PRESIDENT'S REPORT

AWM ELECTION!!

The ballot is enclosed between pages 10 & 11. Be sure to vote! Ballot due: **December 1, 1997**

AWM Election

As the box to the left reminds you, the ballot for election of members of the AWM Executive Committee is included in this issue. Positions for Member-at-Large are contested, so it is important to vote. Statements from the candidates appear on pp. 7–9.

Workshop Insert Inside!

We include in this newsletter for the first time ever a special insert on the AWM Workshop, capitalizing on the fine event which was held at the SIAM meeting in Stanford in June and providing for us a permanent record of the activities. We hope those of you who attended the workshop will enjoy recapturing the memories and experiences there, and that those of you who didn't come will sense the enthusiasm of the participants and the wonderful ambience of Stanford.

The insert appears as the center twelve pages of this newsletter. We will make extra copies of the inserted report to distribute to younger women and to others. We are grateful to ONR for making a special contribution to cover the costs of printing and distribution of this insert. We thank AWM Newsletter Editor Anne Leggett for her excellent work on this newsletter/insert (which took far longer to produce than most newsletters). Thanks also to Suzanne Lenhart (University of Tennessee) and Wendy Hines (University of Nebraska) for their assistance.

The Baltimore Joint Meetings

First, on Wednesday, January 7, 8–11 A.M., AWM and the Mathematicians and Education Reform (MER) Network are co-sponsoring a session within the MER session on the issue of professional evaluation. In particular, the evaluation of teaching and service seem to us to be of considerable interest to a large portion of the mathematical community. We are therefore delighted to announce that Richard

IN THIS ISSUE

Phillips, past chairman of mathematics at Michigan State University, and Pamela Cook, present chairman of mathematics at the University of Delaware, will each speak at the joint session on some aspects of this issue.

Later that day, the AWM panel on Mathematicians and Families, which I will moderate, will feature Deborah Tepper Haimo, UC San Diego; Craig L. Huneke, Purdue University; Rhonda J. Hughes, Bryn Mawr College; Stephen F. Kennedy, Carleton College; Suzanne M. Lenhart, University of Tennessee, and Dawn A. Lott-Crumpler, New Jersey Institute of Technology.

The panelists will introduce themselves and speak briefly on their families and their lives in mathematics, where the term "family" can be taken however they wish. In particular they might address how their families influenced and supported their lives in mathematics and vice versa. After the initial introductions, the audience will be invited to comment and also to ask questions of the panelists.

After the panel discussion, the Alice T. Schafer Prize honorees will be recognized. Next we will have the AWM business meeting and the Noether dinner. As usual the AWM will throw a party Wednesday night after the Gibbs lecture. Dusa McDuff will give the Noether lecture on Thursday on "Symplectic structures: A new approach to geometry."

At the Joint Prize Session and reception on Thursday, we will present the winners of the Alice T. Schafer Prize and the Louise Hay Award.

The AWM workshops will be held on Saturday, January 10. Posters will be presented by outstanding graduate students on their thesis research, and recent Ph.D.'s in mathematics will give twenty-minute talks on a variety of mathematical topics. There will also be a panel discussion.

Please be sure to attend the AWM events, to meet friends, become enlightened and cheer for the wonderful new mathematicians we are featuring at the workshops! See page 18 for a complete schedule of AWM events.

Three of the other invited addresses at Baltimore are to be given by women. Marjorie Senechal of Smith College will give an MAA Invited Address Wednesday, January 7, 1998, 2:15–3:05 P.M. on "The symmetry mystique." Gail F. Burrill, President of the National Council of Teachers of Mathematics, University of Wisconsin, will give a joint AMS-MAA Invited Address Thursday, January 8, 11:10 A.M. to 12:00 P.M. On Friday, January 9, 10:05–10:55 A.M. there will be an AMS Invited Address on "The speed of mixing in chaotic dynamical systems" by Lai-Sang Young, University of California, Los Angeles. Young is a past winner of the Ruth Lyttle Satter Prize in Mathematics for her investigation of the statistical (or ergodic) properties of dynamical systems.

The NAM Banquet is Friday, January 9, 1998, 6:00–8:30 p.m; NAM is having a panel discussion Saturday, 9:00–10:00 A.M., followed by a business meeting. The AMS Banquet will be

Saturday, January 10, 7:30–10:00 P.M. The MAA Board of Governors and the AMS Council meet Tuesday, January 6. The Mathematicians and Education Reform Network Banquet will be Thursday, 6:30–9:00 P.M.

SKHS Days Funding Renewed!

The National Security Agency has renewed the Sonia Kovalevsky High School Days grants for workshops at colleges and universities for female high school students. We urge you to apply to give a day of enlightenment and intellectual stimulation for high school girls at your institution. The deadline for submission of applications is January 20, 1998. See page 14 for more information.

A Presence by Women at the ICM

The 1998 International Congress of Mathematicians (ICM) will be held in Berlin August 18–27. In cooperation with the ICM committee, the European and other groups for women in mathematics, including AWM, have arranged a special Noether Lecture to be delivered by Cathleen Morawetz and introduced by Irene Gamba of the University of Texas. A special committee consisting of Bhama Srinivasan of the University of Illinois at Chicago (chair), AWM Meetings Coordinator Bettye Anne Case of Florida State University, and Christine Bessenrodt of Magdeburg is planning a panel discussion involving women from several countries. We also plan to hold a lunch meeting.

More information on the ICM appears on page 17. The NSF is again providing funds to be administered on a competitive basis for U.S. mathematicians to attend the Congress.

Best wishes,

Sylvia

Sylvia Wiegand
September 25, 1997
on sabbatical at MSU
East Lansing, Michigan

LAURA MAYER: 1957–1997

Laura Mayer studied mathematics at Smith College, graduating *summa cum laude* in 1979. She began graduate school at Berkeley, and after one year she moved to Yale to become Angus Macintyre's student in model theory. She received her Ph.D. in 1985. The year before she finished her degree she married David Marker, and to join him she became a visiting student at Berkeley in 84–85, thus bracketing her graduate studies with Berkeley years. Laura's first job was at Beloit College. She enjoyed teaching there, and her students thrived under her care.

But after four years she accepted a position at Loyola University in Chicago — first temporary, then permanent. This was a happy and practical choice, since her husband had a position in the same city. She quickly became an asset to the faculty at Loyola and formed close friendships with several colleagues there. An important milestone for Laura was being awarded tenure at Loyola in 95–96. At Loyola, she was perhaps best known outside her department for her leadership role in the Women in Science Enabling Research (WISER) program, where an internship fund has been established in her memory.

Laura's thesis work involved o-minimality, an area which appealed to her and which has since grown in importance, witnessing her good taste. All her work is marked by a certain elegance, such as the main theorem of her thesis which established a dichotomy between a set of sentences having finitely many models (of a special sort) and uncountably many models. Her interests continued to broaden after her thesis, and she had a second interest in computability. Her final work was, in my opinion, her very best, with a technically difficult and natural result characterizing models with few substructures. This project was done jointly with M.C. (Chris) Laskowski, over a time disrupted by her illness, sustained by her courage, and fed by their mathematical successes along the way.

Laura's first bout with cancer began in 1991, her diagnosis occurring near her 34th birthday. She became active in a breast cancer support group, where she found ways — ever the teacher — to help other women understand and take charge when possible of their medical situations. Laura resolutely resisted allowing cancer to take over her life throughout the course of her treatment. Her love of life was fierce and uncompromising. Time after time she quietly summoned the strength to celebrate special occasions and to continue her professional life, with a determination that her friends could only witness with awe.

In late February of this year it became clear that Laura's pluck could carry her no further. Laura died March 23, 1997, at home in the care of her husband and of her sister Beth. She missed another big milestone on her list by half a year: she would have been 40 today.

The memorial service at Loyola filled to overflowing, both with attendees and with admiring testimony to her high value — as friend, family member, colleague, teacher, mentor, and sympathetic listener.

On the day of the service, Laura's thesis advisor Angus Macintyre wrote:

> Laura came into my life in the early 1980's at Yale. These were times of exuberance in our subject, from which came friendships and ideas that will endure. In many places today, far from Chicago, there are friends of Laura, thinking of carefree days in New Haven, or Cape Cod, or Berkeley, or Chicago. As I do, they will take some comfort from these golden days.
>
> But I think of Laura also from the special perspective of having guided her first research. There she had some disappointments, as her first project turned out to be an impossible one. Already then she showed her special grace, and quietly took up another topic, on which she was soon successful. I remember vividly her Ph.D. qualifying exam at Yale. Igor Frenkel, fresh from a different culture, began his questioning of her by inviting her to explain what was the Fourier transform of a distribution. I almost fainted. But Laura did not panic, and with a little help from me the exam was steered to more congenial topics.
>
> I saw her then as a fine young woman, particularly high-principled, and with a curiously attractive sense of humor. Later, as she began to face up to her illness, I began to appreciate how wonderful she was. From Laura and Dave I have learned most about courage and dignity. These are the values one wants to transmit to one's children, and mine have, I think, understood what a privilege it has been for me to be Laura's friend.

Carol Wood, North Eastham, MA, September 16, 1997

Lisa Traynor, a former student, wrote:

She was the first woman mathematics professor I ever had — in fact she was one of the two women professors I ever had during my nine years of undergraduate and graduate mathematical studies. One of my favorite classes at Beloit was a logic course that Laura taught. It was a small class of four students, and it was taught in a modified Moore method. This means that the four of us essentially started from scratch and developed the theory ... with a great deal of Laura's coaching. The first time I ever felt like a potential mathematician was during that course.

Laura was always so easy to talk to. I'm amazed at how many of her stories about graduate school and mathematics I still remember. One particularly funny one I remember was about an experience she had while being the only woman at a dinner gathering of researchers. After dinner, she got up and followed "the line." She realized, in time, that the line was headed to the men's bathroom. Many of these informal stories helped broaden my viewpoint of what the mathematical environment would be like outside a small college in Wisconsin.

I currently am an assistant professor of mathematics at Bryn Mawr College. Looking back on it now, I have a better understanding of how hard it must have been for her during those years to commute from Chicago and deal with demanding students while attempting to continue with her research.

I am sad that she did not have more years to interact with students and pursue her love of mathematics.

Zoe Chatzidakis, one of the Yale group, advised me to report three things: "the good times at Yale," "how Laura took care of everyone," and "how she loved Cape Cod." As Angus mentions, the Yale model theorists of Laura's era formed a close community — students, faculty, and visitors. There was a seamlessness between social and professional life, with many hilarious times about which reminiscences bore nonparticipants to this day. After the Yale years were over, Laura and Dave's home in Chicago became a favorite gathering place, of unequalled hospitality. Over time I observed how Laura quietly sustained each of us. Whatever a friend of hers cared about — music, family, mathematics, movies, etc. — became of importance to her as well, or so she made one feel. Her wry humor and offhand manner made her many kind gestures easy to accept, indeed her subtle kindnesses more often than not went unnoticed by the beneficiary.

My most vivid images of Laura are set on Cape Cod, beginning with the uproarious weekends of her student days. Later Laura drew unfathomable strength from various sources, and one source was surely the Cape. Her longest visit here was the summer of 1995, when we were neighbors for six weeks, often joined by family members and also members of the model theory family. Laura combined work here with many small pleasures, such as reading (of course), baking pies (excellent pies), playing cards (undauntedly but poorly), walking the Corgis at low tide, and going for brisk swims with the other women, while all the men cowered on the shore. It was tremendous fun to be Laura's friend; she gave generously to her friends, and I learned much from her. I just realized that the previous sentence has the tone of a student evaluation. There's a reason for this: Laura was a great teacher.

Editor's note: Laura was one of my dearest friends. We talked, we shopped, we shared the good times and the bad — all those things friends do. I miss her.

As Carol mentioned above, the Mayer Fund has been established in her honor to support summer research opportunities for young women. The internships are targeted to provide lab experience to students who are not necessarily science majors, to introduce them to science. Contributions to the fund may be made by check payable to Loyola University Chicago (Mayer Fund on the note line, please) and sent to Carolyn Farrell, B.V.M., Gannon Center for Women and Leadership, Sullivan Center 200, Loyola University Chicago, 6525 N. Sheridan Road, Chicago, IL 60626.

CORRECTIONS

Lisa Jeffrey's position is Associate Professor, not Assistant Professor as listed on page 15 last issue. We regret the error.

In Beth Ruskai's AMS election statement last issue, she stated that "from 1990 to 1995 enrollment in calculus *decreased* by over 7,000 students at doctoral mathematics departments and by almost 10,000 at all four-year institutions." In fact, she has learned that she understated the problem by a factor of 10! The correct figures (from the latest CBMS report) are a decline of over 70,000 at doctoral mathematics departments and 100,000 at all four-year institutions. This information and much more

may be found in Don Rung's article in the September *Notices*, p. 924, Table 1.

In a picture on page nine of last issue, Cora Sadosky is talking with Professor Idris Assani from the University of North Carolina at Chapel Hill. At her back is Professor Jan Persens from the University of Western Cape (South Africa), elected, during the period of the joint meeting, new President of the South African Mathematical Society.

LETTER TO THE EDITOR

Recently I collected a small amount of data on the numbers of women graduate students in mathematics at some of the Group I U.S. universities. The numbers have been depressingly small at my own institution, Columbia University, and I thought that maybe our competitors were doing better and we should find out and understand why. Here is the data I gleaned after a few telephone calls on the entering first-year graduate classes in September 1997 at a sample of the universities which were rated near or at the top among U.S. research-oriented universities, in the most recent study by the National Research Council (National Academy of Sciences):

SCHOOL	Women	Men
Princeton	1	12
Columbia	1	9
Stanford	0	10
Harvard	2	5
MIT	5	20
Chicago	1	12
Yale (9/96)	0	5
Michigan	3	15
Berkeley	13	33

Since the schools which I picked are a sample of the best in the U.S. in the sense of having the strongest research faculty, the implications for the future are clear: women aren't getting the kind of education they need to get the best start in mathematical research.

Some years ago it would have been easy to ascribe this kind of data to prejudice. It's my personal observation that prejudice was once widespread, but also that it isn't the predominant factor any more. My own institution has had some truly top women students, and they are noticed. Even if their numbers are small they are visible in classes, in seminars and in the lounge, and most mathematicians are responsive to talent. Rather, I suspect that the applicant pool for the schools I listed is simply very small, and these few schools (and a few I missed) are competing for a small number of women students who are both good enough and also courageous enough to apply. So, even if my colleagues all had the best good will in the world (and I am not saying they all do), there might not be much to do to improve the numbers except to lower standards, and past experience has shown that doesn't work.

I have taken this matter to my colleagues. I am trying to get them to do some more active recruiting. Now I take it to the AWM and to those of you who are teaching and so are in a position to guide women students.

I truly feel that this is a very serious matter. The schools in question are rated as tops because of the quality of their research faculty, their stimulating array of seminars, and the talent of their graduate students. They are very lively places to be. If women are excluded from that kind of education, their entire careers are at stake. Yet I suspect that many women are choosing to go where they feel comfortable and where they see a critical number of women and enough faculty role models so that they can picture themselves in the setting. But if so, they may at the same time be denying themselves something which is much more important than feeling good, i.e., getting the best possible education.

