution Misspecification in Poisson Mixed Models"

Shree Y. Whitaker, National Institute of Environmental Health Sciences and North Carolina State University
"Development of a Biologically-Based Controlled Growth and Differentiation Model for Developmental Toxicology"

Volunteer mentors served a special function in the workshop. They listened to the participants give their research talks or discuss their posters. They offered advice about issues of concern, compliments and constructive remarks for improvement. Volunteer mentors for the workshop included Teresa Edwards (Co-organizer, Spelman College), Denise Kirschner (University of Michigan), Tamara Kolda (Sandia National Laboratories), Nancy Kopell (Boston University), Andrea Lawrence (Spelman College), Suzanne Lenhart (Organizer, University of Tennessee), Dawn A. Lott (New Jersey Institute of Technology), Maeve McCarthy (Murray State University), Joyce McLaughlin (Rensselaer Polytechnic Institute), and Suelly Oliveira (University of Iowa).

The organizers would like to thank the participants and the mentors for their positive contributions to the workshop. We also would like to thank the speakers in the opening minisymposium for their contributions to the workshop. We want to express our appreciation to SIAM for the opportunity for our workshop to be an integral part of their annual meeting. We would also like to express our gratitude to ONR and NSF for their support of this workshop.

ATTENTION APPLIED MATHEMATICIANS AWM WORKSHOP FOR WOMEN GRADUATE STUDENTS AND RECENT PH.D.'S

supported by the Office of Naval Research, the National Science Foundation,
and the Association for Women in Mathematics

Over the past twelve years, the Association for Women in Mathematics has held a series of workshops for women graduate students and recent Ph.D.'s in conjunction with major mathematics meetings.

WHEN: An AWM WORKSHOP is scheduled to be held July 8–10, 2001 (*pending final funding approval*), with an introductory dinner on July 8, in conjunction with the 2001 Society for Industrial and Applied Mathematics (SIAM) Annual Meeting (July 8–13, 2001) at the Town and Country Hotel in San Diego, California.

FORMAT: The workshop will consist of a poster session by graduate students and two or three minisymposia featuring selected recent Ph.D.'s, plus an informational minisymposium directed at starting a career. The graduate student poster sessions will include all areas of research, but each minisymposium for recent Ph.D.'s will have a definite focus selected from the research areas of Mathematical Biology, Modeling, Control, Optimization, Scientific Computing, and PDEs and Applications. AWM will offer funding for travel and two days subsistence for up to 20 participants. Departments are urged to help graduate students and recent Ph.D.'s obtain supplementary institutional support to attend the Workshop and the associated meeting. All mathematicians (female and male) are invited to attend the entire program.

DISCUSSION GROUP LEADERS: We also seek volunteers to lead discussion groups and to act as mentors for workshop participants. If you are interested in volunteering, please contact the AWM office.

ELIGIBILITY: To be eligible for selection and funding, *graduate students* must have begun work on a thesis problem. Applications should include a cover letter, a summary of their work (1–2 pages), a title of the proposed poster, a curriculum vitae, and a supporting letter of recommendation from a faculty member or research mathematician. Applications from *recent Ph.D.'s* should include a cover letter, a title and abstract (75 words or less) of the proposed talk, summary of their work (1–2 pages), and curriculum vitae; a letter of recommendation may also be included. Letters of support are encouraged. A recent Ph.D. should have received her Ph.D. within approximately the last five years, whether or not she currently holds a postdoctoral or other academic or non-academic position. All non-U.S. citizen applicants must have a current U.S. address. All selected and funded participants are invited and strongly encouraged to attend the full AWM two-day program. Those individuals selected will be notified by the AWM Office and will need to submit a title and abstract (75 words or less) with name, affiliation, address, etc. by mid-February to SIAM for the meeting program; AWM will provide instructions when notified. For some advice on the application process from some of the conference organizers see the AWM website.

Send *five* complete copies of the application materials (including the cover letter) to:

Workshop Selection Committee
Association for Women in Mathematics
4114 Computer & Space Sciences Building
University of Maryland
College Park, Maryland 20742-2461

Phone: 301-405-7892

Email: awm@math.umd.edu URL: <http://www.awm-math.org>

APPLICATION DEADLINE: Applications must be received by **January 23, 2001**.
Applications via email or fax will not be accepted.

WHAT I READ ON MY SUMMER VACATION

Joan L. Richards, **Angles of Reflection: Logic and a Mother's Love**, W. H. Freeman, New York, 2000. 282pp. ISBN 0-7167-3831-7 (cloth), \$23.95.

Reviewed by: Marge Murray, Book Review Editor, Department of Mathematics, Virginia Tech, Blacksburg VA 24061-0123; murray@calvin.math.vt.edu

Joan L. Richards is an historian of mathematics at Brown University whose research specialty is the mathematics of Victorian England. She is also married and the mother of two sons. Her remarkable book, *Angles of Reflection*, is an account of two particularly difficult years in her personal and professional life, during which the claims of love and the responsibilities of motherhood came into direct conflict with her academic and scholarly aspirations. This book stands as a testament to those years, and as her (not entirely successful) attempt to reconcile the conflict.

In the fall of 1994, Joan Richards embarked upon what promised to be an exciting two-year sabbatical from her teaching responsibilities at Brown University, spending one year as a fellow at the Dibner Institute at Harvard and a second year at the *Wissenschaftskolleg* in Berlin. During these fellowship years, her goal was to write a book about the life and work of Augustus DeMorgan, the Victorian mathematician whose lasting contributions to logic and probability would shape the thinking of generations of mathematicians and scientists to come.

The fellowships came at an auspicious moment. As the mother of two sons, Richards was long accustomed to juggling the responsibilities of work and family. She writes:

Somehow I had managed to teach and finish my dissertation after Brady, my first child, was born. I finished my first book when Ned, my second child, was still in diapers. But my second book had not followed as expected. Raising two children had proved itself to be just too distracting to allow me to think through a whole new project. Though I scheduled a full workload around them ... I could not muster the kind of total concentration required to write. Six years into my tenure, my department turned down my promotion. I could not refute their objection that I had not written a second book. What I could do was recognize that at nine and

fourteen the boys were no longer as demanding as they had been before, and it was high time to concentrate on my research and writing. (p. 3)

Thus Richards embarked upon her sabbatical with every expectation that it would offer her the precious time and space she needed to explore the life and thought of DeMorgan, to get a new book project well underway, and in so doing to revitalize her relationship to research.

As John Lennon once said, "Life is what happens while you're making other plans," and this seems to be the dominant motif of Richards' entire book. In the fall of 1994, Richards established a comfortable routine, at home with the family in Providence, Rhode Island by night and at work in Cambridge, Massachusetts by day. She had just begun to settle in to her work on DeMorgan when her younger son, Ned, suffered a grand mal seizure in the middle of an otherwise normal day at school. In the aftermath of her son's seizure, Richards and her family endured an anxious period of vigilance and worry, with endless trips to doctors and clinics, which finally culminated in successful neurosurgery to remove a tumor from Ned's brain the following spring. During these difficult months, Richards maintained a tenuous connection to her professional life in Cambridge, but ultimately realized that her concentration had been broken and her heart and mind belonged with her son and her family in Providence.

As Richards reflects upon these early months of her son's illness, she finds curious parallels between her own life and that of Augustus DeMorgan and his wife, Sophia. The DeMorgans had seven children, and as one might expect in nineteenth-century England, responsibility for the care and nurturance of the children fell almost entirely to Sophia DeMorgan. As Richards became more deeply involved in the medical crisis of her own son, she found that her sympathies lay much more with Sophia than with Augustus, whose life and work were almost totally insulated from the day-to-day lives of his wife and children.

In the early pages of her book, Richards also reflects upon the factors which first attracted her to the study of mathematics and its history. As a young woman, Richards found refuge from the vicissitudes of adolescence by studying mathematics:

Throughout junior high school, as I struggled to fit the loud, clumsy, fast-growing Joan that I was into the social spaces allotted to young women, mathematics sustained me. In the midst of efforts to maintain my dignity through school dances, clothes shopping, and hair dressing, mathematics provided peace. It was like a daily miracle to hear my classmates read out their answers to problems and find that we had come to the same conclusion. When the rest of life seemed an unending struggle to find the right thing to say, the right place to be, mathematics class was a safe haven. (p. 36)

Mathematics and physics — particularly the work of Isaac Newton — offered Richards the kind of purity of thought and experience that many people seek through religion. The attraction of mathematics, for Richards as for many others of us who enter the profession, was its clarity, its certainty, its purity, and its peace.

Yet, faced with her son Ned's health crisis, Richards found herself chafing against the very purity and insularity that first attracted her to mathematics. She came to realize, through reflection upon the lives of Newton (who never married and had no children) and the DeMorgans, that academic life in general, and mathematics in particular, have long been uncomfortably insulated from the messiness, uncertainty, and passion of "real life." In the aftermath of her son's successful surgery, Richards' faith in the purity and safety of mathematics and academia were clearly shaken. But with the crisis past, she once again looked to her academic future, and in particular to the coming year 1995–96, which she would spend with her sons in Berlin.

Richards began her year in Berlin with high hopes and a sense of adventure. Her plan was to spend the year in Germany with her two sons; her husband, Rick, would spend the first month with them in Germany and would return for a series of extended visits during the year. Indeed, the first month went very smoothly, as her sons settled into a sense of routine in this strange and fascinating city and Richards began to settle into a comfortable niche at the *Wissenschaftskolleg*. Once again, she began to contemplate the work of Newton and Leibniz, the logic and probability of DeMorgan. Once again, her concentration was shattered by a crisis involving her son, Ned.

During her first month in Berlin, even before Rick's departure for the States, Ned suffered a playground fall at his school and broke his left arm. At first, especially

when compared to the neurosurgery of the previous year, Ned's injury seemed like a minor annoyance. But as the break began to heal, Ned suffered severe pain and failed to regain normal mobility in his arm. By this time her husband had gone back home, leaving Richards to negotiate the frustrating German health care system on her own. Thus began a months-long, harrowing encounter with hospitals, clinics, physicians, surgeons, nurses, and physical therapists, during which Richards lobbied relentlessly for the health and welfare of her son, struggling to make herself understood in a language (German) whose nuances she could not fully understand. In the end, Ned required three surgical operations and intensive physical therapy before he began to regain normal use of his arm. As Richards devoted herself ever more fully to her son's care and healing, she once again found herself alienated from the insular world of academia and unable to reconcile the competing demands of the two.

By the end of her fellowship year in Berlin, Richards found herself increasingly alienated from the purity and insularity of academic and mathematical life. Reflecting on the work of Augustus DeMorgan and his colleagues toward the end of her fellowship year, she writes:

I saw them engaged in a powerful purifying project, trying always to separate the necessary and absolutely true from the contingent and the relative. I had long been intrigued by their effort, but my years with Ned had shown me the dark side of their drive toward purity. Their mathematical work was magnificent, but they had only been able to sustain it by disparaging the relative and consigning it to their servants and their wives. (p. 237)

Attending seminars during her final months at the *Wissenschaftskolleg* in Berlin, Richards felt an increasing restlessness. Listening to clean, precise academic discussions of science and mathematics, she found herself asking, "What does this have to do with *anything*?" (p. 224)

In the closing chapters of the book, Richards recounts her final days in Berlin, her return to the States, the resumption of "normal" life, and her son's gradual return to the typical pursuits of a growing preadolescent boy. It is clear that the years of her fellowship and of Ned's illness and injury have left an indelible mark on her approach to academic and scholarly work. Through this book, Richards has begun to make her scholarly work more personal, to bring to her academic work a sense of the richness, complexity, and complication of life.

Reading this book, I am also profoundly aware of just how clearly it is a *woman's* story. Indeed, at times while reading it, I found myself feeling angry at Rick for his absence from Berlin, angry that Joan had to face the intimidating German health care system alone, angry at an academic system which presumes that children should be neither seen nor heard, angry that mathematics so often comes across as a discipline lacking in both heart and soul. I salute Joan Richards' courage in writing about her experience and look forward to reading her next book. Her sabbatical has clearly transformed her approach to scholarship, and I am eager to see what happens at the next stage in her personal transformation.

CAREER QUESTIONNAIRE

EWM (European Women in Mathematics) are interested in the careers of mathematicians. In particular, we are keen to establish whether mathematicians' careers follow a common path or whether there is no general pattern. To this aim we would be very grateful if you could fill in the following questionnaire and return it to Dr. Rachel Camina by **December 31, 2000**, either via email: R.D.Camina@dpmms.cam.ac.uk or by post: DPMMS Centre for Mathematical Sciences, Wilberforce Road, Cambridge CB3 0WB, UK.

We are interested in responses from both male and female mathematicians and would be grateful if you could pass this questionnaire on to work colleagues.

Thank you in advance, Rachel Camina.

Questionnaire

- 1) Are you female or male?
- 2) How old are you?
- 3) (a) How many years is it since you completed your Ph.D.?
- (b) Where did you complete your Ph.D.?
- 4) When did you publish your first mathematical paper?
- 5) What is your current position? Is it temporary or

permanent, part-time or full-time?

6) (a) How many children do you have? If none go to question 7.

(b) Did you take maternity/paternity leave for each child? If so, for how long?

(c) At what age did you have your first child?

7) (a) Have you worked part-time?

(b) If so for how long?

(c) When was this?

8) (a) At what age did you write the published (accepted) paper of which you are most proud?

(b) To date, when has been your most productive mathematical period?

(c) In your opinion, what were the reasons for this high productivity?

(d) Did the work on paper (a) occur during period (b)?

9) (a) Have you had any gaps in your publishing mathematical career?

(b) If so, how long were these gaps and when were they?

(c) In your opinion, what were the reasons for these gaps?

10) Comments:

THANKS EXXONMOBIL!

As Jean mentioned in her President's Report, for the year 2000 the ExxonMobil Educational Foundation has again awarded AWM \$5000 in general support of its programs and activities. Many thanks!!

EDUCATION COLUMN

Educational Reform: Whose Calendar?

The month of June brought me two notable experiences on the education front. Each in its own way was interesting and informative and fitted neatly into an existing slot in my scheme of things. It was only after the second ended that I began to feel a resonance between them, and it has since been growing and haunting me.

The first experience was the reading of *The Teaching Gap* by Stigler and Hiebert. In it they use results of the TIMSS (Third International Math and Science Study) to compare the teaching of mathematics at the pre-university level in Japan, Germany and the United States. They then go on to discuss how improvements in teaching do and don't occur. In particular, they discuss the format under which Japan has fundamentally altered its mathematics education over the past couple of decades, and the mechanisms which are in place to permit continued improvement.