For many years the focus within the AWM has been on support systems. I tend to think that it's now time to de-emphasize feeling comfortable and looking for role models and to put the emphasis elsewhere: on how to focus on one's own natural interest in and pleasure in mathematics (which is the only thing that really makes it all worthwhile), on how to develop a thick skin, on learning how to put up with a little loneliness and some failures, and on encouraging women to aim for the most challenging school they can handle.

Sincerely,

Joan Birman
Columbia University

AWM ELECTION

This year, we are electing a President-Elect and three Members-at-Large of the Executive Committee. The positions of Member-at-Large are contested, so we encourage you to vote. Statements and biographical data provided by the candidates follow. Those elected will take office on February 1, 1998.

You should find a ballot between pages 10 & 11 of this *Newsletter*. Also, family members who do not receive the *Newsletter* will receive a ballot by a separate mailing. Institutional, affiliate, and corporate memberships do not carry voting privileges. Please note that a validating signature is required on the envelope; if the signature does not appear, your votes will not be counted. Ballots must be received by **December 1, 1997**. [envelope attached to ballot.]

If by some mishap you do not receive a ballot or you spoil your ballot, a replacement ballot will be supplied on request and will be sent by first class or air mail. However, the deadline for receipt of ballots will not be extended to accommodate these special cases. For a replacement, contact Dawn Wheeler at awm@math.umd.edu or 301-405-7892.

PRESIDENT-ELECT

Jean Taylor, Rutgers University

I'm told I should use my statement to introduce myself, since the position of President-Elect is unopposed. (Incidentally, I was one of those who spear-headed the change to contested elections for President in the AMS, and if I find support for the idea I may try to do the same for the AWM.)

I'm a Professor at Rutgers University, and I work in geometric analysis, in particular on the mathematics of equilibrium and growth shapes of crystals. I did not follow a straight path into mathematics; rather, I was a chemistry major at Mount Holyoke and then was in the middle of my thesis in microwave spectroscopy at Berkeley when S.S. Chern introduced me to differential geometry. I promptly switched to mathematics. After two more changes of university, I got my Ph.D. at Princeton University (one of the first women in mathematics to do so) in January 1973. I was an Instructor at MIT 1972–73 before coming to Rutgers. I'm much interested in teaching as well as research; in particular, I've been a consultant with Project NExT, run by the MAA.

I've been a member of AWM essentially since its beginning: I remember going with my then-future sister-in-law, Linda Almgren Kime, to meetings of women mathematicians in the Boston area in 1972–73. I've also been a member of AMS, MAA, SIAM, and AAAS for varying but long lengths of time. Within the AMS, I've been a member-at-large of the Council, a member of the Executive Committee, the AMS Council representative to JPBM, and a Vice President, as well as a member of numerous committees. While many appreciate my willingness to work hard, I sometimes found myself at odds with the majority of the AMS Council, as my good friend and former AWM President Cora Sadosky can attest! However, I didn't mind too much, since I usually was on the side of the angels (such as Lee Lorch, another long-term AWM member and thorn in the side of those less holy). For the past few years, I've been a member of the Board of Directors of the American Association for the Advancement of Science and have found out how wonderful it can be to work with a group of like-minded men and women. All four of the recent and incoming Presidents of AAAS have been women!

We live in interesting times. On the one hand, I read that the salary differential between men and women is now growing, and there is a retreat from affirmative action. The "baby X" videos on display at AAAS headquarters show how people play differently with the same baby, based on whether they are told the baby is a boy or girl, and how they are awkward and uncomfortable when they are supposed to play with the baby without knowing its sex. On the other hand, there is a growing awareness of the pervasiveness of sexual harassment in general, and of the sheer extent of the derogatory remarks directed at girls within schools, and awareness is the first critical step in changing things. I believe the AWM has a role to play in keeping such matters before the public eye. I think we should also increase the profile of AWM; one good place to start is the AWM web page. We should have lots of links to sources of information on women in mathematics and make sure that other math organizations have links to it.

In spite of the seriousness of its purpose, AWM is a fun organization. Its parties are usually the social highlight of the annual joint meetings. (Perhaps one of my platform planks should be *more parties* at more math meetings!) Its other activities are usually well-attended, and people seem to enjoy

themselves. And there is always interesting stuff in the newsletter.

The past year has been a very difficult one for me: my husband of over 23 years, Fred Almgren, died earlier this year. As I slowly reintegrate the pieces of my life, my energy level is returning, and I am looking forward to joining the leadership of the AWM.

MEMBER-AT-LARGE

Patty Anthony Ashford, NSA

I recently married my friend Marvin W. Ashford, Jr.; hence, I have a new name, Patty Ashford. I am a graduate of Arkansas State University, New York University (Courant Institute) and Howard University. Presently, I am very happily employed by the National Security Agency (NSA). I would like to be a member-at-large of AWM to enlighten women about doing mathematics outside academia. I have learned a lot of mathematics at NSA and I continue to learn each day, which is important for me as I am a young mathematician. I have seen many applications of mathematics by working very closely with other mathematicians, engineers and computer scientists. I encourage mathematicians of all ages to share the experiences that I have had at NSA.

Lucy Garnett, Baruch College, CUNY

When first approached to run for the position as member-at-large, I thought that a mistake had been made; after all I wasn't "doing mathematics" any more. Indeed I teach computer information systems, which is not even the same as computer science. Upon further reflection I decided to accept the nomination.

I had decided upon a mathematical career fairly early in my schooling as evidenced by the phrase "pure mathematician" under my high school yearbook photo. By happenstance the best math and science students at East Meadow HS were female. As an MIT undergraduate math major I did not find the same sisterhood. The counseling given to me by my sophomore year course advisor, upon learning that I was to get married soon, consisted entirely of what types of foods men liked to eat (meat and potatoes).

The year that I obtained my math Ph.D. (proving an ergodic theorem for foliations) I learned how to program computers to calculate Hausdorff dimensions. This positioned me for an academic appointment teaching computers as a member of the Baruch College Department of Statistics and Computer Information Systems. What I've studied, researched, and taught over the years has by necessity changed to keep apace with new developments, and many of my undergraduate and graduate students have made successful careers. My research gradually shifted from mathematics to information systems, starting with an application of mathematical logic to database theory and extending to my current interest in client/server technology. The motivating examples come from the business world.

My migration from mathematics to my current position was a very natural course, one that leveraged my mathematical skills, education, and connections and a course that I imagine some of you might undertake. Whereas an executive committee composed of many with my background would not be appropriate, I think having one of me would be beneficial.

Gail Ratcliff, University of Missouri – St.Louis

The AWM continues to play an important role in the mathematics profession. We help to raise awareness in the public and the profession of the accomplishments of women mathematicians. We also provide mentoring and encouragement of women and girls who aspire to a career in mathematics. At the celebration of the 25th anniversary of the AWM, Constance Reid said: "I hope that sixty years from now there will no longer be any need for an organization specifically designated for women in mathematics." Although I share these sentiments, women are still underrepresented at most levels of the profession — there is still a need for the AWM, and I would like to continue to play an active role in its development.

I received a B.Sc. from Sydney University in 1978 and a Ph.D. from Yale University in 1983. Since then, I have been working in the Department of Mathematics and Computer Science at the University of Missouri–St.Louis. My research area is Lie groups and representation theory. My involvement with the AWM includes serving as co-organizer of the AWM Workshop in Baltimore, 1998, and co-organizer of the Julia Robinson Celebration at MSRI last year. In addition, I am currently a Member-at-Large of the AMS and serve on the Committee on Publications.

Paula Russo, Trinity College

Associate Professor of Mathematics
Director, Trinity College Science Alliance
President, Connecticut Chapter of AWIS

I am very excited at the prospect of serving on the Executive Board of the AWM. I have a strong interest in the particular issues that effect women in all areas of science and would welcome the opportunity to be more than a silent member.

There are three areas where AWM can make a difference. The first is in working to improve the visibility of senior women mathematicians. Although some progress has been made here, there is often still a noticeable lack of women speakers at major meetings. Secondly, we need to offer support to women who are at the beginning of their careers. This may be financial support, networking opportunities, or workshops on career development. Whatever form it takes, this support is critical as we still see a discrepancy between the number of women Ph.D.'s versus the number of women professors.

Lastly, and perhaps most importantly, we need to take an active role in encouraging young women to study mathematics. We cannot sit back and expect others to do this. The future of science and mathematics depends on our ability to attract students to our field, and these must represent the population, over 50% women. Even the funding agencies have recognized this and have committed significant monies for educational initiatives. This is and will continue to be an important issue as we move into the next century.

Tilla Weinstein, Rutgers University

My long term faculty positions have been at UCLA '59–'68 and at Rutgers, since '70. Until Rutgers united its college faculties in '81, I was at Douglass College (a school for women), and served as Chair of the math department there '70–'73 and '78–'80. I was at Boston College '69–'70 and visited MIT '68–'69, University of Maryland '83–'84, UC Berkeley spring '81 and CUNY Graduate Center '86–'87. I was a temporary member at the Courant Institute '64–'65, fall '77 and fall '91 and a member of the Institute for Advanced Study spring '74 and spring '95.

My AWM activities have been limited to participation in two Winter Meeting panels (on Affirmative Action in '73 and on Lipman Bers as Mentor in '84), and service on the Noether Lecture Committee '83–'86, '94–'96 and on the AWM Executive Committee '86–'90.

Mathematically, I work on the differential geometry of surfaces. In addition to many papers, I have a book, *An Introduction to Lorentz Surfaces*, De Gruyter Expositions in Mathematics (1996), dealing

---

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. International travel must be on U.S. flag carriers whenever possible.

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.

Applications. There will be three award periods per year, with applications due February 1, May 1 and October 1. 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.

For more information, contact AWM by phone (301-405-7892) or email (awm@math.umd.edu). Applications via email or fax will not be accepted.

---

with the indefinite metric analogs of Riemann surfaces. Recent experience with four thesis students (and a year '96–'97 as Graduate Director for the Rutgers Math Department) have made me especially aware of the problems faced by younger mathematicians these days.

Through its wide range of activities, AWM promotes the fullest possible participation of women in mathematics and celebrates the many mathematical accomplishments of women. These are difficult times. Pressures resulting from inadequate resources are likely to exacerbate the inequities in opportunity and reward that AWM has worked so hard to eliminate. Clearly, AWM must continue the fight for fairness and must help women to adjust successfully to new realities in the job market. However, the general health of the profession may well determine more than anything else the extent to which women in mathematics will flourish. Thus AWM must work with other organizations to restore the broad-based support of basic research (by government, industry, academia and private sources) and to reverse the dangerous trend toward insecure, underfunded faculty positions offering little chance for individual professional development.

BOOK REVIEW

Irena Koprowska, **A Woman Wanders through Life and Science**, State University of New York Press, Albany 1997. xix+306. ISBN 0-7914-3177-0 (cloth), $27.50.

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

The book under review is the first in a projected SUNY Press series, Voices of Immigrant Women. Irena Koprowska is a Polish-born pathologist, cytologist, and cancer research pioneer. She fled Poland during the German invasion in 1939 and eventually came to New York (via France, Spain, and Brazil) in 1944. Pulled this way and that by the pressures of war, marriage, motherhood, and career, her story — as the title suggests — has a meandering quality to it. Given the social, political, and cultural conditions under which she has lived, her achievements are truly remarkable. While the

SUNY series ostensibly concerns itself with the uniqueness of the immigrant experience, it is clear that sexism, perhaps more than nationality, has posed the greatest barrier to Koprowska's personal and professional happiness in this country. The book illustrates, in vivid and personal detail, the devastating effects of institutional and personal sexism and Irena Koprowska's often agonizing perseverance in the face of it all.

Koprowska's autobiography is unsophisticated, touching, and often painful to read. She was just twenty-two years old and had barely completed medical studies at Warsaw University when she left Poland in 1939. Just a year before, she had married a medical school classmate, Hilary Koprowski, whose feelings for her both before and after the wedding can best be described as ambivalent. During the early war years, they wandered through Europe and the Americas in search of a permanent haven and were often separated. During this time, Irena gave birth to a son under difficult conditions, while Hilary — seemingly ambivalent about his medical career as well — pursued a budding career as a concert pianist.

It was Irena — not Hilary — who took the first steps toward establishing a medical career during the war years. In a decidedly unconventional "internship," Irena worked first as a psychiatric consultant in a lunatic asylum in France; for this, her first job as a physician, she had no training and very little guidance. Later, reunited with her husband in Rio de Janeiro, she worked at a variety of unskilled jobs until she was finally hired as an assistant pathologist at Hospital Miguel Couto, where she performed hundreds of autopsies, developing expertise largely without benefit of textbooks or formal instruction.

Hilary, too, eventually began a career in medicine, but by a less deliberate route. He had been working as a piano teacher when he learned through an acquaintance of an opening at the Rockefeller Foundation Labs in Rio. There he began his career in biomedical research by working on a yellow fever vaccine. Inspired by his Rockefeller colleagues, Hilary decided to move the family to New York City with a view to advancing his research career in the States.

At the point at which Hilary made this decision, Irena writes:

> I had just been offered an assistant professorship at the University of Rio de Janeiro Medical School. My acceptance of this offer would

please fold and place ballot in envelope

AWM BALLOT: Must be received by **December 1, 1997.**
Only individuals who are members of AWM are eligible to vote.

List of Candidates

President-Elect: (vote for one)

☐ Jean E. Taylor

Members-at-Large (vote for **three** only):

☐ Patty Anthony Ashford ☐ Paula A. Russo

☐ Lucy J. Garnett ☐ Tilla Weinstein

☐ Gail Ratcliff

Please VALIDATE your vote by signing your name on the outside envelope.
Unsigned ballots will not be counted.

provide me with an academic position, professional status, a secure job, and significant career advancement. I feared having to begin my medical career all over again in another country. But I was not about to stand in the way of Hilary's future; there was absolutely no question about my accompanying Hilary to the United States, even though I regretted relinquishing my own opportunities in Brazil. Also, I had come to feel at home in Brazil; I spoke Portuguese, had made friends, loved the sounds of the samba, and would miss it all very much. [pp. 128–9]

This is just one of the many passages in the book where the painful ambivalence she feels about her role as a woman comes to the fore.

Having arrived in New York, Hilary had the extraordinary good fortune of landing a series of increasingly prestigious positions in research laboratories devoted to vaccine research. Irena, by contrast, obtained her first medical position as a "voluntary assistant" in the pathology department at Cornell's medical center in New York City. She gradually progressed to paid positions and obtained credentials as a pathologist before coming at last to work for the man whom she describes as her greatest mentor, George Papanicolau, developer of the Pap smear. In her years working with him at Cornell, she became a talented researcher and diagnostician specializing in the early detection of cancers of the cervix, uterus, and lung.

Meanwhile, Hilary Koprowski gained in notoriety, status, and salary as one of the developers of the first oral polio vaccine. At the same time, Koprowska struggled under sometimes hostile working conditions, developing the wisdom and savvy to publish her research results early and often. In the early fifties, she gave birth to a second son, accepted a promising position at SUNY's Downstate Medical Center, and obtained her first research grant from the National Cancer Institute.

But after just two years in this position, Hilary decided to accept a prestigious research directorship in Philadelphia, and once again, Irena felt she had no choice but to leave a workplace she loved:

> For the two years since I had left Cornell in 1954, I had been assistant professor of pathology at Downstate and director of the Cytology Laboratory at King's County Hospital.... I was settled, respected, and felt comfortable in the Department of Pathology, where I also taught medical students. I had absolutely no desire to leave my job, *but I would never seriously consider remaining in*

> *Englewood [New Jersey] and have Hilary commute from there to Philadelphia.* [p. 214, emphasis added]

The move to Philadelphia marked the start of a period of terrific adversity for Irena Koprowska. In her first job at Hahnemann University, she attained tenure but watched as her department head tried to block her promotion to full professor, offering it instead to a colleague who had more financial obligations, more seniority, and decidedly fewer publications. In the end she became the first female full professor at Hahnemann (around 1962), but at considerable personal cost.

In 1970, she moved on to what promised to be a better position, at better pay, at Temple University; but again, conditions proved to be mixed. With the advent of Title IX in 1972, she received a substantial raise in pay, but at the same time her department chair withdrew much of his support for her laboratory technicians. When at last she took her first sabbatical in 1975, she returned to find that her laboratory facilities had been taken away from her. Her response to this outrageous turn of events was not outward protest but inward reflection:

> After weeks and months of asking myself what exactly made me most unhappy when I had to relinquish my research, I found the answer. I had become deprived of the means of expressing my creativity. Perhaps I could satisfy this need in some other way and regain happiness. [p. 275]

In response to this prejudicial behavior, Koprowska rejected the idea of bringing her grievance to the courts, turning instead to expository and autobiographical writing as a means of "rechanneling" her creativity.

As an American woman born in the late fifties, I grew up as a witness to and a beneficiary of the activism of the women's movement. I am not of Koprowska's generation; nor can I truly understand what it means to have been born in Poland, to have negotiated so many different countries and cultures, and to have arrived personally and professionally in the social and cultural turbulence of post-World War II America. Viewed in this light, the many acts of discrimination, from the minute to the egregious, which Koprowska faced during the later years of her career, are decidedly more outrageous than her seemingly too-willing acceptance of such shabby treatment.

Despite the institutional adversity she experienced in the later years of her scientific career,

Irena Koprowska did win international notoriety and recognition for her many contributions to the early detection of cancer. Her successes are truly remarkable. I recommend her book as an inspiration — but also as a cautionary reminder of our recent past — to anyone who is concerned with the advancement of women in science.

EDUCATION COLUMN

Mathcamp: A Summer Camp for Mathematically Talented Students

Mathcamp (or Canada/USA Mathcamp) began in 1993. It is a supplementary mathematics training program for students who are thirteen to eighteen years old. About 60% of the students are from the U.S. and the remainder from Canada and abroad. With about 100 students, Mathcamp is the biggest of the summer camps on the continent. There are other camps running at Boston University, Ohio State, Southwest Texas and Stanford. Mathcamp is the only program not fixed at one campus; the returning students love the change of locale. It is a pure mathematics program run in answer to the following question: What is the proper early training for the future mathematician? Well-known mathematicians make up its faculty; graduate students selected nationally for their communication skills and academic distinction serve as mentors.

Why a summer program? A mathematics class in school focuses on acquisition of basic skills; highly gifted students forced to go more slowly for the sake of the other kids are bored and under-served. The training at Mathcamp goes beyond drill in problem-solving. It is a three-fold mathematical re-education complementing the high school syllabus: (a) acquiring a confident familiarity with those essential concepts that are not in today's high school mathematics curriculum; (b) learning to write properly in the language of mathematics; and (c) doing mathematics proofs employing the techniques that mathematicians use. The gifted have social and emotional needs which cannot be met adequately in a regular school setting. The greatest social need of the gifted is for true peers — those who are similar in ability and interests. The opportunity to discuss a topic deeply and passionately in a summer mathematics program is not typical in regular classrooms. The gifted find that Mathcamp is filled with people who are like them and who like them. It is a place where they fit in. In Russia and Hungary there are schools for the mathematically talented. Whether or not the schools are the reason, these countries are at the forefront in mathematics achievement at the high school level. Summer mathematics camps compensate for such schools. Regular liberal arts schools supplemented by summer programs may be more desirable for the gifted student than a year-long math school. Additionally, such schools cannot be located in all communities, and therefore it is expensive for parents to send students to them.

There are few women in gifted mathematics programs, and girls were only 9% of the students attending Mathcamp in 1997. While the admission criteria should not be changed to increase this percentage, Mathcamps is planning to encourage female math teachers to ask girls to apply. A few need-based scholarships allotted only to girls would also help to address this issue. In the Mathcounts competitions for 7th and 8th grades, the top four winners nationally are called national winners. In its fourteen-year history, there have been no female national winners. Among the 182 top scorers in the American Invitational Mathematics Examination (AIME) in 1997, only seven were girls. According to Professor Walter Mientka, Executive Director of the American Mathematics Competitions, when these 182 students wrote the USAMO (USA Mathematics Olympiad), no girl was in the top eight who went on to represent the USA in the IMO (International Mathematics Olympiad). He regretted that in the history of the USAMO, no girl qualified to go to the IMO. He stated that there are indeed some very strong girls in the pipeline for the next few years. In this context we note also that in the history of the Putnam undergraduate competitions there have been no female Putnam Fellows.

What can be done to increase the participation of women? Much has been written about this. The issue exists by virtue of the assumption that boys and girls can excel in math equally. The observed

situation, however, is that girls are better at verbal skills, and boys at math. But America already tries to compensate the male handicap by ensuring that reading is an important component of primary school. It is the dominant view that girls lag behind boys not at this early level but from the onset of adolescence. What is being done at the middle schools to compensate the girls? There are studies showing that teachers tend to favor boys by calling on them more often and coaxing math out of them; there are studies showing that girls do better at math when teachers are sensitized to the gender issue. Teachers and parents are then part of the answer. The rise of charter schools and home schooling attest to this, but as many remedies go, these too may be temporary fixes until the attitude of the general population as presented by the teachers changes to neutral and the public school once again becomes the favored forum of early learning. A summer camp such as Mathcamp that takes students as young as thirteen will help address the issue at the right stage for the girl — if only the bright girl is at the camp. Every summer program I know provides an atmosphere that is conducive to participation by girls. The professors and mentors adequately represent both genders.

What is it that no camp can do for either boys or girls? Mathcamp is not a substitute for a caring school teacher who loves mathematics; a caring teacher is irreplaceable in the student's life. While the camp is supplementary training of the kind recommended in several national reports, it can rank only far below the supportive parent and the caring math teacher, in that order, for its role.

An unusual amount of physical energy is one important mark of a research mathematician. This partly explains the energy and enthusiasm of the Mathcamp attendees. In these attendees we behold future math professors and gifted teachers, and we treat them with utmost respect and care. We are humbled in their collective presence.

KRIEGER-NELSON PRIZE

The Krieger-Nelson Prize was inaugurated by the Canadian Mathematical Society to recognize outstanding research by a female mathematician. The first prize was awarded in 1995. As reported by Chandler Davis in the September–October issue of this *Newsletter*, Dr. Cathleen Morawetz gave the Krieger Nelson Lecture at the CMS Winter 97 Meeting in Winnipeg. The Award (in the form of a soap stone carving) was presented to her at the conference banquet. What follows is her acceptance speech.

On Receipt of the 1997 Krieger-Nelson Award

It is a very special honour to give the Krieger Nelson lecture and to receive this award. In the name of all women in mathematics I would like to thank the Canadian Mathematical Society for creating this award. Now that I am standing here I feel especially grateful and thoughtful.

I did not know the Nelson of the lecture title, so I cannot speak of her, although I heard a little of her at the first Krieger-Nelson Lecture. But probably I knew a good deal longer than anyone else here, Cecilia Krieger. Born probably in the late nineties in Poland she received her B.A. in Mathematics in Toronto in 1924 and completed a Ph.D. with Webber in 1930. And now I come to my first memory of her from, I think, Christmas 1930. My father was her colleague in mathematics at the University of Toronto. We had just returned to Canada from Ireland and Miss Krieger, as she was known to us children, took my sister and me to the pantomime. I hope I did not say so at the time, but I thought its lack of plot was very stupid (the pantomime in Ireland suffered the same defect). But there was no question that Miss Krieger was the kindest person I had ever met, and I probably did not say that either.

Cecilia Krieger had come to Canada with her mother and sisters to escape the persecution of Jews in Poland. She spent her life in Toronto teaching mathematics. Her principal mathematical contribution was the translation of the two books on topology by Sierpinski.

For many students of mathematics, she was the source of friendship and encouragement in every way. Her Sunday teas for students were famous for their sociability, intellectual conversation, terrific cakes and every now and then "matches": for example, she introduced my sister to the man who became her husband. I remember learning that she was also the sole support for many years of her mother and a handicapped sister. It must be added that she lived at a time when the prejudice against women meant that she was for over twenty years not promoted from her position as lecturer.

For my career she played a fundamental role. I have told this story before but I will tell it again. I would not be standing here but for Cecilia Krieger. I was in my final year at U of T. World War II had almost ended and there had been a call for teachers to go to India. The idea of living in an exotic country appealed to me and since I did not have any other ideas, that is what I was thinking of doing. But I ran into Miss Krieger one day as I crossed the campus and she asked me what my plans were. So I told her. She was horrified. "Why aren't you going to graduate school?" "I haven't the money," I said.

"Easily fixed," said Miss Krieger. She assured me that I could receive the Junior Fellowship of the Canadian Association of University Women. So before I knew it I was applying to graduate school and Miss Krieger (who was of course on the Fellowship Committee of the C.A.U.W. — I think even the Chair) had delivered.

I know I was not the only one who benefited from her energetic help, but her actions put me on the road. I wavered sometimes and I'm not sure I was always glad but I certainly am *now*.

SONIA KOVALEVSKY HIGH SCHOOL MATHEMATICS DAYS

The Association for Women in Mathematics has funds available through a grant from the National Security Agency (NSA) 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. Follow-up studies will track whether the participants go to college, what they major in, and what they do upon graduation from college.

We anticipate awarding approximately 15–20 grants of up to $3,500 each to universities and colleges; 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) budget; e) local resources in support of the project, if any; and f) tentative follow-up and evaluation plans.

Decisions on funding will be made in mid-February. The high school days are to be held in Spring 1997 and Fall 1997. Reports on the high school days are to be made to AWM within six weeks of completion.

Send *five* complete copies of the application materials to: Sonia Kovalevsky Days Project Advisory Committee, Association for Women in Mathematics, 4114 Computer & Space Sciences Building, University of Maryland, College Park, MD 20742-2461; email: awm@math.umd.edu; phone: 301-405-7892. Applications via email or fax will not be accepted. The application deadline is **January 20, 1998**.

ATTENTION APPLIED MATHEMATICIANS!

SIAM WORKSHOP FOR WOMEN GRADUATE STUDENTS AND POSTDOCTORAL MATHEMATICIANS

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

Over the past nine years, the Association for Women in Mathematics has held a series of workshops for women graduate students and recent Ph.D.'s (referred to as "postdocs" below) in conjunction with major mathematics meetings.

WHEN: The next workshop in the series will be held in conjunction with the 1998 SIAM Annual Meeting (July 13–17, 1998) and the 9th SIAM Conference on Discrete Mathematics (July 12–15, 1998) at the University of Toronto, Toronto, Ontario, Canada. This workshop will be held on Monday, July 13th and Tuesday, July 14th, with an introductory group discussion and dinner on Sunday, July 12th.

WORKSHOP: The workshop will consist of a poster session by graduate students, four minisymposia, a group discussion on careers, a panel on government funding and a dinner with a keynote speaker. The graduate student poster session includes all areas of research in applied mathematics. Each minisymposium will have a definite focus. The first minisymposium will include four talks about career skills including oral presentations, writing, and grant writing skills. The three remaining minisymposia will focus on the research areas of mathematical biology, discrete math/optimization, and PDE's and applications.

Applications for funding must be received by AWM by March 1, 1998. Selected graduate student participants will present their research in a poster session. Selected postdocs (those within five years of their Ph.D.) will speak in one of the three AWM research minisymposia. Applicants who meet eligibility requirements and are selected to participate in the AWM Workshop will received reimbursement for full transportation costs, registration cost of the SIAM Annual Meeting and two days subsistence for meals and lodging, pending final budgetary approval. Departments are urged to help graduate students and postdocs obtain some 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 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 *postdocs* should include a cover letter, a title and abstract (75 words or less) of the talk (to be given if accepted), a summary of their work (1–2 pages), and curriculum vitae; they may also include a letter of recommendation. Letters of support are encouraged. The word "postdoc" refers to any mathematician who has received her Ph.D. within the last five years, whether or not she currently holds a postdoctoral or other academic position. All funded participants are invited and strongly encouraged to attend the full AWM two-day program. All non-U.S. citizen applicants must have a current U.S. address.

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, MD 20742-2461; phone: 301-405-7892; email: awm@math.umd.edu. Applications via email or fax will not be accepted.

APPLICATION DEADLINE: **March 1, 1998**

CONFERENCES/GRANTS

Integral Methods in Science and Engineering

The Fifth International Conference on Integral Methods in Science and Engineering (IMSE98) will be held August 10–13, 1998, Michigan Technological University, Houghton, Michigan. Participation is encouraged from all whose work makes use of analytic and numerical methods, integral equations, ordinary and partial differential equations, finite element methods, conservation laws, hybrid approaches, vortex methods, etc. Refereed proceedings will be published.

Call for papers: Abstracts not exceeding 300 words should be submitted to the organizers by email or hard copy by **February 28, 1998**. An abstract form is available on the World Wide Web: http://www.math.mtu.edu/~imse. For additional information, contact the local conference chair, B. Bertram, imse@mtu.edu, 906-487-2211; also, see the display ad on page 19.

1998 SIAM Annual Meeting

The 1998 SIAM Annual Meeting, to be held jointly with the Ninth SIAM Conference on Discrete Mathematics, will take place July 13–17, 1998 at the University of Toronto. Meeting themes include computational chemistry for pharmaceuticals, computational electromagnetics, mathematical finance, genomics, discrete mathematics, weather/climate/environmental modeling and computation, Earth's dynamo, mathematical sciences curriculum reform, nondestructive evaluation, and superconductivity.

Plenary speakers include: George E. Andrews, Pennsylvania State University, "The Deconstruction of Calculus Reform"; S. Jonathan Chapman, Oxford University; John C. Hull, University of Toronto, "The Pricing and Hedging of Derivatives"; Raj Mittra, Pennsylvania State University, "A Review of Some Recent Advances in the Finite Difference Time Domain Technique for Solving Maxwell's Equations in Complex Structures"; Paul H. Roberts, University of California, Los Angeles, "The Generation of Magnetic Fields by Moving Fluids"; and J. Jerry Uhl, University of Illinois, Urbana, "Using the Computer to Make Mathematics Courses that Work." The following plenary speakers will give their presentations to a joint session of SIAM's Discrete Mathematics Conference and Annual Meeting:

Noga Alon, Tel-Aviv University, Israel and Institute for Advanced Study, Princeton, "Graph Algorithms Via Spectral Techniques" and Richard M. Karp, University of Washington, "Discrete Mathematics as a Tool for Molecular Biology." The organizers are also pleased to announce that Olga A. Ladyzhenskaya of the Steklov Mathematics Institute, Russian Academy of Sciences will deliver the John von Neumann Lecture.