For me, this reading was a positive experience, because what motivated my reading was that one of our local school districts is planning to set up a model based on Japan's, and I am enthusiastic about their efforts and hope to be involved in them at some level. The paragraphs that most specifically struck me, though, were a discussion of a recurrent theme in U.S. education: someone develops a theory and persuades a school system, sometimes quite a large school system, to try it out. With fanfare and great *éclat* the theory is adopted. Great happiness ensues — for a few months. Then the complaints begin. There is no universal improvement in standardized test scores. The complaints gather force until, to the tune of great righteous indignation over this waste of taxpayers' money, the theory is rejected. The process not only does not take into account the issue of the time required for change, it frequently does not include any verification that the theory has in fact been implemented at the classroom level. But the rejection is absolute.

My second experience came later in the month when I had the privilege and pleasure of assisting in a summer

institute for teachers. Thanks to a National Science Foundation grant a group of us from the University of Washington and six nearby school districts have a pair of projects to work with K-12 teachers in those districts. At the elementary level, that work is centered around a series of seminars entitled Developing Mathematical Ideas (DMI, for short). The central philosophy of the seminars is that the ideal mode of teaching is to listen to students well enough to understand their ideas and conceptions and misconceptions, and then use that knowledge to shape questions and lessons and activities so as to guide them towards the chosen mathematical goals. If you think that sounds easy, think again.

Our structure for using the DMI seminars is the classic pyramid. Two of our school district coordinators who are among the originators of the DMI materials first taught a small batch of teachers, and then a larger batch with the originals as apprentices. Now the larger batch, who hail from all six of the project's school districts, are preparing to go and run seminars for local leaders within their own districts, whom they will then help to run seminars for more teachers. Many, many more teachers.

The June Institute was an intensive siege of preparing teachers for the next level of responsibility. One thing that entails is developing a confident conviction that it is worthwhile to dive in and deal with the mathematics behind the standard algorithms. That's a pretty heavy demand to make of someone with a solid background of "Yours not to reason why — just invert and multiply!" (no, I didn't make that up, but I wish I had!). So I was particularly impressed with the fact that even at 2:00 on a non-air-conditioned afternoon I saw no one whose response to the challenge to produce a diagram making sense of $5/6$ divided by $2/3$ was "I don't get it. Just leave me alone." Plenty of "I don't get it's, mind you, but the follow-up was "You don't either? OK, let's see what we can do with it." Nor was this an isolated instance — it characterized entirely the zest with which these teachers attacked every aspect of the learning opportunities offered them. It was very exciting. There's just one disturbing feature to the situation: it's terribly easy, in the excitement of seeing something that good, to telescope the calendar, or pay lip service only to the time element involved. Even the teachers at this Institute are only starting to make changes in their own classrooms. It will be well over a year before this carefully supported exponential growth process begins to reach an appreciable percentage of the vast number of elementary teachers in

by Column Editor Ginger Warfield, Department of Mathematics, University of Washington, Seattle, WA 98195;
warfield@math.washington.edu

the six districts in question, after which they will begin to commence the enriching but highly challenging process of classroom change. As a project, we are very conscious of the implications of that time element. A portion of the Institute was devoted to leadership, not only the direct kind involving leading the DMI seminars, but the indirect and far subtler kinds through which the rest of the community — fellow teachers, parents, administrators and interested bystanders — can be induced, enticed, persuaded, cajoled, or otherwise influenced to understand and appreciate the goals and means of this manner of teaching. On the other hand, as Stigler and Hiebert's book makes clear, work from within is not enough to ensure the success of any reform effort. If one has the good fortune to be dealing with particularly enlightened school districts as (at least until the next administrative turnover) we seem to be, then all may be well. But reform must not depend on that kind of good fortune. And that is where the academic community has a responsibility. We can't all judge every new idea —

heaven forfend that we should try! — but we have a voice. Politicians and voters, who make an alarming number of educational decisions in this country, at least occasionally listen to that voice. With it we need to be saying, loudly and emphatically, "*Wait! Choose what you will try and then give it enough time!*" We might gain a few minutes, anyway!

CALL FOR WEB VOLUNTEERS!

To reiterate Jean's request in the President's Report: our hard-working Web Editor, Tammy Kolda, could use more help with our ever-growing website. Email her at awm-webmaster@awm-math.org if you're interested in participating.

NSF-AWM MENTORING TRAVEL GRANTS FOR WOMEN

The objective of the NSF-AWM Mentoring Travel Grants is to help junior women to develop a long-term working and mentoring relationship with a senior mathematician. This relationship should help the junior mathematician to establish her research program and eventually receive tenure. AWM expects to award up to 5–6 grants, in amounts of up to \$4000 each. Each grant will fund travel, subsistence, and other required expenses for an untenured woman mathematician to travel to an institute or a department to do research with a specified individual for one month. Any unexpended funds may be used for further travel to work with the same individual during the following year. (Applicants for mentoring travel grants may in exceptional cases receive up to three such grants throughout their careers, possibly in successive years; each such grant would require a new proposal and would go through the usual competition.) For foreign travel, U.S. air carriers must be used (exceptions only per federal grant regulations; prior AWM approval required).

Eligibility. Applicants must be women holding a doctorate or equivalent experience and with a work address in the U.S. (or home address if unemployed). The applicant's research may be in any field which is funded by the Division of Mathematical Sciences of the National Science Foundation.

Each applicant should submit *five copies* of each of the following: 1) a cover letter; 2) a curriculum vita; 3) a research proposal, approximately five pages in length, which specifies why the proposed travel would be particularly beneficial; 4) a supporting letter from the proposed mentor (who must promise to be available at the time of the proposed travel and may be either a man or a woman), together with the curriculum vita of the proposed mentor; 5) an approximate budget; and 6) information about other sources of funding available to the applicant.

A final report will be required from each awardee. All awards will be determined on a competitive basis by a selection panel consisting of distinguished mathematicians appointed by the AWM.

Send *five* complete copies of the application materials (including the cover letter) to: Mentoring Travel Grant Selection Committee, Association for Women in Mathematics, 4114 Computer & Space Sciences Building, University of Maryland, College Park, MD 20742-2461. If you have questions, contact AWM by phone (301-405-7892) or email (awm@math.umd.edu). Applications via email or fax will not be accepted. The deadline for receipt of applications is **February 1, 2001**.

NEWS FROM THE AWM WEB FORUMS

The AWM Web forums located at <http://www.awm-math.org/forums.html> are going strong. We have four separate forums: "General Discussion," "Tenured Women," "Math Competitions" and "Choices." In July the "AWM in the 1990s" forum was retired, but it has been archived in its entirety on the forum page. In particular, one posting has a long list of references regarding teaching evaluations and gender disparity.

The newest forum has this topic: "Choices: Why do women in mathematics make the choices that they make? Some fields of study seem to attract more women than others. What forces shape these patterns?" Within the first week two mathematicians posted their personal stories. We also hope to find some statistics indicating what fields are popular with women. It should be a fun topic for everyone.

On a more serious note, the "General Discussion" forum had an anonymous complaint entitled "Displeasure with a Crude Joke." It concerned an incident that occurred at a conference, and the conference organizers were notified. They immediately dealt with the situation and posted a response which satisfied the anonymous poster. There were a flurry of letters, some posted, some written personally to me concerning the appropriateness of an anonymous complaint. There was also an

interesting anecdote posted regarding another conference and the use of restrooms.

The "General Discussion" forum has also attracted postings from students studying women in math and from a college student looking for other female math and computer science students in California. Anyone with further information about these topics is encouraged to post a reply.

The "Math Competitions" forum has attracted a number of personal stories about math competitions as well as experiences with summer math camps. Anyone involved with organizing such a camp or competition is encouraged to ask their young participants to post their ideas. So far, the youngest person to post regarding this topic is a graduate student.

Finally, the "Tenured Women" forum concerning "How to Increase the Number of Tenured Women in Mathematics" has had postings about "Women Speakers Lists" and "APS Climate for Women Site Visits". Both of these programs have been helpful to women in physics and could be imitated by the AWM. There was also a posting suggesting a possible way to find women in math with the currently available lists provided by the AMS. So far there has only been one personal story told by a woman who left academia, and more such stories are welcome. Postings by tenured women with advice for untenured women are also encouraged.

If anyone has trouble accessing or posting to the web forums, please let me know. I can always post a message on someone's behalf. The web forum email address is: awm-forums@awm-math.org.

*Christina Sormani, Lehman College, C.U.N.Y.,
sormani@comet.lehman.cuny.edu*

CALL FOR NOMINATIONS: LOUISE HAY AWARD

The Executive Committee of the Association for Women in Mathematics has established the Louise Hay Award for Contributions to Mathematics Education, to be awarded annually to a woman at the Joint Prize Session at the Joint Mathematics Meetings in January. The purpose of this award is to recognize outstanding achievements in any area of mathematics education, to be interpreted in the broadest possible sense.

The nomination documents should include: a one to three page letter of nomination highlighting the exceptional contributions of the candidate to be recognized, a curriculum vitae of the candidate not to exceed three pages, and three letters supporting the nomination. It is strongly recommended that the letters represent a range of constituents affected by the nominee's work. Five complete copies of nomination materials for this award should be sent to: The Hay Award Selection Committee, Association for Women in Mathematics, 4114 Computer & Space Sciences Building, University of Maryland, College Park, MD 20742-2461. Nominations must be received by **October 1, 2000**. For more information, phone (301) 405-7892 or email awm@math.umd.edu. Nominations via email or fax will not be accepted.

AWM WORKSHOP FOR WOMEN GRADUATE STUDENTS AND RECENT PH.D.'S

supported by the Office of Naval Research, the National Science Foundation,
and the Association for Women in Mathematics

Over the past twelve years, the Association for Women in Mathematics has held a series of workshops for women graduate students and recent Ph.D.'s in conjunction with major mathematics meetings.

WHEN: The next AWM Workshop to be held in conjunction with the annual Joint Mathematics Meetings will be in New Orleans, Louisiana, January 10–13, 2001 (*pending final funding approval*). The Workshop will be held Saturday, January 13, 2001 with an introductory dinner and discussion group on Friday evening, January 12.

FORMAT: Twenty women will be selected in advance of the workshop to present their work; the selected graduate students will present posters and the recent Ph.D.'s will give 20-minute talks. AWM will offer funding for travel and two days subsistence for the selected participants. The workshop will also include a panel discussion on issues of career development, a luncheon and a dinner with a discussion period. Participants will have the opportunity to meet with other women mathematicians at all stages of their careers. All mathematicians (female and male) are invited to attend the program. Departments are urged to help graduate students and recent Ph.D.'s who do not receive funding to obtain some institutional support to attend the workshop presentations and the associated meetings.

MENTORS: We also seek volunteers to lead discussion groups and to act as mentors for workshop participants. If you are interested in volunteering, please contact the AWM office.

ELIGIBILITY: Applications are welcome from graduate students who have made substantial progress towards their theses and from women who have received their Ph.D.'s within approximately the last five years (whether or not they currently hold a postdoctoral or other academic position). Women with grants or other sources of support are welcome to apply. All non-U.S. citizens must have a current U.S. address. All applications should include a curriculum vitae, a concise description of research (2–3 pages), and the title of the proposed talk/poster. All applications should also include at least one letter of recommendation; in particular, graduate students should include a letter of recommendation from their thesis advisors. Nominations by other mathematicians (along with the information described above) are also welcome. See our website www.awm-math.org for some advice on the application process from some of the conference organizers.

Send *five* complete copies of the application materials (including the cover letter) to:

Workshop Selection Committee
Association for Women in Mathematics
4114 Computer & Space Sciences Building
University of Maryland
College Park, Maryland 20742-2461

Phone: 301-405-7892

Email: awm@math.umd.edu URL: <http://www.awm-math.org>

APPLICATION DEADLINE: Applications must be received by **September 1, 2000**.
Applications via email or fax will not be accepted.

SONIA KOVALEVSKY HIGH SCHOOL MATHEMATICS DAYS

The Sonia Kovalevsky High School Mathematics Days below were funded by a grant awarded to AWM by Coppin State University, Microsoft Corporation, and the National Security Agency. Hearty thanks to all the funding agencies!

Valdosta State University

The Fifth Sonia Kovalevsky High School Mathematics Day (SK Day) at Valdosta State University (VSU) in Valdosta, GA was held on Thursday, April 13, 2000. The co-directors for the event were Dr. Kathy Simons and Dr. Denise T. Reid, both from VSU. Sponsors for the day included AWM, the National Security Agency, Microsoft Corporation, Coppin State University, VSU Department of Mathematics and Computer Science, South George Regional P-16 Council, Texas Instruments, Society of Actuaries, Langboard MDF, Houghton Mifflin Company, Prentice Hall, Inc., Nichols Schwartz Publishing, Addison Wesley Longman, Inc., VSU Bookstore, and Park Avenue Bank. 40 students, 13 teachers, and two VSU student interns from nine schools attended. Some participants came from across town, while others made a two-hour trip to VSU. The students were sophomores and juniors. Many had never previously attended a math day of any kind.

The participants had a full day of activities. There were three workshops, one on problem solving, one on figurate numbers, and one on origami. Dr. Caroline Hollingsworth from VSU led the problem-solving workshop. During this activity, the students worked in groups examining the Tower of Hanoi problem. The figurate workshop was led by Dr. Kathy Simons. The students not only learned what these numbers are, but

also how to define them with both recursive and explicit definitions. The origami workshop was led by Mr. Wing Lee, also from VSU. During this workshop, students learned how to use origami to trisect a line, to fold a square which has half the area of an original square, and to build a multicolored hexahedron. The evaluations completed by the participants clearly indicated that the workshops were a success. The students enjoyed the hands-on activities and the interaction among the participants. The career speaker for the day was Mrs. Joyce Bohl, an actuary with the Florida Insurance Department. She talked about her job, the mathematics she uses, and the preparation necessary to become an actuary. Dr. Denise Reid gave a short presentation on the Regent's Engineering Transfer Program at VSU. Also included in the activities for the day was a mathematics competition consisting of twenty-five multiple-choice questions.

Juice, donuts, and muffins were available when the participants arrived. During this time, the participants registered and mingled. They also had a chance to look at several displays. These displays included posters of the Platonic solids, brochures on mathematics and career opportunities, origami models, and models of Escher kaleidocycles from a previous SK Day. A scrapbook of previous SK Days at VSU was also on display. Later a buffet lunch was served. During lunch the participants got a chance to interact with each other as well as with speakers and VSU mathematics' faculty.

Door prizes were given to both students and teachers at the opening and closing of the day's events. These were donated by our sponsors. The winners of the mathematics competition were: 1st place, Nidhi Gupta (Valdosta); 2nd place, Mary Margaret Kurrie (Valdosta); and 3rd place, Laura Graham (Thomas Central). The first

Kathy Simons and Denise T. Reid, VSU

AWM SCHOLARS PROGRAM

AWM plans again to have a program (pending funding) for female advanced undergraduate and graduate students in mathematics at the AAAS Annual Meeting and Science Innovation Exposition, February 15–20, 2001, in San Francisco, California. The students chosen for this program will be expected to attend the entire meeting. AWM Past President Jean Taylor will organize daily seminars for these students, where they will discuss the mathematical sessions that have occurred and are about to occur, both with each other and with some of the session organizers and speakers. Other sessions, such as those dealing with science policy, may also be discussed. The students will probably serve as session aides for some of the AAAS sessions and in return receive free registration. AWM will provide the housing for the students, in shared hotel rooms, from Thursday night through Tuesday morning; the students' home institutions will be expected to pay the remaining travel expenses.

For details on the application procedure, see the AWM website www.awm-math.org. Deadline: November 17, 2000.

prize was a T-92 calculator. The second and third prizes were a dictionary and a thesaurus, respectively.

Also in attendance for the day was Dr. Mary Kay Corbitt, Associate Dean of the College of Arts and Sciences. Dr. Corbitt gave the opening remarks of the day, which included a biography of Sonia Kovalevsky. There were also several student volunteers present throughout the day. These were VSU students enrolled in mathematics classes.

The day was a success in many ways. The responses from individual student and teacher evaluations were very positive. They appreciated the opportunity to be included in such an event. The favorite events of the day were workshops and speakers. Both teachers and students expressed an interest in attending another SK Day. This day would not be possible without the support of our sponsors. We truly appreciate the opportunity to show these young girls how exciting and rewarding mathematics can be.



Origami Workshop, VSU SK Day

SONIA KOVALEVSKY HIGH SCHOOL MATHEMATICS DAYS

Through grants from Coppin State University, Microsoft Corporation, the National Security Agency (NSA) and Sandia National Laboratories, the Association for Women in Mathematics expects to support Sonia Kovalevsky High School Mathematics Days at colleges and universities throughout the country. Sonia Kovalevsky Days have been organized by AWM and institutions around the country since 1985, when AWM sponsored a symposium on Sonia Kovalevsky. They consist of a program of workshops, talks, and problem-solving competitions for high school women students and their teachers, both women and men. The purposes are to encourage young women to continue their study of mathematics, to assist them with the sometimes difficult transition between high school and college mathematics, to assist the teachers of women mathematics students, and to encourage colleges and universities to develop more extensive cooperation with high schools in their area.

AWM anticipates awarding at least 10 to 15 grants of up to \$3,000 each to universities and colleges; more grants may be awarded if additional funds become available. Historically Black Institutions and women's colleges are particularly encouraged to apply. Programs targeted towards inner city or rural high schools are especially welcomed. If selected, institutions will receive an information packet consisting of model schedules of activities, a check list for the sorts of arrangements that need to be made, suggestions for securing additional funding and for obtaining prizes to be awarded to contest winners, recruitment and publicity material to be adapted for local use, lists of possible workshop topics for students and teachers, model problem solving contest material, and guidelines for follow-up activities and evaluation.

Applications, not to exceed five pages, should include: a) tentative plans for activities, including specific speakers to the extent known; b) qualifications of the persons to be in charge; c) plans for recruitment, including the securing of diversity among participants; d) itemized budget; e) local resources in support of the project, if any; and f) tentative follow-up and evaluation plans. The decision on funding will be made late February to early March. The high school days are to be held in Spring 2001 or Fall 2001. If selected, a report of the event along with receipts (originals or copies) for reimbursement must be submitted to AWM within 30 days of the event date or by December 1, 2001, whichever comes first. Reimbursements will be made in one disbursement; no funds can be disbursed prior to the event date.

Send *five* complete copies of the application materials to: Sonia Kovalevsky Days Selection Committee, Association for Women in Mathematics, 4114 Computer & Space Sciences Building, University of Maryland, College Park, Maryland 20742-2461. For further information: phone, 301-405-7892; email, awm@math.umd.edu; URL: <http://www.awm-math.org>. Applications must be received by **February 5, 2001**; applications via e-mail or fax will not be accepted.

AWM WORKSHOP, JULY 2000

SIAM ANNUAL MEETING, PUERTO RICO



Workshoppers and organizer: Maia Martcheva, Polytechnic University; Katharine Gurski, NASA Goddard; Linda Smolka, Penn State University; Cammey Cole, North Carolina State University; Leona Harris, North Carolina State University; Tasha Inniss, University of Maryland; Maya Chhetri, University of North Carolina, Greensboro; Shobha Oruganti, Mississippi State University; Suzanne Lenhart (organizer and mentor), University of Tennessee; Shree Whitaker, National Institute of Environmental Health Services and North Carolina State University; Yadira Yellon Gilchrest, Naval Undersea Warfare Center; Ann Davis, California State University, Northridge; Deborah Stevens, Argonne National Laboratory



Workshoppers and mentors: Colleen Kirk, Montclair State University; Jeanne A. Atwell, Virginia Tech University; Sherry Scott, University of Maryland; Teresa Edwards (co-organizer and mentor), Spelman College; Andrea Lawrence (mentor), Spelman College; Kimberly Weems, University of Maryland; Tamara Kolda (mentor), Sandia National Laboratories; Kirsten Boyd, Stanford University; Theresa Strei, University of Nebraska; Eunok Jung, Oak Ridge National Laboratory; Kimber Gross, University of Houston; Dawn A. Lott (mentor), New Jersey Institute of Technology



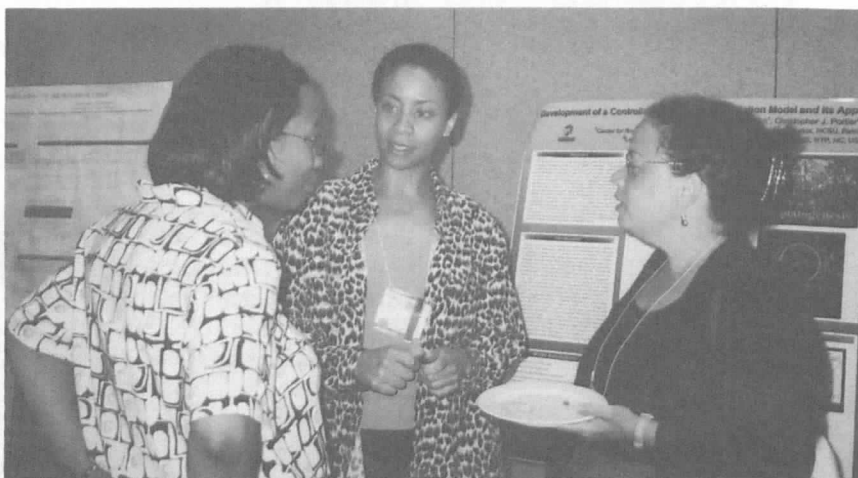
Minisymposium on PDEs & Applications: Teresa Edwards (organizer), Spelman College; Maya Chhetri, University of North Carolina, Greensboro; Deborah Stevens, Argonne National Laboratory; Jeanne Atwell, Virginia Tech University; Colleen Kirk, Montclair State University



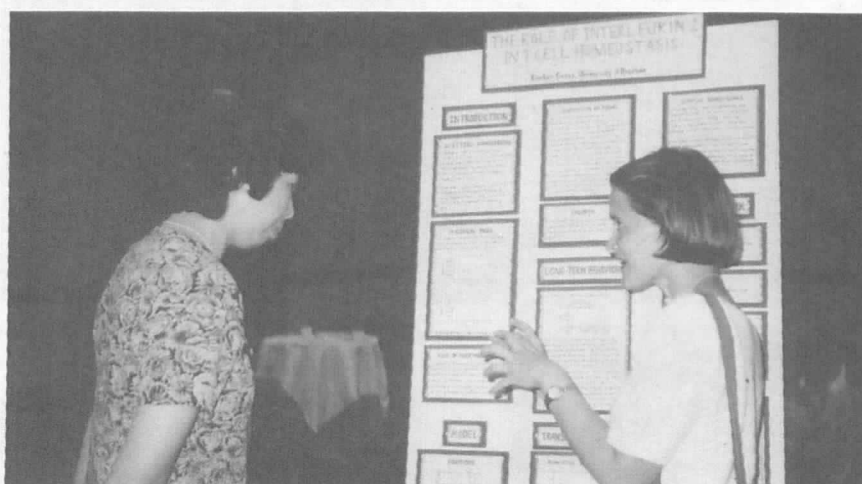
Minisymposium on Biological and Physical Modeling Applications: Katharine Gurski, NASA Goddard Space Flight Center; Eunok Jung, Oak Ridge National Laboratory; Maia Martcheva, Polytechnic University



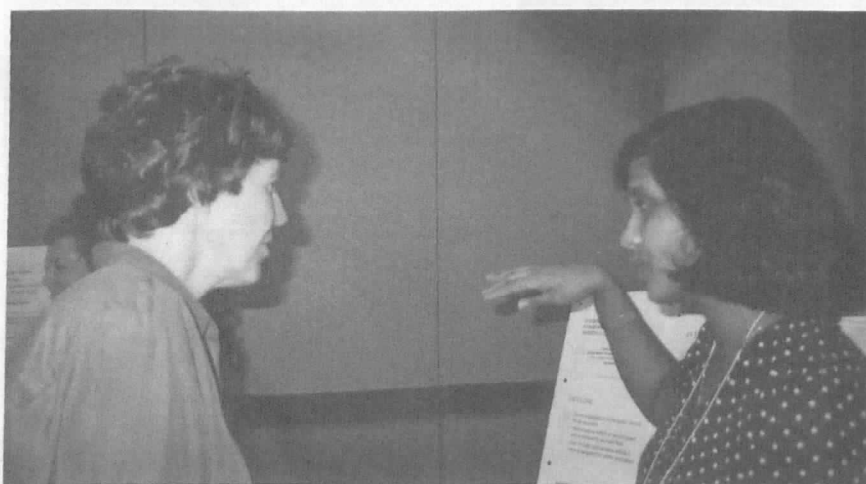
Launching a Career minisymposium: Deborah Lockhart, National Science Foundation; Mary Fannett Wheeler, University of Texas at Austin; Suzanne Lenhart (organizer), University of Tennessee; Teresa Edwards (co-organizer), Spelman College; Charles H. Romine, Oak Ridge National Laboratory



Poster Session: Leona Harris, North Carolina State University; Shree Whitaker, National Institute of Environmental Health Services and North Carolina State University; and Teresa Edwards, Spelman College by Leona's and Shree's posters



Poster Session: Zhilan Feng, Purdue University and Kimber Gross, University of Houston by Kimber's poster



Poster Session: Joyce McLaughlin, Rensselaer Polytechnic Institute and Urmi Ghosh-Dastidar, New Jersey Institute of Technology by Urmi's poster

ADVERTISEMENTS

**MARSHALL SHERFIELD POSTDOCTORAL FELLOWSHIPS
IN SCIENCE and ENGINEERING: 2000-2001**

Postdoctoral fellowships for U.S. scientists or engineers to undertake research at British universities or research institutes are available under the Marshall Sherfield Fellowship Program. These fellowships are available for up to one year starting during the academic year 2001-2002; are administered by the Marshall Aid Commemoration Commission in conjunction with the Marshall Scholarship Program. Fellowships will cover: a laboratory fee or research support grant; arrival allowance, grants for books, equipment, research/local travel and cost of written work/report preparation; living and housing allowances; return USA-UK airfare; and allowance for accompanying spouse & children. Awardees are expected to engage in a meaningful collaboration with a university or institute group of their choice whose research is complementary to their area of expertise. Preference will be given to candidates who combine high academic ability with an outgoing personality and good communication skills. Fellows will be expected to play an active part in the life of their chosen British university or research institute. To qualify, candidates should: • be citizens of, and normally resident in, the USA. • hold a doctorate in a science or an engineering subject by the time they take up their Fellowship. More information on the Fellowships and on application procedures and forms is available from:

www.acu.ac.uk/marshall/sherfield.html

The closing date for applications is **10 October 2000**.

Short-listed candidates will be interviewed at the British Embassy, Washington, DC, in early December. Awards will be announced shortly thereafter. The Marshall Sherfield Fellowships were inaugurated in 1997 on the occasion of the 50th anniversary of the speech in which General George Marshall announced the Marshall Plan. They represent an addition to the Marshall Scholarship Program & were named in memory of Lord Sherfield, a former British Ambassador to Washington, prominent leader of British science and technology policy and Fellow of the Royal Society.

**Charles Phelps Taft POSTDOCTORAL
FELLOWSHIPS at the University of Cincinnati**

Applications are also invited for **Charles Phelps Taft Postdoctoral Fellowship** intended to afford scholars who have demonstrated unusual ability for creative research, the opportunity to enhance their education through additional study and research. Each applicant must have been awarded the Ph.D. in the past five years (not before 5/1/996), or have completed all requirements for the degree by September 1, 2001. The application must include a carefully developed plan of research at the post-doctoral level, a complete up-to-date vita, three letters of reference, and the name of a faculty member, if known, at the University of Cincinnati with whom the applicant would like to study. Each application will be judged on the basis of ability as evidenced by demonstrated scholarship and letters of reference and on the compatibility of research interest with Graduate Faculty member on the University of Cincinnati campus. Each CP Taft Postdoctoral Fellow will be expected to devote full time to research during the tenure of the fellowship. The award carries an annual stipend of \$30,000. Additional benefits include \$500 to defer moving expenses, \$1,000 for research-related expenses, and health insurance coverage for the Fellow & dependent(s). Subject to Departmental instructional needs, the Fellow may be appointed to teach one course for one quarter only in his/her Department.

For full applications details contact the **Taft Postdoctoral Fellowships, Univ. of Cincinnati, P.O. Box 210369, Cincinnati OH 45221-0369** or email dunnpj@uc.edu. It is the responsibility of candidates to insure that their files are complete.

Applications must be completed before January 15, 2001

*AWM Events***Joint Mathematics Meetings, New Orleans, 1/10-13/01**

Preliminary Schedule of AWM Events as of August 1, 2000

Wednesday, January 10th

2:45 p.m. - 4:05 p.m. **AWM Panel**

"AWM and K-8 education: What should we do?"