A minisymposium is a two-hour session consisting of four presentations on a well-focused topic. A number of minisymposia are being invited to complement the plenary presentations. The Association for Women in Mathematics, the Canadian Applied Mathematics Society, the Fields Institute for Mathematical Sciences, and the Society for Mathematical Biology are planning to organize minisymposia to supplement the meeting themes.

Submissions for either a lecture or poster presentation and proposals to organize a minisymposium are welcome. LaTeX macros for submitting abstracts and fill-in form for minisymposium proposals can be found on the World Wide Web at http://www.siam.org/conf.htm. Deadline for submission of minisymposium proposals: **December 15, 1997**. Deadline for submission of contributed abstracts: **January 15, 1998**.

For further information, contact: SIAM, 3600 University City Science Center, Philadelphia, PA 19104; email: meetings@siam.org; http://www.siam.org/conf.htm; phone: 215-382-9800; fax: 215-386-7999.

Joint Summer Research Conferences in the Mathematical Sciences

The 1998 Joint Summer Research Conferences in the Mathematical Sciences will be held at Mount Holyoke College in South Hadley, Massachusetts from June 21 to July 23, 1998. The topics and organizers for the five conferences were selected by the AMS, the Institute of Mathematical Statistics (IMS), and the Society for Industrial and Applied Mathematics (SIAM) Committee on Joint Summer Research Conferences in the Mathematical Sciences. The conferences represent diverse areas of mathematical activity, with emphasis on areas currently especially active and in which there is important interdisciplinary activity at present. It is anticipated that the series of conferences will be supported by grants from the National Science Foundation and other agencies. If supported,

funding will be available for a limited number of participants in each conference. In addition to those funded, others will be welcome, within the limitations of the facilities of the campus. In the spring a brochure of information will be mailed to all who are requesting to attend the conferences. Participants will be responsible for making their own housing and travel arrangements and will be required to pay a conference fee.

Those interested in attending one of the conferences should send the following information to the Summer Research Conference Coordinator, Conferences Department, American Mathematical Society, P.O. Box 6887, Providence, RI 02940; phone: 401-455-4142; email rgc@ams.org: title and dates of conference desired; full name; mailing address; phone numbers for office, home, and fax; email address; scientific background relevant to the topic of the conference; and financial assistance requested (or indicate if support is not required). The deadline for receipt of requests for information is **March 1, 1998**. After the deadline of March 1, requests to attend will be forwarded to the Organizing Committee for each conference for consideration. All applicants will receive a formal invitation, brochure of information, notification of financial assistance, and a tentative scientific program (if available) from the AMS by May 1. Funds available for these conferences are limited, and individuals who can obtain support from other sources should do so. The allocation of grant funds is administered by the AMS office, and the logistical planning for the conferences is also done by the AMS. However, it is the responsibility of the chair of the Organizing Committee of each conference, not the AMS, to determine the amount of support participants will be awarded. Women and minorities are encouraged to participate in these conferences.

For further information, including details supplied by organizers of individual conferences, see the Meetings and Conferences page on e-MATH, http://www.ams.org/committee/meetings/.

This year's conferences are: Series, Combinatorics and Computer Algebra, June 21–25, Mourad E. H. Ismail, University of South Florida, and Dennis Stanton, University of Minnesota; Quantum Cohomology, June 28 to July 2, Aaron Bertram, University of Utah, and Yongbin Ruan, University of Wisconsin; Geometric Group Theory and Computer Science, July 5–9, Robert Gilman, Stevens Institute of Technology; Mathematical Methods in Inverse Problems for Partial Differential Equations,

July 12–14, William Rundell, Texas A&M University; and Nonlinear PDE's, Dynamics and Continuum Physics, July 19–23, Jerry L. Bona, University of Texas, Katarzyna Saxton, Loyola University, and Ralph Saxton, University of New Orleans.

International Congress of Mathematicians

The Organizing Committee is pleased to announce that the next International Congress of Mathematicians (ICM) will take place in Berlin, Germany, August 18–27, 1997. It will be held under the auspices of the International Mathematical Union (IMU) and sponsored by many other institutions.

There will be about twenty one-hour plenary lectures covering recent developments in the major areas of mathematics and about 170 forty-five-minute invited lectures in nineteen sections. Every registered participant of the Congress will have the opportunity to give a short presentation, either a poster or a fifteen-minute talk. In addition to the scientific portion of the program, there will be several cultural activities attractive to the general public, including a VideoMath Festival. Special consideration will be given to the impact of the Nazi regime on mathematics in Berlin and Germany.

To receive the Second Announcement, fill out the form on the ICM '98 server (http://elib.zib.de/ICM98). Alternatively, send an empty email to icm98@zib.de with "Second Announcement" in the Subject line to receive an email form. If this is not possible for you, send full name and address to ICM'98, c/o Prof. Dr. J. Winkler, TU Berlin, MA 8-2, Strasse des 17. Juni 135, D-10623 Berlin, Germany; fax: +49/30/314-21604.

Travel/host Grants

The Office for Central Europe and Eurasia of the National Research Council offers grants to individual American scientists who plan to establish *new* research partnerships with their colleagues from Central/Eastern Europe and the Newly Independent States. This program is designed primarily to prepare these new partnerships for competition in NSF programs. For more information, contact: Office for Central Europe and Eurasia, National Research Council, 2101 Constitution Avenue NW, Washington, DC 20418; phone: 202-3343680; fax: 202-334-2614; url: http://www2.nas.edu/oia/22da.html; email: ocee@nas.edu.

AWM Events

AWM would like to invite you to our events to be held in conjunction with the Joint Mathematics Meetings at the Baltimore Convention Center, Baltimore, Maryland, January 7-10, 1998.

Preliminary Schedule as of October 10, 1997

Wednesday, January 7th

8:00 a.m.
3:20 p.m.- 4:20 p.m.

AWM-MER Joint Session
Panel Discussion: *"Mathematicians and Families"*
Panelists: **Deborah Tepper Haimo**, UCSD   **Craig L. Huneke**, Purdue Univ.   **Suzanne M. Lenhart**, Univ. of Tenn.
Rhonda J. Hughes, Bryn Mawr   **Stephen F. Kennedy**, Carleton College   **Dawn Lott-Crumpler**, NJIT
At the conclusion of the panel, AWM will recognize the **Alice T. Schafer Prize honorees.**

4:20 p.m. -4:50 p.m.   **Business Meeting**
6:00 p.m.   **Noether Dinner:** As in the past, AWM will have a get-together with the Noether Lecturer for a casual dinner. If you would like to join us, a sign-up sheet will be at the AWM Table in the exhibit area.

9:30 p.m.   **Open Reception:** with refreshments and cash bar. This has been a popular, well attended event in the past.

Thursday, January 8th

9:00 a.m.   **19th Annual Emmy Noether Lecture:**   *"Symplectic structures: a new approach to geometry"*
presented by **Dusa McDuff**, SUNY at Stony Brook

4:25 p.m.   Presentation to the winners of the **8th Annual Louise Hay Award** for Contributions to Mathematics Education and the **8th Annual Alice T. Schafer Prize** for Excellence in Mathematics by an Undergraduate Woman
These award presentations are held in conjunction with the **Joint Prize Session.** A cash bar reception will immediately follow.

Saturday, January 10th

8:20 a.m.-5:10 p.m.   **AWM Workshop** for Graduate Students and Postdoctoral Mathematicians
Selected participants will present and discuss their research and meet with other mathematician. **All mathematicians (male and female) are invited to attend the entire program.** The AWM Workshop is supported by ONR and NSF.
Co-organizers: Carolyn S. Gordon, Dartmouth Coll.; Gail Ratcliff, Univ. of Missouri, Catherine Roberts, Northern Arizona Univ.

Time		
8:20 a.m. - 8:30 a.m.	Opening Remarks	
8:30 a.m. - 8:50 a.m.	**Kimberly Pearson**, Valparaiso University	*"Lower Algebraic K-Theory of Bianchi Groups"*
9:00 a.m. - 9:20 a.m	**Caryn Werner**, University of Michigan	*"Counting moduli for some surfaces of general type"*
9:30 a.m. - 9:50 a.m.	**Jeanne Nielsen Clelland**, Inst. for Advanced Study	*"Bäcklund transformations of hyperbolic Monge-Ampère systems"*
10:00 a.m. - 10:20 a.m.	**Claire Baribaud**, Florida State University	*"Closed geodesics on a pair of pants"*
10:30 a.m. - 12:00 noon	**Graduate Student Poster Session**	
	Nancy E. Cunningham. Rice University	*"A variational approach to the local uniqueness of minimal surfaces in R^3"*
	Stephanie P. Edwards, Univ. of Wisconsin-Madison	*"The Non-Real Zeros of f "and the Wiman Conjecture"*
	Cheryl Grood, University of Wisconsin-Madison	*"Even More Brauer Algebras"*
	Chawne M. Kimber, University of Florida	*"The Structure of Prime Ideal Spectra in Rings of Continuous Functions"*
	Lorelei Koss, University of North Carolina	*"Ergodic Theory of Analytic Maps of Complex Projective Space"*
	Céline M. Lossa, University of Rochester	*"The singular homology of strong bouquets of Moore spaces"*
	Cynthia McCabe, University of Iowa	*"Upper Bounds on Edge Numbers of Knots and Links"*
	Lisa A. Orlandi-Korner, Cornell University	*"Group Actions on R-trees"*
	Lisbeth E. Schaubroeck, University of North Carolina	*"Subordination and Shears of Plane Harmonic Functions"*
	Olga Simek, University of Arizona	*"Heat Trace Asymptotics for Domains with Singular Boundaries"*
	Elizabeth Lee Wilmer, Harvard University	*"Exact Rates of Convergence for Some Non-Reversible Markov Chains"*
	Carolyn Yackel, University of Michigan	*"Asymptotic Bounds for Annihilator Lengths in Quotient Rings"*
12:00 noon - 1:30 p.m.	**AWM Workshop Lunch** *(for ticket information, contact AWM)*	
1:30 p.m. - 1:50 p.m.	**May M. Nilsen**, University of Nebraska-Lincoln	*"Group duals: the non-abelian case and the role of Hopf C^*-algebras"*
2:00 p.m. - 2:20 p.m.	**Natalie M. Priebe**, Rensselaer Polytechnic Institute	*"Derived Voronoï Tilings and How They Can Be Used to Analyse Hierarchy in Tilings"*
2:30 p.m. - 2:50 p.m.	**Sylvia Silberger**, Lafayette College	*"Entropies of One-Dimensional Tiling Subshifts"*
3:00 p.m. - 3:20 p.m.	**Deborah Heicklen**, Univ. of California, Berkeley	*"Independence in ergodic theory"*
3:30 p.m. - 5:00 p.m.	**Panel: "Launching a Career in Mathematics"** (Panelists: TBA)	
5:00 p.m. - 5:10 p.m.	Closing Remarks	

AWM will have an information table in the exhibit area throughout the meeting. **For more details** on the above events, please stop by the **AWM Information Table** for an *AWM Events Program* or refer to your *Joint Mathematics Meetings Program.*

ONR/SIAM/AWM WORKSHOP
STANFORD UNIVERSITY, JULY 1997

Looking happy at the end of the workshop: Row 4 (top): Dianne O'Leary (Maryland), Donna Calhoun (Washington), Pam Cook (Delaware), Dawn Wheeler (AWM), Joyce McLaughlin (Rensselaer). Row 3: Jennifer Mueller (Rensselaer), Elsa Newman (Marymount). Row 2: Barbara Niethammer (Courant), Anna Georgieva (Duke), Suzanne Lenhart (Workshop Organizer, Tennessee), Sylvia Wiegand (AWM President, Nebraska), Ruth Pfeiffer (Maryland), Maeve McCarthy (Rice). Row 1: Ivonne Diaz-Rivera (Arizona State), Carolyn Hill Coleman (Case Western Reserve).

Format of the Workshop

The Association for Women in Mathematics (AWM), in conjunction with the Society for Industrial and Applied Mathematics (SIAM) and with funding from the Mathematics, Computer and Information Sciences Division of the Office of Naval Research (ONR), held an outstanding workshop July 13–15 1997 at the SIAM Annual Meeting. The workshop was the latest in a series that AWM offers twice yearly to promote and encourage women advanced graduate students and recent postdoctoral mathematicians.

This workshop featured 21 talented new women mathematicians from all over the United States, with the state of Maryland best represented by five of them. The participants in the July '97 event felt that hearing others' research, meeting other graduate students and postdocs, and meeting senior mathematicians (particularly women) were extremely valuable activities for them. The opportunity to attend a meeting was also important.

The sessions focused on the reporting of research results and the mentoring of graduate students and postdoctoral mathematicians. Most of the sessions at the Workshop were open to the public, and some events attracted a large number of other mathematicians.

The program included an informal discussion period for mentors and participants, a banquet with keynote speech, an outdoor lunch, graduate student poster sessions, an AWM minisymposium on "Presenting Your Work and Yourself to the World: A Focus on Written Communications," a panel discussion on research and funding opportunities, and three research minisymposia featuring postdoctoral women: I. Mathematical modeling, II. Optimization, and III. PDE's and Applications.

In addition to our publication of this *Newsletter* insert, SIAM plans to publish the "Presenting Your Work" and "Grantwriting" portions of the program as a guide for young professionals.

Graduate student participants and posters

Donna Calhoun (University of Washington) displays her poster (below left) to Barbara Lee Keyfitz (University of Houston). Calhoun's poster, "A Cartesian Grid Method for 2d Stefan Problem," involved "tracking the moving interface that separates two phases (liquid and solid) of a material and solves the heat equation in both regions." Donna organized a student-run Numerical Analysis Journal Club at UW.

Maria Sosonkina Driver (Virginia Tech University) presented the poster "Sparse Approximate Inverses in Preconditioning of Distributed Linear Systems." Driver's research area is numerical linear algebra and scientific computing, specifically in

Donna Calhoun and Barbara Keyfitz

Maria Sosonkina Driver

methods to solve difficult nonlinear systems of equations. She is originally from Ukraine.

Carolyn Hill Coleman (Case Western Reserve University) stands with Svetlana Rudnaya (University of Minnesota) at Rudnaya's poster, "Application of Genetic Algorithms in Diffractive Optics Design." Rudnaya is interested in industrial applications of mathematical modeling and optimization techniques; currently she is collaborating with scientists at 3M on an optimal design problem arising in optics.

Coleman's poster on software she has developed to perform analyses of diagnostic information was titled "Expanding Generalized Receiver Operator Characteristic (ROC) Analysis." This has applications in medicine to complications stemming from very low birth weight. A former high school teacher, Coleman is married and has a 15-year-old son.

Anna V. Georgieva (Duke University), shown with her poster "Nonlinear Particle Chains with Alternating Masses," studies wave propagation in this context and proves rigorously the existence of periodic traveling waves. She describes her research as "a well-balanced mixture between abstract mathematical theory and concrete calculation."

Ruth Pfeiffer (University of Maryland) worked on "A Threshold Estimation Problem for Stochastic Processes with Hysteresis." Pfeiffer, who has held NASA and Fulbright fellowships, is originally from Austria. She has been the co-chair of the University of Maryland Women in Mathematics seminar. Her main research interest is in the modeling of
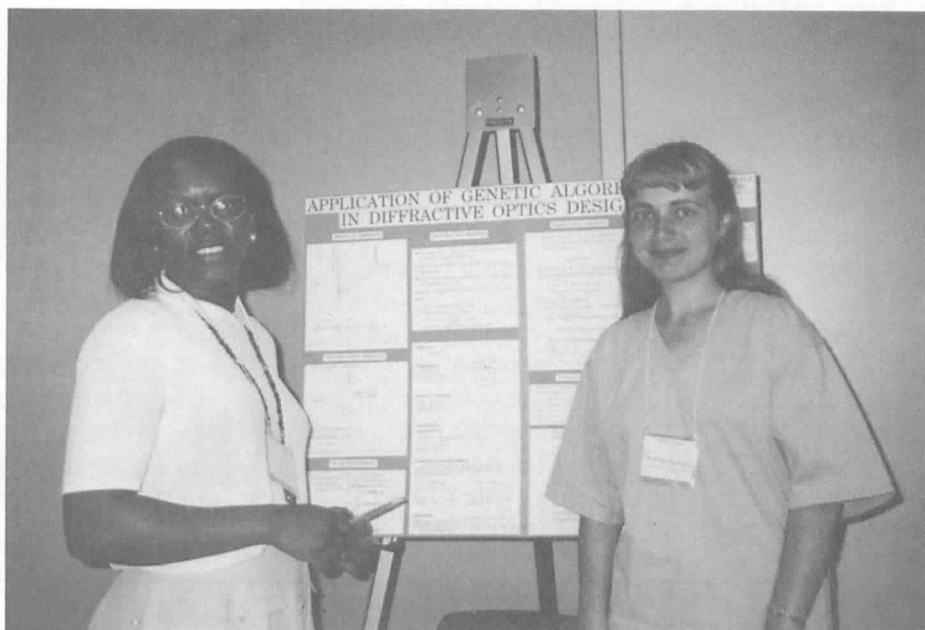
Carolyn Coleman and Svetlana Rudnaya

Ruth Pfeiffer

Anna V. Georgieva
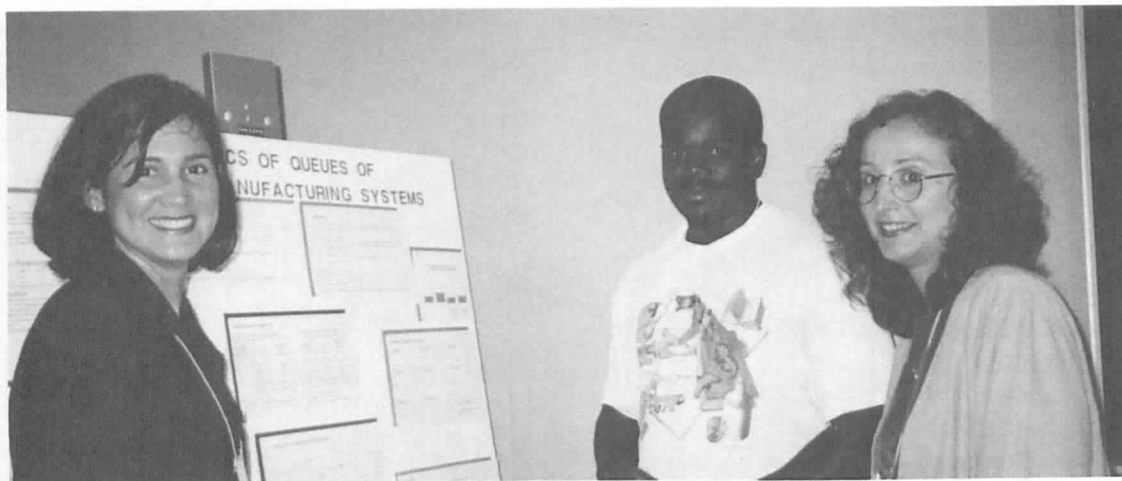
Ivonne Diaz-Rivera, Rudy Horne, and Debra Polignone Warne

scientific data; for example she has been studying rainfall in the tropics and estimating rain rates (a joint project between the U.S. and Japan).

Ivonne Diaz-Rivera (Arizona State University) explains her poster, "The Dynamics of Queues of Re-entrant Manufacturing Systems," to Rudy Horne (University of Colorado) and Debra Polignone Warne (University of Tennessee). Diaz-Rivera is enthusiastic about this research using recent developments in dynamical systems and chaos theory; it's "an exciting example of the use of mathematics in solving industrial problems." She has been Chairperson of a Women in Math group at ASU and was Vice-President of the Hispanic Club while at AT&T.

Kristen S. Moore

Misha E. Kilmer

Kristen S. Moore (University of Connecticut) presented the poster "On a Singular Semilinear Elliptic Boundary Value Problem with Boundary Blowup." Moore is interested in applying qualitative and quantitative methods to nonlinear partial differential equations which arise from mechanical problems. She has previously been an actuary.

Misha E. Kilmer (University of Maryland) stands at her poster, "Cauchy-like Preconditioners and 2-D Ill-posed Problems." The integral equations that model processes in seismography, tomography, and signal and image processing are often ill-posed in that small changes in data can cause arbitrarily large changes in the solution. Kilmer has worked on finding a regularized solution. She has also studied underwater acoustics.

Postdoctoral mathematicians

I. Minisymposium on Mathematical Modeling

Organized by Suzanne M. Lenhart (University of Tennessee), this minisymposium included a variety of mathematical models and applications. Both continuous and discrete models were considered.

Gabriella A. Pintér (Ph.D. Texas Tech University, now at North Carolina State University) spoke on "Global Attractors for Damped Abstract Nonlinear Hyperbolic Systems." These systems arise in the study of smart material structures (elastomers, which are used in the development of active and passive vibration devices). Pintér brought her three-month-old daughter, Anna, to the workshop.

Debra Polignone Warne (Ph.D. University of Virginia, now at University of Tennessee) discussed "Non-symmetric Deformations in Incompressible Nonlinear Elasticity," research in continuum mechanical modeling and related areas. She studies gross material behavior and governing principles of such behavior in solids and fluids.

The topic of Kathleen A. Rogers (Ph.D. University of Maryland, now at University of Minnesota) was "Stability Properties of Equilibria within a Continuum Mechanics Model of DNA Minicircles." The motivation for these results arose from a problem in the study of DNA structure.

Hong Zhou (Ph.D. University of California, Berkeley, now at University of North Carolina) spoke about "The Effect of Dynamics Surface Tension on the Oscillation of Slender Elliptical Newtonian Jets." Her research is in computational fluid mechanics and mathematical modeling of fibers and liquid crystal polymers.

II. Minisymposium on Optimization

This minisymposium, organized by Margaret H. Wright (Bell Laboratories), presented a variety of optimization problems with varied applications. There were also illustrations of the impact of scientific computing on these problems.

Dana Bedivan (Ph.D. from and presently at the University of Texas at Arlington) spoke on "Least Squares Methods for Optimal Shape Problems." Her work has been motivated by problems that arise in semiconductor design. She has also been an editor for a Romanian mathematical journal.

Tamara G. Kolda (Ph.D. University of Maryland, now at Oak Ridge National Laboratory) discussed "Information Retrieval via Limited-Memory Matrix Methods," where she says, "the goal in information retrieval is to match documents against a user's query." Kolda has chaired Maryland's Women in Mathematics group.

Lianfen Qian (Ph.D. Michigan State University, presently at Florida Atlantic University), is a statistician working on nonlinear time series analysis. Her work, "On Maximum Likelihood Estimators for a Threshold Autoregression," involves various phenomena such as limit cycles, harmonic distortion and chaos. In many cases, for example the temperature of the sea surface and pollen concentration at various depths of a lake, the associated functions are discontinuous, and it is helpful to study a maximum likelihood estimator.

Zhiyun Yang (Ph.D. University of Washington, now at Pacificorp) spoke on "The Solution of the
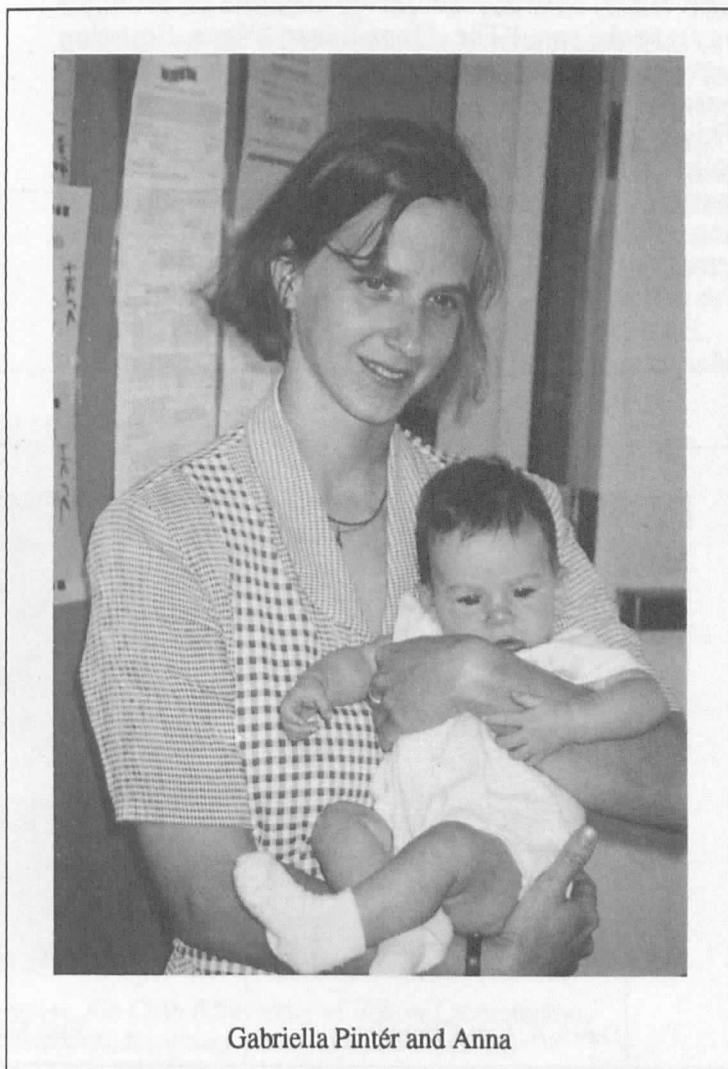
Gabriella Pintér and Anna

Elliptic Boundary Value Problems on Irregular Regions." She has focused on a wavelet approach to solving elliptic problems arising from computational chemistry.

III. Minisymposium on PDE's and Applications

Joyce R. McLaughlin (Rensselaer Polytechnic Institute) organized this minisymposium, in which several different PDE models were discussed, along with a variety of physical and biological applications and some methods for analyzing them.

Xin Chen (Ph.D. at Rensselaer Polytechnic Institute, now at University of Illinois) works in systems and control; she applies her mathematical skills to a broad spectrum of engineering problems. Her presentation was on "Worst Case L-infinity to L-infinity Gain Minimization via State Feedback."

Dawn A. Lott-Crumpler (Ph.D. Northwestern University, now at New Jersey Institute of Technology) spoke on "The Quasilinear Wave Equation Governing Compressional Wave Motions of Nonlinearly Elastic Bodies: A Numerical Approach." This problem arose from physical phenomena in solid and fluid mechanics. She also studies the formation of shear bands in metals, a phenomenon that occurs because straining the metal increases its temperature and the increased temperature weakens the material.

Elsa Newman (Ph.D. Emory University, now at Marymount University) spoke on "Axisymmetric Flow in Transonic Aerodynamics." Newman's work, related to transonic flight, deals with equations that arise in the design of fuel-efficient axisymmetric bodies and the study of axisymmetric jet flows. Transonic flow is flow with speed close to the speed of sound. Much commercial flight (e.g., 747's) is in this range, so there is much interest in this topic. Originally from North Carolina, Newman is married and has a two-year-old daughter.

Barbara Niethammer (Ph.D. University of Bonn, now at Courant Institute, NYU) is interested in equations which describe phase separation in binary alloys and elasticity. She spoke on "Derivation of the Lifshitz-Slyozov Theory for Coarsening by Homogenization Methods." An example of coarsening is solid formation in undercooled liquid: the system evolves to minimize surface area. Due to surface tension, large particles grow at the expense of the smaller ones which shrink and disappear.

Senior mathematicians and advice: General, writing and funding

The advice given here comes from the informal discussions, the keynote speech, a panel discussion on funding and a minisymposium on developing writing skills.

On Sunday afternoon, at the beginning of the workshop, the participants and four senior mathematicians gathered for a introductory get-together. The senior mathematicians, Rosemary Chang,
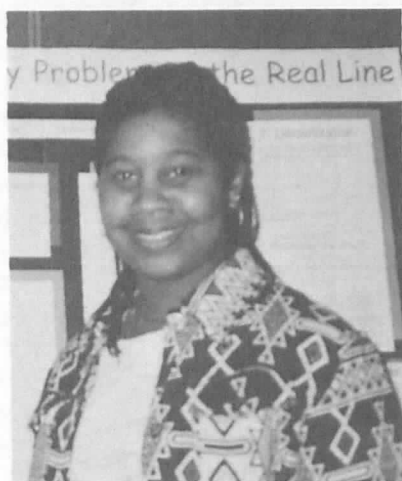
| Dawn A. Lott-Crumpler | Elsa Newman | Pam Cook |
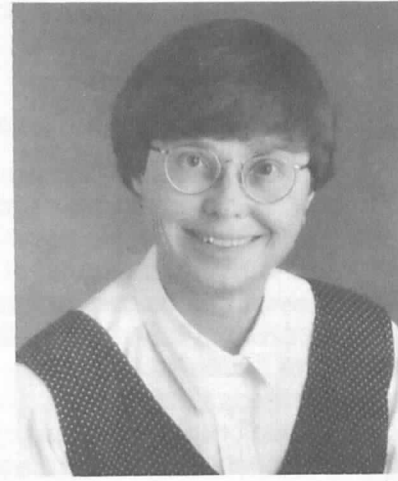
Margaret Cheney, Marsha Berger and Suzanne Lenhart, each told about her own job or situation when a student. Then the senior mathematicians gave advice about success in careers, such as:

- Make a strong contribution in one research area to get tenure. Do not spread yourself too thin at first.

- Pick your fights carefully. Fights take time and effort, and you do not want to be known as someone who fights on every issue. Decide what issues are worth fighting about.

- Introduce yourself to colleagues at conferences. Collect and hand out business cards. Send follow-up email messages and try to maintain contacts.

- Try not to teach in the summer. Go to conferences and get some research done in the summer.

- Get two mentors (if possible), one inside your department and one outside your department. Try to find someone to answer your "stupid" questions (which are probably not that "stupid").

The participants also raised some issues and questions. The issue of finding a job seemed crucial. Elsa Newman suggested that you should be well-informed about calculus reform and have some opinions on reform before going on an interview.

You should also think about other curriculum issues such as standards and cooperative learning. Possibilities of post-doctoral fellowships were discussed. Balancing family and work was an issue of interest. With a supportive spouse, the group was optimistic about achieving this balance and being successful in a career.