Organizers: AWM President **Jean Taylor**, Rutgers Univ. & AWM President-Elect **Suzanne Lenhart**, Univ. of Tennessee. **Panelists:** Shirley Malcom, AAAS; Judith Roitman, Univ. of Kansas; Erica Voolich, Solomon Schechter Day School; Virginia Warfield, Univ. of Washington

[At conclusion of panel, AWM will recognize the Schafer Prize honorees]

4:05 p.m. - 4:25 p.m. **AWM Business Meeting**

6:00 p.m. - 8:15 p.m. **AWM Noether Dinner**

9:30 p.m. **AWM Reception**

Thursday, January 11th

9:00 a.m. **AWM Noether Lecture**

"Nonlinear equations in conformal geometry"

presented by Sun-Yung Alice Chang, Princeton Univ. and UCLA

4:25 p.m. - 7:00 p.m. **Joint Prize Session**

Presentation to the winners of the 11th Annual Louise Hay Award for Contributions to Mathematics Education and the 11th Annual Alice T. Schafer Prize for Excellence in Mathematics by an Undergraduate Woman

Saturday, January 22nd

8:20 a.m. - 4:40 p.m. **AWM Workshop**

featuring presentations by Women Graduate Students and Recent Ph.D.'s. Supported by ONR & NSF (pending final funding approval).

For more details on the above events, please see the following websites:

www.ams.org/meetings or www.awm-math.org

DEPARTMENT OF MATHEMATICS CHAIRPERSON

Applications are invited for the position of Chair of the Department of Mathematics beginning fall 2001. The successful candidate will have academic credentials qualifying for appointment at the rank of full professor at the University of Louisville. Applicants are expected to have a strong and ongoing research record, demonstrated excellence in undergraduate and graduate education, commitment to faculty development, and possess superior leadership and communication skills. The following experiences will be viewed favorably: successful grant writing, curriculum and program development, graduate teaching and involvement with professional organizations.

The Chair is the educational and administrative head of the department, and as such is solely responsible for all aspects of the coordination of the department. This includes financial and academic authority, and being the spokesperson to the upper administration.

The Department of Mathematics offers programs leading to MS, BA, and BS degrees in mathematics, with concentrations in pure mathematics, actuarial mathematics, applied mathematics, probability and statistics. The department is on the verge of a major expansion of the graduate program. There are currently 25 full-time faculty lines, and 120 declared math majors. Research strengths of the department are in algebra, analysis, combinatorics, probability and statistics. The University of Louisville has an enrollment of almost 22,000 students. The main campus is in the metro Louisville area (see <http://www.louky.org>). For further details about the University of Louisville visit the web site <http://www.louisville.edu>. For further information about the position see <http://www.math.louisville.edu/chairsearch.html>.

The review process will begin immediately and continue until the position is filled or the search is closed. Applicants should submit a letter of application that includes a CV, statement of professional goals, and the names, mail and e-mail addresses, and telephone numbers of four references to:

Dr. George Pack, Search Committee Chair
c/o Jonna Coulter
College of Arts & Sciences
Office of the Dean
University of Louisville
Louisville, KY 40292

UofL

The University of Louisville is an AA/EQ employer and encourages applications from women, minorities, and underrepresented groups.

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BROWN UNIVERSITY - DEPARTMENT OF MATHEMATICS - J.D. Tamarkin Assistant Professorship - One three-year non-tenured non-renewable appointment beginning July 1, 2001. Teaching load: one to two courses per semester (3-6 hours per week). Candidates are required to have received a Ph.D. degree or equivalent by the start of this appointment, and they may have up to 3 years of academic and/or postdoctoral research experience by then. **VIGRE Postdoctoral Fellow:** One three-year non-tenured non-renewable appointment, beginning July 1, 2001. Teaching load: one course per semester (3 hours per week). The fellowship includes summer support and a \$2,500/year research fund. Candidates are required to have received a Ph.D. degree by the start of this appointment, and they may have up to 18 months of academic and/or postdoctoral research experience by then. Candidates must be U.S. citizens, nationals, or permanent residents to qualify for the VIGRE fellowships which are NSF supported positions. Applicants should have strong research potential and a commitment to teaching. Field of research should be consonant with the current research interests of the department. For full consideration, a curriculum vita, an AMS Standard Cover Sheet, and 3 letters of recommendation must be received by December 1, 2000. All inquiries and materials should be addressed to: **Junior Search Committee, Dept. of Mathematics, Brown University, Providence, RI 02912.** To access the AMS Standard Cover Sheet, visit our website: <http://www.math.brown.edu/juniorschsearch.shtml>. Email inquiries can be addressed to juniorschsearch@math.brown.edu. Brown University is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.

BROWN UNIVERSITY - DEPARTMENT OF MATHEMATICS - One professorship at the Associate Professor or Professor level, with tenure to begin July 1, 2001. Preference to be given to applicants with research interests consonant with those of the present members of the Department. Candidates should have a distinguished research record and a strong commitment to undergraduate and graduate teaching. Qualified individuals are invited to send a vitae and arrange for at least five letters of recommendation to be forwarded to: **Senior Search Committee, Dept. of Mathematics, Box 1917, Brown University, Providence, Rhode Island 02912.** Applications must be postmarked by October 31, 2000, in order to receive full consideration. Email inquiries can be addressed to srschsearch@math.brown.edu. Brown University is an Equal Opportunity/Affirmative Action employer and encourages applications from women and minorities.

BRYN MAWR COLLEGE - DEPARTMENT OF MATHEMATICS - Tenure-track Assistant Professor of Mathematics - The Mathematics Department of Bryn Mawr College invites applications for a tenure track position in applied mathematics at the rank of assistant professor, to start in the Fall Semester of 2001 (pending final administrative approval). Candidates must have completed a doctorate in mathematics or an allied field by the starting date and must show promise in research and a serious commitment to undergraduate and graduate teaching. Preference will be given to applicants with interest in interdisciplinary collaboration and in engaging undergraduates in their research. Applications should include a curriculum vitae, a description of research, a statement of teaching philosophy, and three or more letters of reference, at least one of which discusses the applicant's teaching. The review of applications will begin on January 1, 2001 and continue until the position is filled. All materials should be sent to: **Mathematics Search, Dept. of Mathematics, Bryn Mawr College, Bryn Mawr, PA 19010.** For more information, consult <http://www.brynmawr.edu/mathsearch>. Bryn Mawr is an exceptional liberal arts college for women with coeducational graduate programs in sciences, some humanities, and social work. The College supports faculty excellence in both teaching and research, and provides a rigorous education in the context of a diverse and pluralistic scholarly community. Located 11 miles west of Philadelphia, Bryn Mawr participates in consorital programs with the University of Pennsylvania, Haverford & Swarthmore Colleges. Bryn Mawr College is an equal opportunity, affirmative action employer. Members of underrepresented groups are especially encouraged to apply.

CALIFORNIA POLYTECHNIC STATE UNIVERSITY, DEPARTMENT OF MATHEMATICS - Mathematics tenure-track position beginning Fall 2001. Assistant professor appointment anticipated. Salary commensurate with qualifications and experience. Excellence in teaching and an active program in research/professional development are expected. Doctorate in mathematics or closely related field is required. Preferred areas of interest are Applied Analysis (numerical and asymptotic analyses, differential equations, modeling), Combinatorics (algebraic & probabilistic combinatorics, partitions, symmetric functions, symbolic computation), and Topology (algebraic & differential topology, fixed point and knot theories, low dimensional manifolds). Submit Cal Poly application form (request via math@calpoly.edu), resume, brief statement of professional goals, three letters of reference (at least one of which addresses teaching experience), and transcripts (unofficial okay initially) to: **Dept. Chair, Mathematics Dept., Cal Poly, San Luis Obispo, CA 93407.** All materials must be received by the closing date: 12/1/00. Please indicate **Recruitment Code: 13002** on all correspondence. Cal Poly is strongly committed to achieving excellence through cultural diversity. The university actively encourages applications & nominations of women, persons of color, applicants with disabilities, & members of other under-represented groups. AA/EEO

CALIFORNIA POLYTECHNIC STATE UNIVERSITY - DEPARTMENT OF MATHEMATICS - Mathematics Education - Tenure-track position beginning Fall 2001. Salary commensurate with qualifications and experience. Responsibilities include teaching methods courses for prospective K-12 teachers, supervising student teachers and senior projects, and teaching mathematics courses. Requirements: Doctorate in mathematics education with the equivalent of a master's degree in mathematics, or a doctorate in mathematics with significant experience in teacher education. Pre-college teaching experience and a background in educational technology and assessment are strongly desired. Submit Cal Poly application form (request via math@calpoly.edu), resume, statement of professional goals, three letters of reference, and transcripts to: **Math Ed Screening Committee, Mathematics Dept., Cal Poly, San Luis Obispo, CA 93407.** (Refer to **Recruitment Code #13001** on all correspondence.) All materials must be received by the closing date: December 4, 2000. Cal Poly is strongly committed to achieving excellence through cultural diversity. The university actively encourages applications and nominations of women, persons of color, applicants with disabilities, and members of other under-represented groups. AA/EEO

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA - DEPARTMENT OF MATHEMATICS - Tenure-track in pure math and math education, Asst Prof rank (second position with similar description to be announced later). Duties: teach major & service courses in secondary teaching/pure option; advise students seeking secondary teaching credential; interact with Center for Education & Equity in Math, Sci. & Tech. and School of Ed. Min qual: Ph.D. in pure math with ability to teach geometry, number theory, topology and strong background in math ed. or doctorate in math ed. with ability to teach upper division pure math courses. Evidence of teaching excellence, potential for conducting scholarly activities. Completion of terminal degree by Sept. 2001. Initial review of applications: 12/15/00, continues until position is filled or closed. Submit application form, vitae, transcripts, and min. of 3 reference letters to: **Faculty Search Committee, Math Department, Cal Poly Pomona, 3801 W. Temple Ave, Pomona, CA 91768-4007; 909-869-4008; Fax: 909-869-4904; email: lmorchert@csupomona.edu.** AA/EEO. See <http://www.csupomona.edu/~math>.

INDIANA UNIVERSITY, BLOOMINGTON - DEPARTMENT OF MATHEMATICS - Two tenure track positions will be available starting in the 2001-2002 academic year. Outstanding candidates with a Ph.D. in all areas of pure and applied mathematics and statistics are encouraged to apply. One of these positions is restricted to the area of statistics, and this position could be a senior position with tenure. Excellent research potential, as well as a commitment to teaching are required. Indiana University is an equal opportunity/affirmative action employer. Preference will be given to applications received by December 1, 2000. Please send a letter of application to: **Search Committee, Department of Mathematics, Indiana University, 831 East 3rd Street, Rawles Hall, Bloomington, IN 47405-7106.**

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INSTITUTE FOR ADVANCED STUDY - SCHOOL OF MATHEMATICS - The School of Mathematics has a limited number of memberships, some with financial support for research in mathematics at the Institute during the 2001-02 academic year. Candidates must have given evidence of ability in research comparable at least with that expected for the Ph.D. degree. Yakov Eliashberg will be the Distinguished Visiting Professor during the 2001-02 academic year, and he will be organizing a program on holomorphic curves and their applications. The School of Mathematics and the Department of Mathematics at Princeton University have established the Veblen Research Instructorship, and three-year instructorships will be offered each year to candidates who have received their Ph.D. within the last three years. The first and third year of the instructorship will be spent at Princeton University and will carry regular teaching responsibilities. The second year will be spent at the Institute and dedicated to independent research of the instructor's choice. Application materials for both the **IAS MEMBERSHIPS** and the **VEBLEN INSTRUCTORSHIP** positions may be requested from Applications, School of Mathematics, Institute for Advanced Study, Einstein Drive, Princeton, NJ 08540, 609-734-8112, email: Applications@math.ias.edu. Forms may be downloaded but not submitted via a web connection to: <http://www.math.ias.edu>. Both application deadlines are December 1, 2000.

INSTITUTE FOR MATHEMATICS AND ITS APPLICATIONS - UNIVERSITY OF MINNESOTA - IMA announces a program on **Mathematics in the Geosciences (2001-2002)** - ORGANIZING COMMITTEE: William Newman (Chair), David R. Brillinger, Michael Ghil, James Hyman, Frederic Schoenberg, William Symes, Donald Turcotte, Mary Wheeler. **A ONE-YEAR PROGRAM WITH THREE PARTS:** (1) Fall: September - December 2001, **Dynamical Systems and Ergodic Theory**. (2) Winter: January - March 2002, **Multiscale Phenomena and Renormalization**. (3) Spring: April - June 2002, **Inverse Problems and the Quantification of Uncertainty**. **TWO-YEAR POSTDOCTORAL MEMBERSHIPS:** The second year of the appointment will provide a variety of options to enhance career development, including participation in the 2002-2003 **ANNUAL PROGRAM: Optimization**. All requirements for a doctorate should be completed by September 1, 2001. Applicants must show evidence of mathematical excellence, but they do not need to be specialists in the field. The following materials must be submitted (all materials should arrive by January 15, 2001): (1) Personal statement of scientific interests, research plans, and reasons for wishing to participate in the Geosciences program. (2) Curriculum vitae and a list of publications. (3) Three letters of recommendation to be sent directly to the IMA. (4) Submit the official IMA application form located at <http://www.ima.umn.edu/docs/genapp.html>. **SENIOR MEMBERSHIPS:** Preference will be given to supplementary support for persons with sabbatical leaves, fellowships, or other stipends. **POSTDOCTORATES IN INDUSTRIAL MATHEMATICS:** IMA announces two-year positions in Industrial Mathematics, effective September 1, 2001. These appointments are in addition to the regular program and are funded jointly by the NSF and participating industries. They are designed to prepare mathematicians for research careers involving industrial interaction. Applicants should have fulfilled all requirements for a Ph.D. in Mathematics, applied Mathematics or Statistics by September 1, 2001. Postdoctorates will spend 50% effort working with industrial scientists and 50% effort in the regular IMA program. Requirements and application procedures are the same as for the postdoctoral memberships listed above. The University of Minnesota is an equal opportunity educator and employer. Questions: email: staff@ima.umn.edu, or call (612) 624-6066. All correspondence should be sent to either POSTDOC/VISITING MEMBERSHIP COMMITTEE or INDUSTRIAL MATHEMATICS POSTDOCTORATE MEMBERSHIP COMMITTEE, Institute for Mathematics and its Applications, University of Minnesota, 400 Lind Hall, 207 Church St. S.E., Minneapolis, MN 55455-0436.