On Sunday evening, Pam Cook, Chair of her department at the University of Delaware, spoke at the AWM banquet on "Thoughts from a chair(person)." When she first went to Delaware 15 years ago she was the only woman with a tenured or tenure track position; now there are four such women in a faculty of 36. Still Cook is one of very few women chairs of Ph.D.-granting math departments, roughly four out of 156. This clearly indicates that we still have a long way to go. She was emphatic that senior faculty ought to mentor junior female faculty; she has benefitted greatly as Chair from mentoring by a female Dean. Her position on the SIAM board is a networking aid.

She also told the participants of five rules for being a successful woman mathematician given by Audrey Terras in the May–June AWM *Newsletter*: (1) Don't *ever* give up, (2) Keep learning and teaching, (3) Network, go to meetings, give talks, collaborate, (4) Do useful math, and (5) Have a (good) life! Cook added that it's important to be flexible and to expand your area of expertise.

Discussion group: At front: Suzanne Lenhart (Tennessee), Xin Chen (University of Illinois Laboratories), Marsha Berger (CIMS), Margaret Cheney (Rensselaer), Rosemary Chang (Silicon Graphics)

Originally from Ontario, Canada, Cook received her Ph.D. from Cornell University and is married with two children. She and her husband had a difficult time resolving the two-body problem, which she didn't explain because "it would take a whole page!" She's interested in transonic aerodynamics.

Dianne O'Leary, a mentor at the workshop, received her Ph.D. from Stanford University and is now a professor of Computer Science at the University of Maryland. Married with three children, she and her husband solved the two-body problem by "looking in metropolitan areas." Her fields of interest are numerical analysis, computational linear algebra, optimization, and ill-posed problems.

The ability to communicate is a key to success in academia and industry. This was the focus of the Monday morning minisymposium "Presenting Your Work and Yourself to the World: A Focus on Written Communications," organized by Linda R. Petzold (University of California, Santa Barbara). The author must clearly display the *relevance* of technical work, even of excellent technical work. How to write journal articles and grant proposals was also discussed.

Petzold is currently Professor in the Departments of Computer Science and Mechanical and Environmental Engineering and Director of the Computational Science and Engineering Program at Santa Barbara. She spoke on "Overcoming Proposal Phobia." Although writing a proposal may seem overwhelming, it is an opportunity to clarify, plan and prepare for your future research, to communicate your excitement and to explain the importance of your work. Applying for a grant involves selling your project and yourself, being a salesperson. Some questions to ask yourself: What do you want to do? Why? What good is it? (Talk to others about it and convince them, and then you will convince yourself.) Are there problems that could be solved better as a result of this work? To get over the initial writer's block, use a successful proposal for a model. Some don'ts: Don't use a small font to fit your proposal into the page limits. Don't be overly pedantic. Don't forget to mention other's work. Don't be too negative about the potential difficulties.

Petzold, who received her Ph.D. in Computer Science in 1978 from the University of Illinois, was awarded the Wilkinson Prize for Numerical Software in 1991. She has served as SIAM Vice President for Publications since 1993 and as Editor in Chief of the *SIAM Journal on Scientific Computing*, 1989–1993. Her research interests include numerical ordinary differential equations, differential-algebraic equations, partial differential equations, numerical optimization, parameter estimation and optimal control for PDE systems, mathematical software, parallel computing and scientific computing.

Lloyd (Nick) Trefethen, now associated with Oxford, spoke on "How I Write"; he has always loved to write and finds it to be one of the pleasures

| Linda Petzold | Nick Trefethen | Joyce McLaughlin |

of academic life. Trefethen's talk was amusing, sprinkled with little poems by Piet Hein, a Danish poet well-known for his "grooks," for example: "If no thought/ your mind does visit/ make your speech/ not too explicit."

Trefethen especially emphasized his habit of endlessly polishing his papers. He described the iterative procedure of taking a draft, using a red pen, and producing an improved draft — "you keep going until f(x)=x." But he admitted that he "can't rest until it's utterly simple and utterly clear," that he wants the "best theorem and the best proof." This never quite happens, so his projects take a long time. (His students once made a point of presenting him with a large box of red pens!)

Trefethen has worked on various problems in applied mathematics and numerical analysis. In 1988 he married Anne Daman, from England, also a Ph.D. in numerical analysis. In 1985 he won the first Fox Prize in Numerical Analysis, and in 1986 he received a Presidential Young Investigator Award. More recently his work concerns eigenvalue problems and their applications in fluid mechanics and other fields.

Margaret Wright's title, "Writing: A String that Makes the Necklace," came from a quote of Gustave Flaubert: "Ideas are the pearls/ But writing/ Is the string that makes/ The necklace." Wright, who is at Bell Labs, emphasized the importance of

writing skills for almost every successful career, although she cautioned that there is no single magic formula for writing well. Some of the general principles she mentioned were similar to advice she has given for delivering research talks: (1) Practice, practice, practice! (2) The content matters but isn't enough. (3) Know you're in charge; know what you want to say and make sure you say it. She also mentioned revising endlessly and suggested consulting references for grammar and style.

After receiving her Ph.D. from Stanford University, Wright remained there for twelve years in the Department of Operations Research. From 1988 to the present, she has been at Bell Labs. Wright, who served as President of SIAM in 1995–96, is interested in optimization, linear algebra, numerical analysis, and scientific computing.

Deborah Lockhart spoke in the Writing Minisymposium on "Preparation of Research Grant Proposals," particularly for the National Science Foundation, where she has been a program director for nine years. Lockhart earned a Ph.D. in mathematics from Rensselaer Polytechnic Institute in the area of continuum mechanics. In her talk, she included suggestions for the effective presentation of ideas as well as proposal development, preparation, format, and style. Her main points were: (1) Have a great idea, (2) Know your audience, (3) Follow instructions, and (4) Ask for help. She

Deborah Lockhart and Margaret Wright

emphasized particularly that you should know the ground rules, the scope and mission of the funding source, and how they evaluate and that you should talk to the program officer. Key questions to ask yourself: What do you intend to do? Why is this research important? What has already been done? (Give the background and list all relevant research.) How are you going to do the work? Al Thaler, also at NSF and in the audience, also stressed calling the program officer; you can get candid information.

Later on Monday in the panel discussion on funding and research, Lockhart described several relevant NSF programs, including the POWRE program (Professional Opportunities for Women in Research and Education), Postdoctoral Research Fellowships, the Faculty Early Career Development program, the Research in Undergraduate Institution (RUI) program, and Research Opportunity Awards submission, as well as the regular program.

As examples of research opportunities, Fadil Santosa, the associate director of the Minnesota Center for Industrial Mathematics, described three workshops at the IMA of possible interest to participants: Dynamical Systems, Mathematics and Biology, and Reactive Flows. He also mentioned opportunities for rewarding collaborative research with industry. Santosa, who also oversees the graduate degree program in Industrial Mathematics

offered at Minnesota's School of Mathematics, received his Ph.D. from the University of Illinois in 1980; he works in several areas of applied mathematics including inverse problems, imaging, optimization, wave propagation and nondestructive evaluations.

John Tague of the Office of Naval Research spoke on winning grantsmanship. Tague emphasized that along with writing an effective proposal, it is important to develop a good working relationship with the program officer and stay in touch with the program officer after the award has been received. In Tague's opinion, "star" performers are those who deliver what they promise and take the initiative in finding out what problems the program officer wants solved. They are active participants in the program, communicate with the program officer regularly, and send paper pre-prints and slides describing the objectives and results of the project.

Workshop Organizers

Suzanne Lenhart, the Organizer of this workshop, received her Ph.D. in mathematics from the University of Kentucky. Lenhart has also kindly agreed to organize the SIAM Workshop to be held in Toronto in 1998. In addition to her faculty position at the University of Tennessee, Lenhart has

The funding panel: Deborah Lockhart, Suzanne Lenhart (moderator), Fadil Santosa, and John Tague

been a part-time employee of Oak Ridge National Laboratory since 1987. She was the Sonia Kovalevski Guest Professor at the University of Kaiserslautern, Germany, in the spring of 1994 and gave an AWM invited lecture at the MAA meeting in Atlanta in August of 1997.

Lenhart's research area is partial differential equations and optimal control. Her current emphasis is on environmental and population models. Her application areas have ranged from robotics to managing beaver populations to optimal nutrient delivery strategies for bioreactor models for hazardous waste remediation. Her work on optimal control for chemotherapy strategies for AIDS models is the first work on optimal control in AIDS biological-mathematical research. She has done research in the areas of optimal control of competitive population models and viscosity solutions for systems. Lenhart, who directs a Research Experiences for Undergraduates (REU) summer program and has organized AWM Sonia Kovalevsky High School Days and Post-doc and Graduate Student Workshops, is a former president of the local Association for Women in Science chapter.

A driving force behind previous AWM/SIAM workshops, Joyce McLaughlin, who has been Ford Foundation Professor of Mathematics at Rensselaer Polytechnic Institute since 1992, not only organized the workshops, but she also prepared the successful proposals which provided the funding. McLaughlin, who earned her Ph.D. from the University of California, Riverside, describes her main research interests as inverse problems and optimization; she studies the use of spectral data in design and identification. This work requires defining special data sets which yield well-posed problems and for which accurate algorithms can be obtained. The problems are nonlinear and have a wide range of application in nondestructive testing, manufacturing, and geophysics.

McLaughlin has recently given seven major invited addresses, including the Plenary Lecture at the SIAM 1996 annual meeting. McLaughlin's professional activities include her position as Chair of the SIAM Board of Trustees (1996–present) and her positions on several editorial boards, including serving as Associate Editor for the *Journal of Mathematical Analysis and Applications*.

Future Workshops

The next workshop will be held in conjunction with the Joint Meetings in Baltimore. Everyone is welcome to attend. Information about applying for next summer's SIAM workshop appears on the page 15 in the regular pages of this issue.

Deborah Lockhart (NSF), Margaret Wright (Bell Labs), Martha Siegel (Towson State), John Guckenheimer (SIAM President; Cornell), and Al Thaler (NSF)
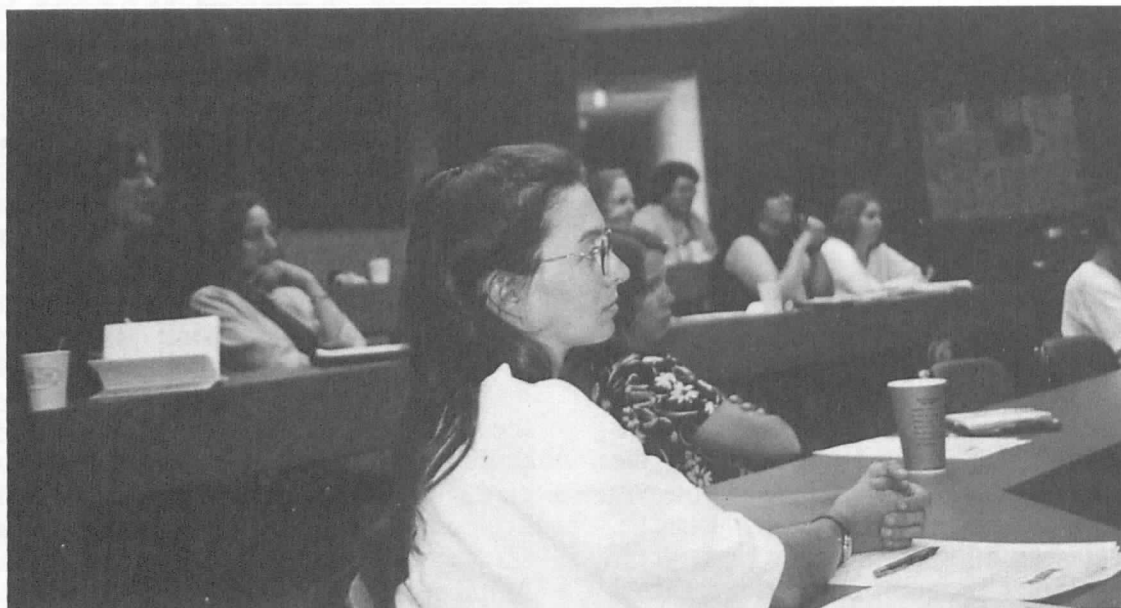
An intent audience: Participants at the Workshop

Postdoc Debra Polignone Warne, Workshop Organizer Suzanne Lenhart, AWM Meetings Director Dawn Wheeler, and AWM President Sylvia Wiegand leaving a Palo Alto restaurant.

ADVERTISEMENTS

ADVERTISEMENTS

BROOKLYN COLLEGE, CUNY - DEPARTMENT OF MATHEMATICS - The Department of Mathematics of Brooklyn College of the City University of New York announces a tenure-track assistant professorship in mathematics. The successful applicant will possess the Ph.D. degree and will have the ability to teach and work on curriculum in one of the areas that the Department is working to develop: applied statistics, operations research, mathematics applicable to the decision sciences, or a related area. The candidate should also have experience in using computers in teaching. Commitments to research, teaching, and curriculum development are essential. Duties will include teaching a range of undergraduate mathematics courses as well as joining an ongoing process of curriculum development. Salary is commensurate with qualifications and experience within the range $29,931 to $45,672. Candidates should send a resume and arrange to have three letters of reference sent to: **Prof. George S. Shapiro, Chairperson, Department of Mathematics, Brooklyn College, 2900 Bedford Avenue, Brooklyn, NY 11210-2889.** Applications received by February 10, 1998 will receive full consideration. AA/EOE/M/V/H/F.

BROWN UNIVERSITY - MATHEMATICS DEPARTMENT - J.D. Tamarkin Assistant Professorship - Three-year non-tenure non-renewable appointment, beginning July 1, 1998. Teaching load: two courses per semester (6 hours per week). Ph.D. degree must be received before start of appointment, but we will not consider applicants who will have held an academic or postdoctoral position for more than two years after their Ph.D. by June 1998. 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. A curriculum vitae, a completed application form, and three letters of recommendation should be received by December 1, 1997. Requests for application forms and all other inquiries should be addressed to: **Tamarkin Search Committee, Department of Mathematics, Brown University, Providence, RI 02912.** Brown University is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.

CALIFORNIA STATE UNIVERSITY, LONG BEACH - DEPARTMENT OF MATHEMATICS - Tenure track position, statistics or applied mathematics at assistant professor level. Effective: August 24, 1998. Minimum Qualifications: Ph.D. in Statistics or in Applied Mathematics with extensive statistics background. Some Actuarial Science knowledge. Salary: $37,140 to $46,812 per year commensurate with qualifications and experience. For further information and application, write: **Mathematics Department Search Committee, California State University, Long Beach, 1250 Bellflower Boulevard, Long Beach, CA 90840-1001.**

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE - DEPARTMENT OF MATHEMATICS - The Department of Mathematics invites applications for a tenure track appointment at the assistant professor level effective Fall 1998, although, in exceptional cases, a more advanced appointment may be considered. Since about half of our majors graduate with a Secondary Teaching option and the department has recently instituted a graduate option in Applied Mathematics, candidates with specialties in Teacher Education or Applied Mathematics will be given particular consideration. Excellence in teaching, research, and a willingness to participate in departmental and University affairs, in addition to a Ph.D. in the mathematical sciences are required. Please send a vita, the *AMS Standard Cover Sheet*, and three letters of recommendation, one of which addresses the candidates teaching abilities, to: **Hiring Committee, Department of Mathematics, CSUN, Northridge, CA 91330-8313,** by January 15, 1998. CSU Northridge is an Equal Opportunity/Affirmative Action Employer.