INSTITUTE FOR PHYSICAL SCIENCE AND TECHNOLOGY - Director - [for this adv. see **UNIVERSITY OF MARYLAND, COLLEGE PARK**]

MICHIGAN STATE UNIVERSITY - DEPARTMENT OF MATHEMATICS - Chairperson - Michigan State University invites nominations and applications for the position of Chairperson of the Department of Mathematics. MSU is a land-grant and AAU institution with total enrollment of approximately 43,000 graduate and undergraduate students. The Department of Mathematics is a group I research department and a major participant in the instructional and research activities of the university. Its personnel include 68 tenure stream faculty and more than 125 graduate students in the areas of pure and applied mathematics and mathematics education. The Chair will lead the faculty in shaping and developing the department's research, instructional, and service programs, including recruitments into numerous forthcoming faculty openings. Candidates should possess a Ph.D. in the mathematical sciences, outstanding research credentials, and an established record of university and professional service appropriate for a tenured appointment at the rank of professor. Candidates should also demonstrate effective leadership, communication, and administrative skills. The new Mathematics Chair must be strongly committed to: supporting continued improvement in the department's research standing, promoting growth in the areas of applied mathematics and mathematics education, developing interdisciplinary research initiatives, furthering excellence in teaching and instructional innovation, and enhancing relations within and outside the mathematics community. The position of Chairperson carries tenure at the rank of professor, and is available on 1 September 2001. Salary will be competitive, and commensurate with qualifications. To apply, please send a vita and have at least four letters of recommendation sent to: **Professor Joel Shapiro, Chair Search Committee, Department of Mathematics, Michigan State University, East Lansing, MI 48824**. Applications will be considered until the position is filled. Completed applications (including letters of recommendation) received by December 15, 2000 will be assured of full consideration. Applications are strongly encouraged from members of groups that are traditionally underrepresented in mathematics. MSU is an Affirmative Action/Equal Opportunity Institution.

MICHIGAN STATE UNIVERSITY - LYMAN BRIGGS SCHOOL - Assistant/Associate Professor of Mathematics - Michigan State University invites applications for a tenure track, academic year, assistant/associate professorship of mathematics position in the Lyman Briggs School, an undergraduate, residential, liberal arts science program within the College of Natural Science. Candidates must have a Ph.D. in mathematics, mathematics education, or statistics and a research record commensurate with an appointment at the assistant or associate professor rank. Preference will be given to applicants with at least five years experience and who are particularly passionate about teaching mathematics to undergraduates. Duties include teaching two of the four Lyman Briggs mathematics courses offered each semester and supervising undergraduate teaching assistants. This position offers exciting opportunities to collaborate with faculty in the Department of Mathematics, the Division of Science and Mathematics Education, the College of Education, and the Drew Science Enrichment Program on questions about the teaching and learning of mathematics at the undergraduate level. The Briggs School environment offers additional opportunities for integrating mathematics with the other science courses. A complete application package consists of a cover letter, curriculum vitae, a representative scholarly paper, a personal teaching philosophy statement, a list of undergraduate mathematics courses taught in the last five years, and the names and addresses of three references, all sent in a single mailing. The material should be sent to: **Mathematics Search Committee, Lyman Briggs School, Holmes Hall, Michigan State Univ., East Lansing, MI 48825-1107**. Complete applications should be received by November 1, 2000; later submissions may be considered if suitable candidates have not yet been identified. Questions should be directed to Ms. Kathie Ellis (at above address) or (517) 353-6486 or ellisk@pilot.msu.edu. Michigan State University is an Affirmative Action/Equal Opportunity Institution. Applicants who are not U.S. citizens or permanent residents must provide a document of employment authorization for the U.S. Persons with disabilities have the right to request and receive reasonable accommodation. Women and minorities are strongly encouraged to apply. See www.msu.edu and www.msu.edu/unit/lbs

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MICHIGAN STATE UNIVERSITY - DEPARTMENT OF STATISTICS AND PROBABILITY - The Department of Statistics and Probability at Michigan State University has a tenure track Assistant Professorship available beginning August 16, 2001. The candidate should have a Ph.D. with concentration in statistics and/or probability and a strong research and teaching potential. Preference will be given to candidates with research interests in statistics. Please have curriculum vitae and three recommendation letters sent to: **Search Committee, Department of Statistics and Probability, A415 Wells Hall, Michigan State University, East Lansing, MI 48824-1027.** Selection process will begin December 1, 2000 and continue until the position is filled. MSU is an Affirmative Action/Equal Opportunity Institution. Minorities and women are strongly encouraged to apply.

MICHIGAN TECHNOLOGICAL UNIVERSITY - DEPARTMENT OF MATHEMATICAL SCIENCES - Statistics - Applications are invited for a tenure track position in Statistics starting August 2001. Ph.D., outstanding research potential, and a demonstrated record of teaching effectiveness required. Preference will be given to applicants in Computational Statistics, Spatial Statistics, and Experimental Designs. Send vita and 3 letters of reference to: **Statistics Search Committee, Department of Mathematical Sciences, Michigan Technological University, 1400 Townsend Drive, Houghton, MI 49931-1295.** Michigan Technological University is an equal opportunity educational institution/equal opportunity employer.

NEW MEXICO STATE UNIVERSITY - DEPARTMENT OF MATHEMATICAL SCIENCES - The department invites applications for tenure-track and visiting positions in mathematics and statistics for academic year 2001-2002. The department has 31 tenure-track faculty members, and offers B.S., M.S. and Ph.D. degrees. Tenure-track appointments are expected to be at the assistant professor level. Applicants should demonstrate strong potential for success in both teaching and research. A complete application consists of an introductory letter, the American Mathematical Society's Application Cover Sheet (limited to one page), a curriculum vitae, and three letters of recommendation. The AMS form must clearly identify the candidate's research area and interest in a tenure-track or visiting position. The letters of recommendation should document abilities in both teaching and research. Review of applications will begin on November 1, 2000 and continue until the positions are filled. Application materials should be sent to: **Hiring Committee, Department of Mathematical Sciences, New Mexico State University, Las Cruces, NM 88003.** NMSU is an Equal Opportunity/Affirmative Action Employer.

NEW MEXICO INSTITUTE OF MINING AND TECHNOLOGY - invites applications for positions as assistant professor in applied mathematics, mathematics education, and statistics. These are tenure track positions, beginning in Fall of 2001. New Mexico Tech offers bachelors in mathematics and master's degrees in mathematics operations research and statistics, and industrial mathematics. Minimum qualifications are a Ph.D. in mathematics, statistics, or the equivalent, a strong record of teaching excellence, a promising research record, and excellent English and communications skills. For the **APPLIED MATHEMATICS POSITION**, preference will be given to those with specialties in Numerical PDEs, Industrial Math or modeling, interest in interdisciplinary research, and research interests that complement those of the department. For the **MATHEMATICS EDUCATION POSITION**, preference will be given to those with experience with Supplemental Instruction, interest in teacher training, and interest and experience in pre-calculus instruction. For the **STATISTICS POSITION**, preference will be given to those with specialties in applied probability and statistics, stochastic processes, or geostatistics, interest in interdisciplinary research, and research interest that complement those of the department. The successful applicant will teach two or three courses per semester (five per year), ordinarily in their area of interest. Opportunities for research with existing research projects at New Mexico Tech include the Langmuir Laboratory for Atmospheric Research, the Geophysical Research Center, the Energetic Material Research and Testing Center, the National Radio Astronomy Observatory, Aerojet, the Petroleum Recovery Research Center, and other Socorro-based companies. Current faculty interests are applied mathematics, differential equations, mathematical physics, integral equations, numerical analysis, optimization, graph theory, and statistics. The starting date is August 14, 2001. Applications received prior to January 15, 2001 will receive full consideration. Applications will be evaluated until the positions are filled. Send Curriculum Vita, teaching evaluations, transcripts, and a letter describing your teaching philosophy and research interests. Also, have three letters of recommendations sent. Send all material to **New Mexico Institute of Mining and Technology, 801 Leroy Place, Human Resources, Wells Hall Box 86C, Socorro, NM 87801.** Information about the department can be found at <http://www.nmt.edu/~math/>. Email applications are NOT accepted. AA/EEO

NORTHWESTERN UNIVERSITY - DEPARTMENT OF MATHEMATICS - Non-Tenure position - Applications are solicited from people whose research is related to Algebraic Topology for two Ralph Boas assistant professorships of three years each starting in September 2001. These positions are non-tenure track and are part of the Emphasis Year in Algebraic Topology which the department will be sponsoring in 2001-2002. Applications should be sent to the **Emphasis Year Committee, Department of Mathematics, Northwestern University, 2033 Sheridan Road, Evanston, Illinois 60208-2730** and **Boas Assistant Professor, at the same department address** and include: (1) the American Mathematical Society's Application Cover Sheet for Academic Employment, (2) a curriculum vitae, and (3) three letters of recommendation including one which discusses in some detail the candidate's teaching qualifications. Inquiries may be sent via email to hiring@math.nwu.edu. Applications are welcomed at any time, but the review process starts December 1, 2000. Northwestern University is an affirmative action, equal opportunity employer committed to fostering a diverse faculty; women and minority candidates are especially encouraged to apply.

NORTHWESTERN UNIVERSITY - DEPARTMENT OF MATHEMATICS - Tenure position - Applications are invited for anticipated tenure-track or tenured positions starting September 2001, pending final approval. Priority will be given to exceptionally promising research mathematicians. Fields of interest within the department include Algebra, Algebraic Geometry, Analysis, Dynamical Systems, Mathematical Physics, Probability, Partial Differential Equations, and Topology. Application material should be sent to **Personnel Committee, Department of Mathematics, Northwestern University, 2033 Sheridan Road, Evanston, Illinois 60208-2730** and include: (1) the American Mathematical Society's Application Cover Sheet for Academic Employment, (2) a curriculum vitae, and (3) at least four letters of recommendation including one which discusses in some detail the candidate's teaching qualifications. Inquiries may be sent via email to hiring@math.nwu.edu. Applications are welcome at any time, but the review process starts in October 2000. Northwestern University is an affirmative action, equal opportunity employer committed to fostering a diverse faculty; women and minority candidates are especially encouraged to apply.

THE OHIO STATE UNIVERSITY - DEPARTMENT OF MATHEMATICS - The Department of Mathematics of The Ohio State University expects to have available several tenure-track/tenured position and several visiting positions, effective Autumn Quarter 2001. Candidates in all areas of pure and applied mathematics are invited to apply. Significant mathematical research accomplishment and evidence of excellent teaching ability area required. The Department will also have available several Hans J. Zassenhaus Assistant Professorships and Arnold Ross Assistant Professorships. These term positions are renewable annually up to a total of three years. Candidates are expected to present evidence of excellence in research and teaching. Please send a CV and have at least three letters of recommendation sent to: **Professor Peter March, Chair, Department of Mathematics, The Ohio State University, 231 W. 18th Avenue, Columbus, Ohio 43210.** The Ohio State University is an Equal Opportunity/Affirmative Action employer. Women and minority candidates are encouraged to apply.

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PURDUE UNIVERSITY - DEPARTMENT OF MATHEMATICS - Applications are invited for tenure-track Assistant Professor or three-year Research Assistant Professor appointments beginning August 2001. Ph.D. by August 2001, exceptional research promise, and strong teaching record required. Applications will also be accepted for possible appointments at the Associate Professor/Professor level. Ph.D. and excellence in research and teaching required. Outstanding applicants from all mathematical research areas will be considered. Because the department has several openings in applied mathematics, candidates who have significant research accomplishments in applied mathematics or computational applied mathematics are especially encouraged to apply. Several positions may be available for terms ranging from one semester to two years beginning August 2001. All applicants should have research interests in common with Purdue faculty. Send vita, summary of research interests/plans, and arrange for three letters of recommendation (one addressing teaching) to be sent to: **Carl Cowen, Head, Department of Mathematics, Purdue University, West Lafayette, IN 47907-1395**. Review of applications will begin November 15, 2000 and continue until available positions are filled. Offers for tenure-track positions may be made at any time; some offers for RAP and visiting positions will be made before the end of January 2001. Purdue is an Affirmative Action/Equal Opportunity Employer.

RICE UNIVERSITY - DEPARTMENT OF MATHEMATICS - Griffith Conrad Evans Instructorships Postdoctoral appointments for two to three years for promising research mathematicians with research interests in common with the active research areas at Rice, particularly geometric topology, geometric analysis, differential geometry, wavelets, combinatorics, and ergodic theory. Duties will include research and classroom teaching. The mathematical department has applied for an NSF VIGRE grant. Properly qualified Evans Instructors may have the opportunity to participate as VIGRE Fellows. Applications received by December 31, 2000 will receive full consideration. Rice University is an Equal Opportunity Affirmative Action Employer and strongly encourages applications from women and minority group members. Inquiries and applications should be addressed to: **Chair, Evans Committee, Department of Mathematics, Rice University, P.O. Box 1892, Houston, TX 77251-1892**. Submitting the AMS Application Cover Sheet (available in Notices, EIMS or e-math) would be greatly appreciated.

ROCHESTER INSTITUTE OF TECHNOLOGY - DEPARTMENT OF MATHEMATICS - The Department of Mathematics and Statistics at Rochester Institute of Technology (RIT) invites nominations and applications for the position of the Head of the Department to start as early as July 1, 2001. Candidates must have a doctoral degree in mathematics or statistics and an established record of professional activities appropriate for appointment at the rank of professor. They are expected to have a strong commitment to undergraduate education, to possess a record of scholarly achievement, and to demonstrate leadership, communication, and organizational skills. In addition, long-range vision, creative ideas, and strong advocacy for the department are necessary in order to lead in departmental growth, to recruit new faculty and students, to enrich and expand our programs, and to stimulate and support the varied professional activities of the department. The Department of Mathematics and Statistics consists of thirty-three faculty members and offers three undergraduate degree programs: Applied Mathematics, Applied Statistics, and Computational Mathematics, as well as a number of combined BS/MS programs and a masters degree program in applied mathematics. In addition, the department serves the mathematical needs of the institute with a large variety of courses. It is part of the College of Science, one of seven colleges that make up RIT. RIT is a private, coeducational university, which offers academic programs that combine outstanding teaching, a strong foundation in the liberal arts and sciences, modern classroom and laboratory facilities, and work experience through the university's extensive cooperative education program. Additional information on the department may be obtained at the department's website: <http://www.rit.edu/~673www/mathstat.html>. Candidates should send a letter of application and curriculum vita, and arrange for three professional reference letters to be sent to: **Chair, Department Head Search Committee, Department of Mathematics and Statistics, Rochester Institute of Technology, 85 Lomb Memorial Dr., Rochester, NY 14623**. In addition to the above, applicants should send a statement describing their personal qualifications for this position and the contributions to the department they envision making in this position. Additional information may be requested via email sent to dsmsma@rit.edu. Review of applications is scheduled to begin on October 15, 2000 and will continue until the position is filled. RIT is an equal opportunity, affirmative action employer. Women and minority candidates are strongly encouraged to apply.

SOUTHERN ILLINOIS UNIVERSITY, CARBONDALE - DEPARTMENT OF MATHEMATICS - Algebra Position - Applications are invited for a tenure-track position in Algebra at the assistant professor level to begin on August 16, 2001. Applicant must have a research program in Algebra or a closely related field and must demonstrate evidence of, or potential for, excellence both in research and teaching at all university levels. Ph.D. in mathematics required at time of application. Send letter of application, CV, and three letters of recommendation to: **Algebra Position, Department of Mathematics, Southern Illinois University, Carbondale, IL 62901-4408**. Review of applications will begin October 20, 2000, and continue until position is filled. Southern Illinois University Carbondale is an equal opportunity/affirmative action employer. Women and minorities are particularly encouraged to apply.

SOUTHERN ILLINOIS UNIVERSITY, CARBONDALE - DEPARTMENT OF MATHEMATICS - Mathematical Finance Position - Applications are invited for a tenure-track position in Mathematical Finance at the assistant professor level to begin on August 15, 2001. Candidates must have a strong background in the relevant areas of mathematics, and show evidence of, or potential for, excellence both in research and teaching. Teaching duties may include courses in both mathematics and statistics. Postdoctoral experience is preferred. Send letter of application, CV, and three letters of recommendation to: **Mathematical Finance Position, Department of Mathematics, Southern Illinois University, Carbondale, IL 62901-4408**. Review of applications will begin January 19, 2001, and continue until position is filled. Southern Illinois University Carbondale is an equal opportunity/affirmative action employer. Women and minorities are particularly encouraged to apply.

UNIVERSITY OF ARIZONA - DEPARTMENT OF MATHEMATICS - Academic Year 2001-2002 - The Mathematics Department at the University of Arizona may have positions, subject to availability of funding, beginning fall 2001. **Tenure track positions.** Ph.D. and excellent research record or potential, and strong commitment to teaching required. Fields should complement but not duplicate existing department research areas: algebra and number theory; algebraic, differential, and symplectic geometry; computational and nonlinear science; dynamical systems; mathematics education; mathematical biology; mathematical physics; probability and statistics. **The Richard S. Pierce Visiting Research Assistant Professorship.** This is a three-year appointment carrying a teaching load of three hours per semester. Candidates are required to have received a Ph.D. degree or equivalent by the start of this appointment, and they may have up to three years of academic and/or postdoctoral research experience by then. The Mathematics Department may also have other postdoctoral or visiting positions for next year. Ph.D. required. We encourage early application. Application review begins November 1, 2000, with applications accepted until December 1, 2000, or as long as positions remain unfilled. Send AMS Coversheet, a letter of interest (please specify which position(s) you are applying for), curriculum vitae with a list of publications, and a minimum of three (3) letters of recommendation (enclose or arrange to be sent), to: **Personnel Committee, Department of Mathematics, University of Arizona, P.O. Box 210089, Tucson, Arizona 85721-0089**. The AMS form can be downloaded from <http://www.ams.org/employment/coversheet-info.html>. The University of Arizona is an EEO/AA Employer. M/W/D/V

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UNIVERSITY OF CALIFORNIA AT BERKELEY - DEPARTMENT OF MATHEMATICS - Tenured or Tenured Track Position - Pending budget approval, we invite applications for one or more positions effective July 1, 2001 at either the tenure-track (Assistant Professor) or tenured (Associate or Full Professor) level, in the general areas of pure or applied mathematics. **Tenure Track applications** are expected to have demonstrated outstanding research potential, normally including major contributions beyond the doctoral dissertation. Such applicants should send a resume, and reprint or preprints, and/or dissertation abstract, and ask three people to send letters of evaluation to: **The Vice Chair for Faculty Affairs, Department of Mathematics, University of California at Berkeley, Berkeley, CA 94720**. It is the responsibility of the tenure track applicants to make sure that letters of evaluation are sent. All letters of evaluation are subject to Berkeley campus policies on confidentiality of letters of evaluation, a summary of which can be found on our home page (<http://math.berkeley.edu> by clicking on People, and then Faculty Positions at Berkeley). **Tenure applicants** are expected to demonstrate leadership in research and should send a curriculum vitae, list of publications, a few selected reprints or preprints, and the name and addresses of three references to: **The Vice Chair for Faculty Affairs at the above address**. Applicants should indicate whether they are applying for an Associate Professor or a Full Professor position. The department will assume responsibility to solicit letters of evaluation and will provide evaluators with a copy of the summary of policies on confidentiality of letter of evaluation. All applicants are requested to use the AMS standardized application form and to indicate their subject area using the AMS subject classification numbers. The form is the Academic Employment in Mathematics, Application Cover Sheet, it is available courtesy of the American Mathematical Society. Applications for both Tenure track and Tenure applications must be postmarked by November 15, 2000. Applications postmarked after the deadline will not be considered. The University of California is an Equal Opportunity, Affirmative Action Employer.

UNIVERSITY OF CALIFORNIA AT BERKELEY - DEPARTMENT OF MATHEMATICS - Charles B. Morrey Jr. Assistant Professorships - We invite applications for these special (nontenure-track) positions effective July 1, 2001. The terms of these appointments may range from two to three years. Applicants should have a recent Ph.D., or the equivalent, in an area of pure or applied mathematics. Applicants should send a resume, reprints, preprints and/or dissertation abstract, and ask three people to send letters of evaluation to: **The Vice Chair for Faculty Affairs, Department of Mathematics, University of California at Berkeley, Berkeley, CA 94720**. All letters of evaluation are subject to Berkeley campus policies on confidentiality of letters of evaluation, a summary of which can be found on our home page (<http://math.berkeley.edu> by clicking on People, and then Faculty Positions at Berkeley). We request that applicants use the AMS standardized application form and indicate their subject area using the AMS subject classification numbers. The form is the Academic Employment in Mathematics, Application Cover Sheet, it is available courtesy of the American Mathematical Society. Applications must be postmarked by December 1, 2000. Applications postmarked after the deadline will not be considered. The University of California is an Equal Opportunity, Affirmative Action Employer.

UNIVERSITY OF CALIFORNIA AT BERKELEY - DEPARTMENT OF MATHEMATICS - Several temporary positions beginning in Fall 2001 are anticipated for new and recent Ph.D.'s of any age, in any area of pure or applied mathematics. The terms of these appointments may range from one to three years. Applicants for NSF or other postdoctoral fellowships are encouraged to apply for these positions. Mathematicians whose research interests are close to those of regular department members will be given some preference. Applicants should send a resume and reprints, preprints, and/or dissertation abstract, and ask three people to send letters of evaluation to: **The Vice Chair for Faculty Affairs, Department of Mathematics, University of California at Berkeley, Berkeley, CA 94720**. All letters of evaluation are subject to Berkeley campus policies on confidentiality of letters of evaluation, a summary of which can be found on our home page (<http://math.berkeley.edu> by clicking on People, and then Faculty Positions at Berkeley). We request that applicants use the AMS standardized application form and indicate their subject area using the AMS subject classification numbers. The form is the Academic Employment in Mathematics, Application Cover Sheet, it is available courtesy of the American Mathematical Society. Applications must be postmarked by December 1, 2000. Applications postmarked after the deadline will not be considered. The University of California is an Equal Opportunity, Affirmative Action Employer.

UNIVERSITY OF CALIFORNIA, LOS ANGELES - DEPARTMENT OF MATHEMATICS - Subject to availability of resources and administrative approval, the following positions are available: (1) Several tenure-track and senior positions in all areas of mathematics. (2) **Several E.R. Hedrick Assistant Professorships**. Salary is \$50,800. Three year appointment. Teaching load: four quarter courses per year, which may include one advanced course in the candidate's field. (3) **Several Research Assistant Professorships in Computational and Applied Mathematics (CAM)**. Salary is \$50,800. Three year appointment. Teaching load: normally is reduced to two or three quarter courses per year by research funding as available; may include one advanced course in the candidate's field. (4) **Several Adjunct Assistant Professorships or Lectureships in the Program in Computing (PIC)**. Applicants for the Adjunct position must show very strong promise in teaching and research in an area related to computing. Teaching load: four one-quarter programming courses each year and one seminar every two years. One-year initial appointment, with the option of applying for renewal for a second year and possible longer, up to a maximum service of four years. Salary is \$54,400. Applicants for the Lectureship must show very strong promise in the teaching of programming. An M.S. in Computer Science or equivalent degree is preferred. Teaching load: six one-quarter programming courses per year. One-year appointment, probably renewable one or more times, depending on the needs of the program. Salary is \$43,152 or more, depending on experience. (5) **Several VIGRE Assistant Professorships**. Hedrick, CAM, or PIC applicants, who are U.S. citizens or permanent residents, may also apply for a VIGRE Assistant Professor position. Three-year appointment. Salary is \$50,800. The successful recipient will receive a summer stipend of \$6,500 for two summers and \$2,500 per year for travel, equipment, and supplies for three years. Teaching load: 3 courses per year. (6) **Several Adjunct Assistant Professorships and Research Postdocs**. Up to one year appointment, with the possibility of renewal. Strong research and teaching background required. Salary \$46,800-\$50,800. Teaching load for Adjuncts: five quarter courses per year. (7) **Several visiting instructorships**. For more details, see <http://www.math.ucla.edu/~search>. To apply, complete the application on the website, or send email to search@math.ucla.edu or write to: **Staff Search, Department of Mathematics, University of California, Los Angeles, CA 90095-1555**. Preference will be given to applications completed by January 8, 2001. UCLA is an Equal Opportunity/Affirmative Action Employer. Under Federal law, the University of California may employ only individuals who are legally authorized to work in the United States as established by providing documents specified in the Immigration Reform and Control Act of 1986.

UNIVERSITY OF GEORGIA - DEPARTMENT OF MATHEMATICS - Two postdoctoral positions with the title part-time instructor postdoctoral associate, offered by the Department of Mathematics beginning in the 2001-2002 academic year. The positions are for two years with a possibility of renewal for a third year. The department especially encourages applications from women and minorities. Duties consist of teaching three courses per year and conducting original research. Applicants are encouraged to identify a member of the current faculty with whom they would like to work. Eligibility: Applicants must exhibit potential for significant research and the skills necessary to be an excellent teacher. Deadline: To assure full consideration applications must be received by December 1, 2000. Application information: To apply, send a vita with a list of publications and four letters of recommendation to: **Chair, Search Committee, Department of Mathematics, The University of Georgia, Athens, GA 30602**. Inquiries may be sent via email to search@math.uga.edu. The University of Georgia is an Equal Opportunity/Affirmative Action Employer.

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UNIVERSITY OF GEORGIA - DEPARTMENT OF MATHEMATICS - Assistant Professor Positions - Applications are invited for four tenure-track positions at the rank of assistant professor, to begin in August, 2001. Candidates should have a Ph.D. in pure or applied mathematics and should exhibit outstanding research potential as well as a commitment to excellence in teaching. The area of priority for one of these positions is number theory. Applications from all areas of pure and applied mathematics will be considered for the other three positions. One of these three positions is designated to support teacher preparation and the teaching duties associated with this position will include mathematics content courses for education majors. Applicants should submit a completed AMS cover sheet, a curriculum vitae and a brief statement about their current and future research plans. Candidates for the position involving teacher preparation should include a statement about their interest in this field. Send all materials to: **Search Committee Chair, Dept. of Mathematics, University of Georgia, Athens, GA 30602**. They should also arrange to have three letters of recommendation concerning research and one concerning teaching sent directly to the above address. Inquiries may be sent via email to search@math.uga.edu. The University of Georgia is an Affirmative Action/Equal Opportunity Employer that is committed to increasing the diversity of its faculty. We especially encourage applications from women, minorities and under represented groups. To assure full consideration applications must be received by Dec. 1, 2000.

UNIVERSITY OF ILLINOIS AT CHICAGO - DEPARTMENT OF MATHEMATICS - The Department has active research programs in all areas of pure mathematics, computational and applied mathematics, combinatorics and computer science, statistics, and mathematics education. See <http://www.math.uic.edu> for more information. Applications are invited for the following positions, effective August 21, 2001. **Tenure track or tenured position.** Candidates in all areas of interest to the Department will be considered. The position is initially budgeted at the Assistant Professor level, but candidates with a sufficiently outstanding research record may be considered at higher levels. Applicants must have a Ph.D. or equivalent degree in mathematics, computer science, statistics, mathematics education or related field, an outstanding research record, and evidence of strong teaching ability. Salary negotiable. **Research Assistant Professorship/VIGRE Postdoctoral Fellowship.** This is a non-tenure track position, normally renewable annually to a maximum of three years. This position is partially funded by a VIGRE grant from the NSF and is open only to U.S. citizens, nationals or permanent residents. The position carries a teaching load of one course per semester, with the requirement that the incumbent play a significant role in the research life of the Department. The salary for AY 2001-2002 for this position is expected to be \$45,000; in each of the first two years the VIGRE grant provides an additional \$6,000 for summer support. Applicants must have a Ph.D. or equivalent degree in mathematics, computer science, statistics, mathematics education or related field, and evidence of outstanding research potential. Send vita and direct 3 letters of recommendation, clearly indicating the position being applied for, and whether you are eligible for a VIGRE fellowship, to: **Appointments Committee; Dept. of Mathematics, Statistics, & Computer Science; University of Illinois at Chicago; 851 S. Morgan (M/C 249); Chicago, IL 60607**. No email applications will be accepted. To ensure full consideration, materials must be received by October 31, 2000. Minorities, persons with disabilities, and women are particularly encouraged to apply. UIC is an AA/EOE.

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN - DEPARTMENT OF MATHEMATICS - The Department of Mathematics, University of Illinois at Urbana-Champaign, invites applications for several open tenure-track and tenured faculty positions, as well as 3-year non-tenured postdoctoral appointments. Deadline for applications: November 30, 2000. For details, please see the department's website at (<http://www.math.uiuc.edu/Positions/>).