CARNEGIE MELLON UNIVERSITY - DEPARTMENT OF MATHEMATICAL SCIENCES - Assistant Professorships - The Carnegie Mellon Department of Mathematical Sciences seeks to make two tenure-track appointments at the Assistant Professor level. These positions will commence in the Fall of 1998. One appointment will be made in **Numerical Analysis/Computational Math.** The second appointment will be made in **Discrete Mathematics** and candidates who can support the Department's educational program in Algorithms, Combinatorics, and Optimization are strongly preferred. Applicants should send a vita, list of publications, and a statement describing current and planned research. Candidates should also arrange to have at least three letters of recommendation sent to: **Appointments Committee, Department of Mathematical Sciences, Carnegie Mellon University, Pittsburgh, PA 15213.** Carnegie Mellon University is an Affirmative Action/Equal Opportunity Employer.

CARNEGIE MELLON UNIVERSITY - DEPARTMENT OF MATHEMATICAL SCIENCES - Zeev Nehari Visiting Assistant Professorship - The Zeev Nehari Visiting Assistant Professorship was established to honor the memory of Professor Nehari, who had a long and distinguished career in the Department of Mathematics. This position is available for a period of three years, beginning in September 1998, and carries a reduced academic year teaching load of six hours a week during one semester and three hours a week during the other. Applicants are expected to show exceptional research promise, as well as clear evidence of achievement and should have research interests which intersect those of current faculty of the Department. Applicants should send a vita, list of publications, and a statement describing current and planned research. Candidates should also arrange to have at least three letters of recommendation sent to: **Zeev Nehari Appointments Committee, Department of Mathematical Sciences, Carnegie Mellon University, Pittsburgh, PA 15213.** Carnegie Mellon University is an Affirmative Action/Equal Opportunity Employer.

CARNEGIE MELLON UNIVERSITY - CENTER FOR NONLINEAR ANALYSIS - DEPARTMENT OF MATHEMATICAL SCIENCES - The Center for Nonlinear Analysis expects to make several Post-Doctoral appointments for 1998-99 in the area of applied analysis. This is a one-year (twelve-month) joint appointment by the Center and Department of Mathematical Sciences. Recipients will teach at most two courses per year. Applicants should send a vita, list of publications, a statement describing current and planned research, and arrange to have at least three letters of recommendations sent to the committee. The deadline for applications is January 19, 1998. All communications should be addressed to: **Post-Doctoral Appointments Committee, Department of Mathematical Sciences, Carnegie Mellon University, Pittsburgh, PA 15213.** Carnegie Mellon University is an Affirmative Action/Equal Opportunity Employer.

CARNEGIE MELLON UNIVERSITY - DEPARTMENT OF MATHEMATICAL SCIENCES - Visiting Positions in Logic - The Carnegie Mellon Department of Mathematical Sciences seeks visitors in logic for one or more semesters (possibly one or two years) of the 1998-99 and 1999-2000 academic years. We seek persons who share interests with the logic faculty and can teach at the undergraduate and graduate level. Information about our department and Carnegie Mellon's interdisciplinary Ph.D. program in Pure and Applied Logic can be obtained from: http://www.math.cmu.edu/ or http://www.cs.cmu.edu/afs/cs/project/pal/www/pal/html. Applicants should send a vita, list of publications, and a statement describing current and planned research to: **Appointments Committee, Department of Mathematical Sciences, Carnegie Mellon University, Pittsburgh, PA 15213.** Recent Ph.D.'s should also arrange to have at least three letters of recommendation sent to the same address. Deadline for applications is January 19, 1998. Carnegie Mellon University is an Affirmative Action/Equal Opportunity Employer.

-more-

ADVERTISEMENTS

COLLEGE OF WILLIAM AND MARY - MATHEMATICS DEPARTMENT - Two tenure-track assistant professor positions, beginning August 1998. Demonstrated excellence in scholarship and teaching, and a Ph.D. in a mathematical science are required. Strong preference given to a statistician for one position. Visiting positions may also be available. Candidates likely to augment or interact with departmental strengths (see http://www.math.wm.edu) are preferred. Submit application letter, *AMS Standard Cover Sheet*, CV, research description, and three or more recommendation letters (at least one concerning teaching) to: **Search Committee, Mathematics Department, P.O. Box 8795, William and Mary, Williamsburg, VA 23187-8795.** Review begins December 18, 1997 and continues until appointments are made. Department members available for conversation at the Joint Mathematics Meetings in Baltimore. Email address: search@math.wm.edu. The College is an AA/EO employer. Members of under-represented groups (including people of color, people with disabilities, Vietnam veterans, and women) are encouraged to apply.

COLUMBIA UNIVERSITY - BARNARD COLLEGE - DEPARTMENT OF MATHEMATICS - Assistant or Associate Professor, starting Fall 1998. Candidates must have a Ph.D. in Mathematics and at least 3 years of postdoctoral experience, including an excellent teaching record which will support our undergraduate programs in Mathematics and Computer Science. A strong research record and an ongoing research program in areas close to the interests of the Barnard and Columbia departments is expected. Applicants should send a vita and a summary of their research and teaching interests to the Chair. Applicants should also arrange for at least 3 letters of recommendation which will evaluate the candidate's research and teaching potential, to be sent to: **Mathematics Search Committee/Barnard 2990 Broadway, MC:4406, Columbia University, New York, New York 10027.** Barnard College is an equal opportunity employer.

COLUMBIA UNIVERSITY - DEPARTMENT OF MATHEMATICS - On the outside possibility that a **Ritt Assistant Professorship** may become available, the deadline for applications is January 9, 1998. Position for new Ph.D. regardless of age. One-year appointment, normally renewable for three more years. Teaching load, two courses per semester. Send vitae, (p)reprints and three letters of recommendation. At least one letter should address teaching experience. Preference will be given to candidates with research interests similar to those in the department. Please submit *"AMS Application Cover Sheet"* with application. First consideration will be given to applicants whose folders are complete by January 9, 1998. Send applications to: **HIRING COMMITTEE, Department of Mathematics, Mail Code 4406, 2990 Broadway, Columbia University, New York, NY 10027.** An equal opportunity-affirmative action employer.

CONNECTICUT COLLEGE - MATHEMATICS DEPARTMENT - Connecticut College invites applications for a tenure-track position in the Mathematics Department starting August, 1998; the rank is open. Requirements include a Ph.D. in Mathematics, teaching experience, and a strong commitment to quality teaching and research. We are seeking an individual whose area of specialization will strengthen our course offerings in one or more of the following areas: analysis, complex analysis, topology, and/or geometry. Responsibilities include contributing to the research environment in the department, and helping to foster a stimulating atmosphere for both undergraduate mathematics majors and other students who take mathematics courses at the College. The ability to participate in collaborative research with undergraduates is highly desirable. Connecticut College is a small, private, highly selective college with a strong commitment to the liberal arts tradition and encourages interdisciplinary teaching and research. The teaching load is 5 courses per year. More information about this position and the College may be obtained at our web page http://camel.conncoll.edu/ccacad/Math/job.html. Applicants should send a letter of application, curriculum vitae, statements on teaching and research, and 3-5 letters of reference to: **Professor Kathleen A. McKeon, Connecticut College Box 5561, New London, CT 06320. E-mail: math-dept@conncoll.edu.** Review of applications will begin December 15, 1997 and continue until the position is filled. Connecticut College is an Affirmative Action/Equal Opportunity employer and is actively seeking to further diversify its faculty and staff.

COLLEGE OF CHARLESTON - MATHEMATICS DEPARTMENT - At least one tenure-track position at the Assistant Professor level available Fall 1998. Qualifications: Ph.D. in one of the mathematical sciences, commitment to undergraduate and graduate teaching, and potential for continuing research. Preference for one position will be given to applicants in some area of computational mathematics. Teaching: 9 hrs/wk normal load for those engaged in research. Salary is competitive. Send resume and have 3 letters of recommendation sent to: **Deanna Caveny, Chair, Mathematics Department, College of Charleston, Charleston, SC 29424-0001.** The process of evaluating applications will begin on January 12, 1998, but applications will be considered until the positions are filled. AA/EOE.

CORNELL UNIVERSITY - DEPARTMENT OF MATHEMATICS - Applications are invited for two (or possibly more) tenure-track/tenured positions to begin July 1, 1998. We anticipate filling one senior-level position in the area of statistics and one junior-level position. Those with research interests in the areas of algebra, algebraic geometry, analysis and applied mathematics are encouraged to apply. Teaching load will be three one-semester courses per year. Applications are also invited for a possible H. C. Wang Assistant Professorship for a non-renewable, three-year term. Send CV, current research abstract and three recommendation letters by December 15, 1997, to: **The Recruiting Committee, Department of Mathematics, White Hall, Cornell University, Ithaca, NY 14853-7901.** One application is sufficient for all of the above. Direct inquiries to recruit@math.cornell.edu or consult http://math.cornell.edu/. Candidates must possess a Ph.D. and have proven excellence in teaching and research. AA/EOE.

UNIVERSITY OF MINNESOTA – DULUTH
Master of Science: Applied and Computational Mathematics

Modeling and Simulation   Graph Theory and Combinatorics

Probability and Statistics   Control Theory

Dynamical Systems   Scientific Computation

Teaching and research assistantships available ($9,000 for 9 months) with full tuition waiver.

e–mail: math@d.umn.edu
web site: http://www.d.umn.edu/math

Contact: Director of Graduate Studies
Department of Mathematics and Statistics
University of Minnesota – Duluth
Duluth, MN 55812

The University of Minnesota is an equal opportunity educator and employer.

-more-

ADVERTISEMENTS

DARTMOUTH COLLEGE - DEPARTMENT OF MATHEMATICS - John Wesley Young Research Instructorship - 2-yrs., new or recent Ph.D.'s whose research overlaps dept. member's. Teach 4 ten-week courses spread over 2 or 3 quarters. $39,000 for nine months; $8,667 summer research stipend. Send application letter, resume, research/thesis description, graduate transcript, and 3 (prefer 4) references (1 discussing teaching) to: **Betty Harrington, Department of Mathematics, Dartmouth College, 6188 Bradley Hall, Hanover, NH 03755-3551.** Files complete January 15, 1998 considered first. Dartmouth is committed to affirmative action and strongly encouraged minorities and women to apply.

DARTMOUTH COLLEGE - DEPARTMENT OF MATHEMATICS - Tenure-track Assistant Professor opening anticipated in the field of combinatorics, initial appointment in 1998-1999 academic year. In exceptional cases, appointment to a higher level is possible. Teaching four 10-week courses over 2 or 3 terms. Send letter of application, vita, research interests, four letters of recommendation, at least one on teaching, to: **Betty Harrington, Department of Mathematics, Dartmouth College, 6188 Bradley Hall, Hanover, NH 03755-3551.** Applications complete by January 1, 1998 considered first. Women and minorities are encouraged to apply.

DARTMOUTH COLLEGE - DEPARTMENT OF MATHEMATICS - Opening anticipated for a Professor of Mathematics, appointment effective in the 1998-99 academic year. Field open. Candidate must demonstrate evidence of an exceptional research program that has achieved peer-recognition and research leadership in the mathematical community, and a record of exceptional teaching and continued interaction with students at all levels of undergraduate and graduate study. Leadership in guiding Ph.D. theses is also essential. Send letter of application, curriculum vitae, a brief statement of research results and interests, and the names of four references, at least one of which can specifically address teaching, to: **Betty Harrington, Recruiting Secretary, Department of Mathematics, Dartmouth College, 6188 Bradley Hall, Hanover, NH 03755-3551.** Applications complete by January 1, 1998, including reference letters (allow enough lead-time for us to make the solicitations from the names you provide), will receive first consideration. Women and members of minority groups are encouraged to apply. Specific questions on the selection process can be directed to C. Dwight Lahr, Recruiting Chair.

DENISON UNIVERSITY - DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE - Denison University has a three semester position in the Department of Mathematics and Computer Science beginning January 1998. Ph.D. required in Mathematics. A commitment to quality instruction of undergraduates is essential. Denison University is a liberal arts college of 1,800 students located in a village of 4,000, seven miles from Newark (population 50,000) and 25 miles east of Columbus, Ohio. The Department of Mathematics and Computer Science offers B.A. and B.S. degrees in mathematics and computer science. Send resume and transcripts of graduate work to: **Dr. Joan Krone, Chair, Department of Mathematics and Computer Science, Denison University, Granville, Ohio 43023.** Also ask three persons who know you well to send reference letters in support of your application. Applications will be processed until the position is filled.

DICKINSON COLLEGE - DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE - The Department of Mathematics and Computer Science invites applications for a tenure-track position in Mathematics at the Assistant Professor level starting August 1998. Applicants should have a Ph.D. in Mathematics and a strong commitment to liberal arts education. Excellence in undergraduate teaching and strong research potential are expected. Dickinson is a private, highly selective, liberal arts college with 1,800 students located in south-central Pennsylvania. The Department has eight full-time members. We offer major and minor programs in both mathematics and computer science. Please send a cover letter, CV, and separate statements on teaching philosophy and research interests to: **Prof. Barry Tesman, Department of Mathematics and Computer Science, Dickinson College, Carlisle, PA 17013.** Also, arrange for three letters of recommendation and copies of graduate transcripts to be sent to the same address. Review of completed applications will begin on December 15, 1997. Please indicate whether you will be attending the Baltimore Joint Meetings, where we will be conducting preliminary interviews. Inquiries may be made to tesman@dickinson.edu. Further information is available from http://www.dickinson.edu/departments/mathcs. Dickinson is an Affirmative Action/Equal Opportunity Employer. Women and minorities are especially encouraged to apply.