UNIVERSITY OF LOUISVILLE - DEPARTMENT OF MATHEMATICS - The Department of Mathematics at the University of Louisville invites applications for one tenure-track (Assistant Professor) position in optimization, operations research or biomathematics. Exceptional candidates in other areas of applied mathematics will also be considered. This appointment will begin July 1, 2001. Preference will be given to candidates whose research interests include either problems in logistics and distribution or development and analysis of mathematical models arising from the life sciences. Ph.D. in mathematics or related area is required, and the successful candidate must show strong potential in research and teaching. In addition, candidates should demonstrate effective communication skills. Applications should include: (1) the American Mathematical Society's standard cover sheet, (2) curriculum vitae, (3) summary of research interest (4) statement of teaching qualifications, and (5) at least four letters of recommendation including one which discusses in some detail the candidate's teaching qualifications. Applications should be sent to: **Search Committee, Department of Mathematics, University of Louisville, Louisville, Kentucky 40292**. Review of applications will begin immediately and continue until the position is filled. The University of Louisville is an Affirmative Action/Equal Opportunity Employer and encourages women and underrepresented minorities to apply. Applicants must comply with the provisions of the Immigration Reform and Control Act.

UNIVERSITY OF MARYLAND, COLLEGE PARK - DEPARTMENT OF MATHEMATICS - Avron Douglass Lectureships - Applications are invited for lectureships, starting Fall 2001. These positions are for recent Ph.D. recipients, with a preference for those not more than one year past the Ph.D. degree. The Lectureship is for two years and is non-renewable. Candidates must have superior research potential and a strong commitment to teaching. The Department of Mathematics provides an excellent scientific environment to foster the professional development of junior mathematicians. The teaching duties consist of three courses per year. The salary is \$45,000 per academic year, supplemented by a \$1,000 research stipend. Priority will be given to applications completed by December 15, 2000. The University of Maryland is an Equal Opportunity and Affirmative Action employer that strongly encourages applications from female and minority candidates. Please send a curriculum vitae and AMS Standard Cover Sheet, and arrange for three or more letters of recommendation, at least one of which speaks to the applicant's teaching credentials, to be sent to: **Douglass Lectureship Committee, Department of Mathematics, University of Maryland, College Park, MD 20742**.

UNIVERSITY OF MARYLAND, COLLEGE PARK - DEPARTMENT OF MATHEMATICS - Tenured and Tenure-track positions - Applications are invited for tenured and tenure-track positions in the Department of Mathematics. Strong preference will be given to candidates in (1) Applied harmonic analysis, (2) Algebraic geometry, and (3) Geometry, but candidates from all areas will be considered. Candidates at all levels will be considered. Priority will be given to applicants received by November 1, 2000. Appointments will commence in Fall 2001. The University of Maryland is an Equal Opportunity and Affirmative Action employer that strongly encourages applications from female and minority candidates. Please send a curriculum vitae and AMS Standard Cover Sheet, and arrange for three letters of recommendation to be sent to: **The Hiring Committee, Department of Mathematics, University of Maryland, College Park, MD 20742**.

UNIVERSITY OF MARYLAND, COLLEGE PARK - DEPARTMENT OF MATHEMATICS - Computational Nonlinear Dynamics Faculty Position - A theoretical nonlinear dynamicist with strong interest in computation is sought for a tenured or tenure-track appointment in the Department of Mathematics, possibly joint with the Institute for Physical Science and Technology. An outstanding record of research accomplishments and a proven ability to attract research support are important for a senior position. Good teaching is a priority of the university. Applications should be sent to **Chair's Office, Computation Nonlinear Dynamics, Department of Mathematics, University of Maryland, College Park, MD 20742-4015**. Priority will be given to applications received by December 31, 2000. Appointments will commence in Fall 2001. The University of Maryland is an Equal Opportunity and Affirmative Action employer.

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UNIVERSITY OF MARYLAND, COLLEGE PARK - DEPARTMENT OF MATHEMATICS - Statistics - University of Maryland Statistics Program seeks candidates for tenured/tenure track positions (all levels), with strong preference for persons working in applied or computational statistics. Appointments begin 8/17/2001. Priority will be given to persons whose applications are completed by December 31, 2000. Send CV, AMS Standard Cover Sheet, 3 recommendations letters to: **Hiring Committee, Department of Mathematics, University of Maryland, College Park, MD 20742**. Affirmative Action/Equal Opportunity Employer. Female and minority candidates are encouraged to apply.

UNIVERSITY OF MARYLAND, COLLEGE PARK - INSTITUTE FOR PHYSICAL SCIENCE AND TECHNOLOGY - COLLEGE OF COMPUTER, MATHEMATICAL AND PHYSICAL SCIENCES - Director - The University of Maryland, College Park, invites applications for the position of **Director of the Institute for Physical Science and Technology (IPST)**. The Institute currently has 35 faculty members, most of whom hold joint appointments in an academic unit such as Physics, Mathematics, Engineering, and Chemistry. The IPST faculty are internationally known and many are heavily involved in scientific computation. They lead major research programs in Applied Mathematics, Chemical and Biological Physics, Optical Physics, Nonlinear Dynamics, Space and Upper Atmosphere Physics, and Statistical Physics. The Director will be an outstanding scientist who will play a leadership role in developing and implementing a vision for the Institute as a major center on the campus that interacts with the teaching departments. Candidates for this position must have an established international reputation in interdisciplinary research with strong management skills. The appointment will be made at the Full Professor level and carries academic tenure. To apply, send a letter of application, curriculum vitae and a list of suggested names and addresses for letters of recommendation to: **Dr. Joseph JaJa, Chair IPST Director Search Committee, Institute for Advanced Computer Studies, University of Maryland, College Park, MD 20742**. To receive full consideration, applications should be received by Nov. 15, 2000. For more information, please contact Dr. Joseph JaJa at 301-405-6722 or joseph@umiacs.umd.edu. The University of Maryland is an affirmative action, equal opportunity employer. Women and minorities are encouraged to apply. Applications will be accepted until the position is filled.

UNIVERSITY OF MICHIGAN - DEPARTMENT OF MATHEMATICS - The Department has several openings at the **tenure-track or tenure level**. Candidates should hold the Ph.D. in mathematics or a related field, and should show outstanding promise and/or accomplishments in both research and teaching. Areas of special interest are: analysis, geometry/topology, applied and interdisciplinary mathematics, including computational science, probability, and actuarial or financial mathematics. However, we encourage applications from any area of pure or applied mathematics. Salaries are competitive, based on credentials. Applicants should send a CV, bibliography, descriptions of research and teaching experience, and have three or four letters of recommendation, at least one of which addresses the candidate's teaching experience and capabilities, sent to: **Personnel Committee, University of Michigan, Department of Mathematics, 2074 East Hall, Ann Arbor MI 48109-1109**. Applications are considered on a continuing basis but candidates are urged to apply by November 1, 2000. More detailed information regarding available positions may be found on our web page: <http://www.math.lsa.umich.edu>. Inquiries may be made by email to math.chair@math.lsa.umich.edu. The University of Michigan is an equal opportunity, affirmative action employer.

UNIVERSITY OF MICHIGAN, ANN ARBOR - DEPARTMENT OF MATHEMATICS - Assistant Professorships, VIGRE Assistant Professorships, and T.H. Hildebrandt Research Assistant Professorships - These positions for up to three years are designed to provide mathematicians with favorable circumstances for academic career development in research and teaching. Assistant Professorships have a teaching responsibility of two courses per semester; the VIGRE and T.H. Hildebrandt positions have a responsibility of one course per semester. These positions may be combined with other postdoctoral fellowships giving additional reductions in teaching responsibility. Preference is given to candidates who receive the Ph.D. degree in 1999 or later and who submit a completed application by December 18, 2000. Salary is competitive and there are opportunities for supplemental summer salary. Application forms and further important information are available at <http://www.math.lsa.umich.edu/information/positions.html>, by Email at math.chair@math.lsa.umich.edu, or by mail from: **Hiring Committee, Department of Mathematics, University of Michigan, 2074 East Hall, 525 E. University, Ann Arbor, MI 48109-1109**.

UNIVERSITY OF MINNESOTA - IMA Positions/Memberships - [for this adv. see **INSTITUTE FOR MATHEMATICS AND ITS APPLICATIONS**]

UNIVERSITY OF MINNESOTA, MINNEAPOLIS - SCHOOL OF MATHEMATICS - Dunham Jackson Assistant Professor - This is a three-year appointment from fall semester, 2001 through spring semester, 2004 with a teaching load of 3 one-semester courses per academic year. Outstanding research and teaching abilities required. Preference will be given to applicants whose research interests are compatible with those of the School. Applicants should have received a Ph.D. or equivalent degree in mathematics no earlier than Jan. 1, 2000 and no later than August 26, 2001. Summer School teaching may be available during the summer of 2002 and 2003 to supplement regular stipend. Salary competitive. Consideration of applications will begin December 1, 2000 and continue until available positions are filled. Send letter of application, current curriculum vitae, minimum 3 letters of recommendation, and description of research to: **Naresh Jain, Head, School of Mathematics, University of Minnesota, 206 Church Street S.E., 127 Vincent Hall, Minneapolis, MN 55455**. The University of Minnesota is an equal opportunity educator and employer.

UNIVERSITY OF MINNESOTA, MINNEAPOLIS - SCHOOL OF MATHEMATICS - Tenured or Tenure Track Positions starting Fall Semester 2001 - The School of Mathematics may have available several tenure track Assistant Professor or tenured Associate or Full Professor positions starting fall semester, 2001. Ph.D. or equivalent degree in mathematics by the beginning date of appointment, outstanding research and teaching abilities are required. Applications at all levels are invited; preference will be given to applicants whose research interests are compatible with those of the School. Consideration of applications will begin November 1, 2000 and will continue until available positions are filled. Send letter of application, current curriculum vitae, at least 3 letters of recommendation, and description of research to: **Naresh Jain, Head, School of Mathematics, University of Minnesota, 127 Vincent Hall, 206 Church Street S.E., Minneapolis, MN 55455**. The University of Minnesota is an equal opportunity educator and employer.

UNIVERSITY OF MINNESOTA, MINNEAPOLIS - SCHOOL OF MATHEMATICS - Several temporary or visiting positions at all levels (Lecturer, Assistant, Associate or Full Professor) may be available for terms ranging from one semester to two years beginning fall semester 2001. Ph.D. or equivalent degree in mathematics by beginning date of appointment, strong research and teaching abilities are required. Preference will be given to applicants whose research interests are compatible with those of the School. Salary competitive. Consideration of applications will begin December 1, 2000 and continue until available positions are filled. Send letter of application, current curriculum vitae, at least 3 letters of recommendation and description of research to: **Naresh Jain, Head, School of Mathematics, University of Minnesota, 206 Church Street S.E., 127 Vincent Hall, Minneapolis, MN 55455**. The University of Minnesota is an equal opportunity educator & employer.

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UNIVERSITY OF MINNESOTA - SCHOOL OF MATHEMATICS - Future development of advanced biotechnology will depend on a better fundamental understanding of complex cellular processes. The **Department of Mathematics and the Biological Process Technology Institute** at the University of Minnesota seek an individual engaged in modeling and analysis of self-organization and biocomplexity at the cellular level for a joint appointment. Possible areas of concentration include: protein folding, biocatalysis, functional genomics or proteomics, analysis of complex metabolic or gene control networks, and molecular evolution. This will be a tenure-track or tenured position, with the level of appointment to be commensurate with qualifications. Ph.D. in mathematics or a related field is required by the beginning date of appointment. Salary competitive. Consideration of applications will begin November 1, 2000 and will continue until position is filled. Send curriculum vitae, description of research, and a minimum 4 letters of recommendation to: **Professor Hans Othmer, School of Mathematics, University of Minnesota, 127 Vincent Hall, 206 Church Street S.E., Minneapolis, MN 55455.** Phone (612) 624-8325. See also <http://www.math.umn.edu>. The University of Minnesota is an equal opportunity educator and employer.

UNIVERSITY OF MISSOURI, COLUMBIA - DEPARTMENT OF MATHEMATICS - Subject to approval, applications are invited for several tenured or tenure-track and postdoctoral positions to start in fall 2001. The positions will be in the three areas of Modern Analysis/Harmonic Analysis, Algebra/Algebraic Geometry, and Mathematical Physics. All positions require a Ph.D. in Mathematics or equivalent by August 31, 2001 and a proven record and experience to warrant the hiring at a given rank. Salary is commensurate with rank and qualifications. Send a curriculum vitae along with a letter of application, a completed AMS Standard Cover Sheet, and arrange for three letters of recommendation to be sent to: **Elias Saab, Chair, Department of Mathematics, University of Missouri, Columbia, MO 65211.** Applications will be reviewed starting November 1, 2000 and continue until suitable candidates are found. The University of Missouri-Columbia is an Equal Opportunity/Affirmative Action employer. To request ADA accommodations, please contact our ADA Coordinator at (573) 874-7278 or adawww@showme.missouri.edu. For more information visit our homepage: <http://www.math.missouri.edu>

UNIVERSITY OF NEBRASKA, LINCOLN - DIVISION OF STATISTICS - Two tenure-track Asso./Full Prof positions, starting January or August 2001. Review begins Oct. 1, 2000. Ph.D. in statistics or related field. One hire will be the Director of the Division of Statistics. Outstanding research and teaching required. Priority given to survey sampling. Send vita and contact information for four references to: **Stat Search Committee, 922 Oldfather Hall, UNL, Lincoln, NE 68588-0323.** More details at <http://www.math.unl.edu>. The University of Nebraska is committed to a pluralistic campus community through Affirmative Action and Equal Opportunity, and is responsive to the needs of dual career couples. We assure reasonable accommodation under the Americans with Disabilities Act. Please contact Kathy Schoonover at 402-472-3731.

UNIVERSITY OF NOTRE DAME - DEPARTMENT OF MATHEMATICS - Regular Positions in Pure Mathematics - The Department of Mathematics of the University of Notre Dame invites applications for two positions starting August 24, 2001. The three fields of interest are Applied PDEs, Harmonic Analysis, and Lie Theory and Algebraic Geometry, but outstanding candidates in all fields are encouraged to apply. The positions are at the tenure track level, though a tenured appointment may be possible for an exceptional candidate. The teaching load is one course one semester and two courses the other semester. Salaries are competitive. Applications, including a curriculum vitae, a letter of application, and a completed AMS standard cover sheet, should be sent to: **Steven A. Buechler, Chair, Department of Mathematics, University of Notre Dame, Notre Dame, IN 46556.** Applicants should also arrange for at least three letters of recommendation to be sent to the Chair. These letters should address the applicant's research accomplishments and supply evidence that the applicant has the ability to teach articulately and effectively. Notre Dame is an equal opportunity employer. Women and minorities are urged to apply. The evaluation of candidates will begin December 1, 2000. Information about the department is available at <http://www.math.nd.edu/math>

UNIVERSITY OF NOTRE DAME - DEPARTMENT OF MATHEMATICS - Regular Position in Stochastic Analysis - The Department of Mathematics of the University of Notre Dame invites applications for a position in the field of Applied Stochastic Analysis to start on August 24, 2001. The position is at the tenure track level, but a tenured appointment may be possible for an exceptional candidate. The teaching load is one course one semester and two courses the other semester. The salary is competitive. Applications, including a curriculum vitae, a letter of application, and a completed AMS standard cover sheet, should be sent to: **Steven A. Buechler, Chair, Department of Mathematics, University of Notre Dame, Notre Dame, IN 46556.** Applicants should also arrange for at least three letters of recommendation to be sent to the chair. These letters should address the applicant's research accomplishments and supply evidence that the applicant has the ability to teach articulately and effectively. Notre Dame is an equal opportunity employer. Women and minorities are urged to apply. The evaluation of candidates will begin December 1, 2000. Information about the department is available at <http://www.math.nd.edu/math>

UNIVERSITY OF NOTRE DAME - COLLEGE OF SCIENCE - CLARE BOOTHE LUCE PROGRAM AWARD - Junior Faculty Chair Position For Women - The University of Notre Dame invites applications from qualified candidates for a Clare Boothe Luce Assistant Professorship within the College of Science. This is a tenure-track appointment at the Assistant Professor level beginning August 22, 2001. The position is restricted by the Luce Foundation to women who are U.S. citizens. Candidates should have a Ph.D. in one of the areas present in our departments of Biological Sciences, Chemistry and Biochemistry, Mathematics, or Physics. Preference will be given for appointments in fields where women are currently underrepresented in these departments. The successful applicant will be expected to have a strong commitment to excellence in teaching at both the undergraduate and graduate levels and to develop a vigorous independent research program. Competitive salary and start up funds are available. Interested candidates should send a letter of intent, a curriculum vitae, statements of research and teaching interests and have three letters of recommendation sent to: **Dr. Kathleen Cannon, Associate Dean, College of Science, 229 Nieuwland Science Hall, University of Notre Dame, Notre Dame, IN 46556.** To insure full consideration, the Search Committee should receive all materials by December 8, 2000.

UNIVERSITY OF OREGON - DEPARTMENT OF MATHEMATICS - Applications are invited for tenure-track positions in mathematics beginning in September 2001. Qualifications are a Ph.D. in the mathematical sciences, an excellent record of research accomplishment, and evidence of teaching ability. Applicants from all fields will be considered with preference given to those in geometry, topology, applied mathematics, PDE's, and analysis. Competitive salary with good fringe benefits. Send complete resume and at least three letters of recommendation to: **Search Committee, Department of Mathematics, 1222 University of Oregon, Eugene, Oregon 97403-1222.** Closing date is January 8, 2001. Women and minorities are encouraged to apply. An EO/AA/ADA Institution committed to diversity.

ADVERTISING DEADLINE for the November/December 2000 issue is: OCTOBER 1, 2000

-more-

ADVERTISEMENTS

UNIVERSITY OF WATERLOO - DEPARTMENT OF COMBINATORICS AND OPTIMIZATION - Senior Position in Cryptography - Applications are being invited for a tenured faculty position at the rank of Professor, in the area of cryptography. An outstanding record of research in cryptography and computational number theory are required. Responsibilities will include research, supervision of graduate students, and teaching at the undergraduate and graduate levels. The successful candidate will take a leadership role in the Centre for Applied Cryptographic Research, and, in particular, serve as its Managing Director. Salary will depend on the candidate's qualifications. Effective date of appointment: July 1, 2001, or earlier if mutually agreeable. This appointment is subject to the availability of funds. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native peoples, and persons with disabilities. Interested individuals should send curriculum vitae, up to four selected reprints/preprints and the names, addresses, and email addresses of three references to: **Prof. W.H. Cunningham, Chair, Dept. of Combinatorics and Optimization, Faculty of Mathematics, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1.** email: combopt@math.uwaterloo.ca; phone: (519) 888-4567 ext. 2411; fax: (519) 725-5441; http://math.uwaterloo.ca/CandO_Dept/homepage.html

UNIVERSITY OF WATERLOO - DEPARTMENT OF PURE MATHEMATICS - The Department of Pure Mathematics expects one or more tenure-track positions starting July 1, 2001. Candidates in any area of Pure Mathematics will be considered. In order to be considered for a position, a Ph.D. is required. Postdoctoral experience is preferred. An appointment will be offered only to someone with very strong research and teaching qualifications. The closing date for receipt for applications is December 1, 2000. Applicants should submit their curriculum vitae, together with the names of at least three referees, and should arrange for letters of reference to be sent directly from the referees. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native people, and persons with disabilities. This appointment is subject to the availability of funds. Please send applications to: **Dr. B. Forrest, Chair, Department of Pure Mathematics, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1.** The department's webpage is at http://math.uwaterloo.ca/PM_Dept/homepage.html/

UNIVERSITY OF WISCONSIN, MADISON - DEPARTMENT OF MATHEMATICS - The Department of Mathematics anticipates openings for three positions to begin August 27, 2001, at either the tenure-track (assistant professor) or tenured (associate professor) level. Strong preference will be given to hiring at the assistant professor level. Applications are invited in all areas of mathematics. Areas in which the department wishes to hire in the near future include: partial differential equations, probability, and algebraic geometry. Candidates should exhibit evidence of outstanding research potential, normally including significant contributions beyond the doctoral dissertation. A strong commitment to excellence in instruction is also expected. Additional departmental information is available on our website, <http://www.math.wisc.edu/>. Applicants should send a completed AMS standard cover sheet, a curriculum vita which includes a publication list, and brief descriptions of research and teaching to: **Hiring Committee, Department of Mathematics, Van Vleck Hall, University of Wisconsin, Madison, 480 Lincoln Drive, Madison, WI 53706-1388.** Applicants should also arrange to have sent to the above address, three to four letters of recommendation, at least one of which must discuss the applicant's teaching experiences and capabilities. Review of applications will begin on November 1, 2000. Applications will be accepted until the positions are filled. Additional letters will be solicited by the Department for candidates who are finalists for a tenured position. The Department of Mathematics is committed to increasing the number of women and minority faculty. The University of Wisconsin is an Affirmative Action, Equal Opportunity Employer and encourages applications from women and minorities. Unless confidentiality is requested in writing, information regarding the applicants must be released upon request. Finalists cannot be guaranteed confidentiality.

WAYNE STATE UNIVERSITY - DEPARTMENT OF MATHEMATICS - Applications are invited for a possible tenure-track positions at the rank of Assistant/Associate Professor in any area of specialization. Applications from female and minority candidates are particularly encouraged. There is also the possibility of visiting positions for 2001-2002 in any area of mathematics. Ph.D. in mathematics and a strong interest in research and teaching are required for all positions. Applications should include a signed, detailed vita, description of current research interests, and four letters of recommendation, including one addressing teaching. Solid evidence of excellence in teaching at the undergraduate level is preferred over a statement of teaching philosophy. Applications received by January 1, 2001 will be given priority. Wayne State University is an equal opportunity/affirmative action employer. Wayne State University - People working together to provide quality service. All buildings, structures and vehicles at WSU are smoke-free. Send to: **Lowell J. Hansen, Chair, Wayne State University, College of Science, Department of Mathematics, Detroit, Michigan 48202; Telephone: (313) 577-2479; Fax: (313) 577-7596.**

WESLEYAN UNIVERSITY - DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE - The Department of Mathematics and Computer Science invites applications for a senior position in mathematics to begin in the academic year 2001-2002. Candidates for this position must have a Ph.D. in mathematics and are expected to have strong records in research, teaching, and leadership. Professor/Associate Professor of Mathematics: We seek candidates for a tenured appointment. We are particularly interested in candidates who can support the department's long-standing activity in dynamical systems. Outstanding candidates in all areas of mathematics are encouraged to apply. Note: We anticipate two junior level openings in the department as well; these will be advertised later in the fall. Normal teaching duties in mathematics are two courses per semester. These courses range from calculus to graduate topics. It is expected that the successful candidate will assume an active leadership role in the department, including advising doctoral students, participating in the appointment of junior faculty, and chairing the department in due course. Wesleyan University is committed to increasing the diversity of its faculty and is an equal opportunity/ affirmative action employer. Applications must be submitted by October 27, 2000, and early application is welcome. Applicants should arrange for at least four letters of recommendation, including one which evaluates teaching, to be sent to the address below. All correspondence and applications should be submitted to: **Mathematics Search Committee, Department of Mathematics, Wesleyan University, Middletown, CT 06459.** Email inquiries may be directed to mathjobs@wesleyan.edu. For more information concerning the Department of Mathematics and Computer Science and about Wesleyan University can be found via <http://www.math.wesleyan.edu/>

YALE UNIVERSITY - DEPARTMENT OF MATHEMATICS - Yale University applications accepted for Gibbs Instructorships/Assistant Professorships for Ph.D. with outstanding promise in research. Appointments are for two/three years, starting July 2001. American citizens and U.S. residents will automatically be considered for Special Gibbs Instructorships that are supported by a NSF VIGRE grant. These appointments are for three years and have a reduced teaching load. Applications and supporting materials must be received by January 1, 2001. Offers will be made during February. Salary at least \$47,000. Request applications from: **Teresa Bowen, Administrative Assistant, Gibbs Committee, Department of Mathematics, Yale University, P.O. Box 208283, New Haven, CT 06520-8283.** Email Address: teresa.bowen@yale.edu. Yale is an Affirmative Action/Equal Opportunity Employer.

2000/2001 AWM MEMBERSHIP: Renewal Notices for the 2000/2001 AWM Membership year were mailed out in late August/early September and should be received by the end of September. If you have not received your membership renewal notice in the mail by October 15, 2000, please **RENEW** using the new membership form on **PAGE 39**

Association for Women in Mathematics

2000/2001 MEMBERSHIP FORM

LAST NAME FIRST NAME M.I.

ADDRESS

AWM's membership year is from October 1st to September 30th. Please fill-in this information and return it along with your DUES to:

AWM Membership

4114 Computer & Space Sciences Building
University of Maryland
College Park, MD 20742-2461

The AWM Newsletter is published six times a year and is part of your membership. Any questions, contact AWM at awm@math.umd.edu; (301) 405-7892 or refer to our website at: <http://www.awm-math.org>

☐ I DO NOT wish for my AWM membership information to be released for the Combined Membership List.

Email:

Home Phone:

☐ do not publish home number

Work Phone:

☐ do not publish work number

Date of Birth (optional): (MMDDYYYY) [the date of birth field is to strictly help prevent duplicate entries]

PROFESSIONAL INFORMATION:

Position:

Institution/Company:

City, State, Zip:

If student, GRADUATE or UNDERGRADUATE (circle one)

If not employed, leave position & institution blank

DEGREES EARNED:

Degree(s)

Institution(s)

Year(s)

Doctorate:

Master's:

Bachelor's:

SO_00

INDIVIDUAL DUES SCHEDULE

Please check the appropriate membership category below. Make checks or money order payable to: **Association for Women in Mathematics.**

NOTE: All checks must be drawn on U.S. Banks and be in U.S. Funds. AWM Membership year is **October 1st to September 30th.**

REGULAR INDIVIDUAL MEMBERSHIP.....	\$ 50	_____
2ND FAMILY MEMBERSHIP.....	\$ 30	_____
(NO newsletter) Please indicate regular family member: _____		
CONTRIBUTING MEMBERSHIP.....	\$100	_____
RETIRED or PART-TIME EMPLOYED MEMBERSHIP (circle one).....	\$ 25	_____
STUDENT or UNEMPLOYED MEMBERSHIP (circle one).....	\$ 15	_____
ALL FOREIGN MEMBERSHIPS (INCLUDING CANADA & MEXICO)..... FOR ADDITIONAL POSTAGE ADD	\$ 8	_____
All payments must be in U.S. Funds using cash, U.S. Postal orders, or checks drawn on U.S. Banks.		
BENEFACTOR [\$2,500] or FRIEND [\$1,000] (circle one).....	\$	_____
☐ I am enclosing a DONATION to the "AWM GENERAL FUND".....	\$	_____
☐ I am also enclosing a DONATION to the "AWM ANNIVERSARY ENDOWMENT FUND".....	\$	_____

Indicate if you wish for your **contribution(s)/donation(s)** to remain **ANONYMOUS** ☐
Dues in excess of \$15 and all cash contributions/donations are deductible from federal taxable income.

INSTITUTIONAL DUES SCHEDULE

☐ CATEGORY 1 (includes 10 student memberships; 1 free ad; 25% off additional Newsletter & online ads*)..	\$250	_____
☐ CATEGORY 2A (includes 3 student memberships; 1 free ad; 10% off additional Newsletter & online ads*)....	\$125	_____
☐ CATEGORY 2B (includes 6 student memberships; 10% off Newsletter & online ads*).....	\$125	_____

ADVERTISING: Institutional members on Categories 1 and 2a receive ONE FREE job link ad or ONE FREE Newsletter ad (up to 4 lines) for the membership year Oct. 1st to Sept. 30th. All institutional members receive discounts on other eligible* advertisements (25% off for Category 1 and 10% off for Categories 2a and 2b). *Eligible advertisements: The institutional discount applies to both classified and job link online ads as well as classified *Newsletter* ads, but it does not apply to *Newsletter* display ads. If institutional dues have not been received by the invoice date, the full advertising rate will be charged. *Newsletter* advertising deadlines are the 1st of every EVEN month. All institutions advertising are Affirmative Action/Equal Opportunity Employers. **STUDENT NOMINEES:** Institutions have the option to nominate students to receive the newsletter as part of their membership. List names and addresses of student nominees on opposite side or attach a separate page. [ADD \$15 (\$23 for foreign members) to the listed institutional rate for each student add-on over the initial 10 students for Category 1; over the initial 3 students for Category 2a & over the initial 6 students for Category 2b]. For more advertising/membership info see www.awm-math.org

☐ Indicate if GIFT membership FROM: _____

TOTAL ENCLOSED \$ _____

ADDRESS CORRECTION FORM

- ☐ Please change my address to:
☐ Please send membership information to my colleague listed below:
☐ No forwarding address known for the individual listed below (enclosed copy of label):

(Please Print)

Name _____

Address _____

City _____ State _____ Zip _____ - _____

Country (if applicable) _____ E-mail Address _____

Position _____ Institution/Org. _____

Telephone: Home _____ Work _____

- ☐ I **DO NOT** wish for my AWM membership information to be released for the **Combined Membership List (CML)**.

MAIL TO:

Database Corrections
AWM
4114 Computer & Space
Sciences Bldg., University
of Maryland, College Park
Maryland 20742-2461

or E-MAIL:

awm@math.umd.edu

AWM
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