DUKE UNIVERSITY - DEPARTMENT OF MATHEMATICS - W.W. Elliott Assistant Research Professorship of Mathematics - 1998-1999 - Applications are invited for two positions as Assistant Research Professor of Mathematics. Candidates should have completed a doctorate as of September 1, 1997 and show definite promise in research and teaching. The teaching load will be six hours per week during one semester and three hours per week during the other, so that the appointee will have additional time for research. Duke University is an affirmative action/equal opportunity employer. The appointments are for one year and will be renewable for two additional years. The salary will be $38,000 covering work in the regular two-semester year. Applicants please send (a) a vita; (b) a description of current and past research (1-3 pages); and (c) plan for future research. The *AMS Standard Cover Sheet* should be completed electronically from the address below. Each applicant is requested to include in their materials the name(s) of one or more members of the faculty of the Department of Mathematics at Duke working in their general area of research. Applications should be filed by December 20; 1997, early application is advisable. The applicant should have at least three letters of recommendation, including one which evaluates teaching, sent directly to Duke by mid-January. All correspondence, including references, EXCEPT *AMS Cover Sheets*, should be addressed to: **Appointments Committee, Department of Mathematics, Box 90320, Duke University, Durham, NC 27708-0320.** *AMS Cover Sheets* should be completed at http://www.phds.org/jobs. Email inquiries: appts@math.duke.edu

DUKE UNIVERSITY - DEPARTMENT OF MATHEMATICS - Professorship in Mathematics - Duke University 1998-99. The Duke University Mathematics Department is seeking to fill a new position at the full professor level beginning 1 July 1998. We invite applications or inquiries from senior mathematicians with a distinguished record of leadership in research and teaching. Minority and women candidates are encouraged to apply. Duke University is an affirmative action/equal opportunity employer. We are especially interested in mathematicians who will interact well with our established groups in differential geometry, geometric analysis, mathematical physics, and nonlinear analysis. For further information about our department, its faculty, and their specific areas of interest, please consult our departmental web pages at http://www.math.duke.edu. Applicants should send a curriculum vitae, list of publications, a few selected reprints or preprints, and the names and addresses of three references to the Senior Search Committee at the address below. The department will assume responsibility for soliciting letters of evaluation. Applications received by 15 January 1998 will receive our full consideration. Send to: **Senior Search Committee, Department of Mathematics, Box 90320, Duke University, Durham, NC 27708-0320.** Email: search@math.duke.edu

DUKE UNIVERSITY - DEPARTMENT OF MATHEMATICS - Applications and nominations are invited for one tenure track position as assistant professor in applied mathematics. Salary is open; the position is to start September 1, 1998. Duke University is an affirmative action/equal opportunity employer. Applicants please send (a) a vita; (b) a description of current and past research (1-3 pages); and (c) plan for future research. The AMS Standard Cover Sheet should be completed electronically from the address below. Applications should be filed by December 15, 1997; early application is advisable. The applicant should have at least three letters of recommendation, including one which evaluates teaching, sent directly to Duke by mid-January. All correspondence, including references, EXCEPT *AMS Cover Sheets*, should be addressed to: **Faculty Search Committee, Department of Mathematics, Box 90320, Duke University, Durham, NC 27708-0320.** *AMS Cover Sheets* should be completed at http://www.phds.org/jobs. Email inquiries: appts@math.duke.edu

-more-

ADVERTISEMENTS

DUKE UNIVERSITY - DEPARTMENT OF MATHEMATICS - Lecturer in Mathematics - 1998-1999 - Applications are invited for one position as Lecturing Fellow in the Department of Mathematics at Duke University. Candidates should have completed a doctorate as of September 1, 1997, have excellent teaching credentials and have a strong interest in curriculum development. The teaching load will be six hours per week per semester. In addition, Lecturing Fellows are expected to participate in the Department's ongoing revision of laboratory calculus and to continue their own research program in Mathematics. Duke University is an affirmative action/equal opportunity employer. The appointment is for two years and is not renewable. The 9-month salary will be $35,000 covering work in the regular two-semester year. Applicants please send (a) a vita; (b) a teaching statement and a description of any experience in curriculum development; (c) a description of current and past research (1-3 pages); and (d) a plan for future research. The *AMS Standard Cover Sheet* should be completed electronically from the address below. Each applicant is requested to include in their materials the name(s) of one or more members of the faculty of the Department of Mathematics at Duke working in their general area of research. Applications should include at least three letters of recommendation, including two which evaluates teaching, sent directly to Duke. All correspondence, including references, EXCEPT *AMS Cover Sheets*, should be addressed to: **Lecturer Committee, Department of Mathematics, Box 90320, Duke University, Durham, NC 27708-0320.** *AMS Cover Sheets* should be completed at http://www.phds.org/jobs. Email inquiries: appts@math.duke.edu

GEORGE MASON UNIVERSITY - DEPARTMENT OF MATHEMATICAL SCIENCES - The department expects to fill two tenure-track positions, preferably at the assistant professor level in the Fall of 1998. Successful candidates must demonstrate the potential to make significant contributions to both the B.S. and M.S. programs in either Actuarial Mathematics or Computational and Applied Mathematics. Candidates are expected to teach at both the undergraduate and graduate levels, maintain an active research program, and pursue external funding opportunities. Computational and Applied Mathematics Faculty also teach courses and supervise Ph.D. students in the interdisciplinary Institute for Computational Sciences and Informatics. Arrange for a vita, statement of teaching and research interests and at least three letters of reference to be sent to: **Ittai Kan, Chair of Search Committee, Department of Mathematical Sciences, George Mason University, MS 3F2, 4400 University Drive, Fairfax VA 22030-4444,** (e-mail: ikan@gmu.edu). To ensure consideration apply before December 31, 1997; late applications will be accepted until the position is filled. George Mason University is an AA/EEO employer. Women and minorities are encouraged to apply.

GEORGETOWN UNIVERSITY - DEPARTMENT OF MATHEMATICS - The Department of Mathematics has a tenure-track position at the Assistant Professor level beginning August 25, 1998. The Ph.D. degree in Mathematics is required with strong research credentials in partial differential equations, harmonic analysis or applied mathematics. A commitment to excellence in undergraduate teaching is essential. To apply, send curriculum vitae and reprints or preprints of no more than three research papers. Also arrange to have three letters of recommendation sent to: **Professor John Lagnese, Chairman of the Search Committee, Department of Mathematics, Box 571233, Georgetown University, Washington, DC 20057.** Complete applications must be received by January 15, 1998. Georgetown University is an Equal Employment Opportunity and Affirmative Action institution in employment and admissions.

GEORGIA SOUTHERN UNIVERSITY - DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE - Three tenure track positions starting August 1, 1998. Salary dependent upon qualifications. Indicated degrees are required by the position starting date. All deadlines are postmark deadlines. Commitment to excellence in teaching and scholarly activity, as well as excellent command of written and spoken English, are required. College teaching experience is desirable. Departmental representatives will be available at the national AMS/MAA meeting at Baltimore in January 1998 to discuss these positions with interested parties. Send letter of application indicating position desired, curriculum vitae, unofficial transcripts of all college work, evidence of commitment to excellence in teaching and scholarship, a brief description of planned scholarly activities, and a letter of reference from each of three references by the indicated deadline to: **appropriate search chair (Applied Math, Computer Science, or Math Ed.), [search number], Department of Mathematics and Computer Science, Post Office Box 8093, Georgia Southern University, Statesboro, GA 30460-8093.** The names of applicants and nominees, resumes and other general non-evaluative information are subject to public inspection under the Georgia Open Records Act. Georgia Southern is an Equal Opportunity/Affirmative Action Institution. Persons who need accommodation(s) in the application process under the Americans with Disabilities Act should notify the chair. **APPLIED MATHEMATICS.** Assistant Professor. Ph.D. in an applied math area required. Preference will be given to applicants in the areas of Discrete Math, Numerical Analysis, Scientific Computing, Modeling. and Differential Equations but consideration will be given to applicants in all areas of applied math. At least one year of experience with the use of computational packages (such as Mathematica Maple, or Matlab) is required. Interest in teaching freshman/sophomore-level mathematics courses required. Three years college teaching experience preferred. Send applications and supporting materials to: **Applied Math Search Chair, Search #: 34925.** Deadline: January 16, 1998. **COMPUTER SCIENCE.** Assistant or Associate Professor. Requirements include a Ph.D. in Computer Science or closely related field with training/experience in at least one of the following areas preferred: Multimedia/Visualization Systems, Artificial Intelligence, and Software Engineering. Proficiency in C++ or Java required. Ability to teach a broad range of computer science courses required. Three years of college teaching experience preferred. Duties include teaching undergraduate and graduate courses in computer science and supervision of research projects for M.S. degree candidates concentrating in computer science. Send applications and supporting materials to: **Computer Science Search Chair, Search #: 34926.** Deadline: January 16, 1998. **MATHEMATICS EDUCATION.** Assistant Professor. Doctorate in a mathematical science required; Ph.D. or Ed.D. in mathematics education preferred. Must be broadly trained in mathematics with at least 24 semester hours of graduate level courses in pure or applied mathematics. Must exhibit evidence of a strong commitment to excellence in teaching and continued scholarly activity, and have familiarity with current directions in mathematics education, including the use of technology in the classroom. Primary interest in mathematics education required; experience in working with K-12 mathematics teachers preferred. At least three years teaching experience preferred. Candidates must be able to work effectively with professional and community groups. Duties include teaching undergraduate mathematics courses and undergraduate/graduate mathematics courses for mathematics education majors. Send applications and supporting materials to: **Math Ed. Search Chair, Search #: 34927.** Deadline: January 16, 1998. Georgia Southern University, a unit of the University System of Georgia, was founded in 1906 and became a regional university in 1990. The 601-acre campus is located in Statesboro, a community of approximately 30,000 residents, 50 miles northwest of historic Savannah and 200 miles southeast of Atlanta. Anticipated fall quarter 1997 headcount of over 14,000 reflects a 115% enrollment growth since the fall of 1984, resulting in the addition of over 200 faculty positions. The university offers 23 baccalaureate degrees in 81 major fields of study, ten master's degrees in 40 fields, the Education Specialist degree with 16 majors, and Ed.D. programs in Educational Administration and Curriculum Studies.

GEORGIA STATE UNIVERSITY - DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE - Two anticipated tenure track positions beginning August 1998. One position is in Mathematics education for an assistant or associate professor. Another position is in applied statistics for an assistant professor. Ph.D. and excellent record in publications are required with preference for extramural funding. Send letter of application, vita without birthdate but with citizenship status, and 3 letters of reference & transcripts of all undergraduate and graduate work and postmarked by January 16, 1998 to: **Chair, Department of Mathematics and Computer Science, Georgia State University, University Plaza, Atlanta, GA 30303-3083.** Georgia State University, a Unit of the University System of Georgia, is an equal opportunity educational institution, and an EEO/AA employer.

-more-

ADVERTISEMENTS

GRAND VALLEY STATE UNIVERSITY - DEPARTMENT OF MATHEMATICS - Assistant/Associate Professor of Mathematics Education - Grand Valley State University, an institution committed to teaching excellence, solicits applications for a tenure track assistant professorship to begin August 1998. Responsibilities include teaching mathematics courses at all levels, maintaining an active program of professional development, advising students, and engaging in departmental service. The successful candidate will have a Ph.D. in mathematics; demonstrated excellence in undergraduate teaching and strong teaching recommendations; commitment to continued scholarly and professional growth; demonstrated scholarly interest in an area of mathematics amenable to undergraduate research; and demonstrated interest in teaching mathematics courses including calculus and in at least one of the following areas: precalculus mathematics, mathematics education, or introductory statistics. A complete application must include a cover letter and vita, a copy of graduate transcripts, and at least three letters of recommendation. At least two letters must attest to the applicant's teaching ability and potential. The application must also include a personal statement that addresses the applicant's qualifications for the position (as listed above) and teaching philosophy and methodology. Send these materials to: **Mathematics Search Committee, Department of Mathematics and Statistics, Grand Valley State University, Allendale, MI 49401.** Completed applications must be received by December 1, 1997. Grand Valley State University is an Equal Opportunity, Affirmative Action, Americans with Disabilities Act Institution.

HAVERFORD COLLEGE - DEPARTMENT OF MATHEMATICS - Haverford College seeks to fill a tenure track position in mathematics at the assistant professor level, starting in fall 1998. Candidates should have a strong commitment to both teaching and research, and should demonstrate significant experience and/or potential for growth in both of these areas. Applications are invited from candidates with research interests in any field of mathematics. Candidates should be prepared to teach a broad spectrum of courses at the undergraduate level, as well as courses in their research areas. Applicants should submit a *standard AMS cover sheet* as well as a letter describing their interest in this position, curriculum vitae, statement of research and teaching activities, and at least three letters of recommendation. Send to: **Secretary, Mathematics Search Committee, Haverford College, Haverford, PA 19041.** To ensure full consideration, application materials should be received by December 1, 1997. Haverford College is an Equal Opportunity/ Affirmative Action Employer. Women and minority candidates are strongly encouraged to apply.

HARVEY MUDD COLLEGE - DEPARTMENT OF MATHEMATICS - Associate or Assistant Professor of Mathematics - Harvey Mudd College invites applications for one tenure-track position in mathematics at the Associate Professor or Assistant Professor level. Excellence in teaching is absolutely essential, as is evidence of a strong and ongoing research program. Candidates for Associate Professor must have a demonstrated record of superior teaching and an established research program. Preference will be given to applicants in applied mathematics, especially in the areas of applied analysis, PDEs, ODEs, continuous dynamical systems or integral equations. Applicants should also have wide mathematical interests and be able to teach across the undergraduate mathematics curriculum. Candidates must be willing to supervise undergraduate research, and work with others in the development of departmental programs. Harvey Mudd College is a highly selective undergraduate institution of science and engineering. One year of high-school calculus is required for admission to HMC. More than one-third of the student body are National Merit Scholarship finalists. The college enrolls about 630 students and is associated with four other undergraduate colleges and the Claremont Graduate University, forming together an academic community of about 5,000 students. There are over 40 mathematicians in Claremont. Applicants should send a curriculum vita, a description of their teaching philosophy and accomplishments, and a description of their current research and research goals. Applicants should also arrange to have three letters of reference sent directly to the address that appears below. Letters should, as much as possible, assess the quality of the applicant's scholarship, record and potential as a mathematician, and abilities as a teacher. Preference will be given to applications received before January 15, 1998. Harvey Mudd College is an equal opportunity employer and is strongly committed to the recruitment of candidates historically underrepresented on college faculties. Address for applications: **Search Committee, Department of Mathematics, Harvey Mudd College, Claremont, CA 91711-5990.**

INDIANA UNIVERSITY, BLOOMINGTON - DEPARTMENT OF MATHEMATICS - Two three-year visiting positions will be available in the 1998-1999 academic year. These terminal postdoctoral positions are named after our late distinguished colleague Max Zorn, and are restricted to new Ph.D.'s. Outstanding candidates in all areas of pure and applied mathematics and statistics are encouraged to apply. Excellent research potential as well as a commitment to teaching are required. Indiana University is an affirmative action/EEO employer. Applications received by January 16, 1998 will be given full consideration. Please send a letter of application to: **Search Committee, Department of Mathematics, Rawles Hall, Bloomington, IN 47405-5701.**

INDIANA UNIVERSITY, PURDUE UNIVERSITY AT FORT WAYNE - DEPARTMENT OF MATHEMATICAL SCIENCES - The Department of Mathematical Sciences at Indiana University - Purdue University Fort Wayne (IPFW) invites applications for one of several tenure-track appointments effective Fall 1998, at the rank of assistant professor. Applicants should hold or expect to have completed by Fall 1998, a doctorate in mathematics, mathematics education, or statistics. The department needs one statistician, one or two faculty in mathematics education, and at least one other faculty member. Preference may be given to individuals whose research interests are compatible with the needs of the department. The department takes pride in its teaching. Faculty members are each expected to teach approximately nine credits per semester while maintaining a significant program of scholarly work leading to publication. They are also expected to carry a share of the service load required of the department. Indiana University - Purdue University Fort Wayne is a commuter university with about 11,000 students in an attractive setting on the St. Joseph River. The Department of Mathematical Sciences offers degrees at the bachelor's and master's levels. Courses are offered during the day and evening. Additional information about the department and the University is available at http://www/ipfw.edu/ To apply, send (or arrange to have sent) a letter of application, your resume, an unofficial copy of your transcripts and three letters of reference to: **Search Committee, Department of Mathematical Sciences, IPFW, Fort Wayne, IN 46805-1499.** Applications received by 31 January 1998 will receive full consideration; later applications will be accepted and considered if the positions have not been filled. IPFW is an AA/EEO employer.

INSTITUTE FOR ADVANCED STUDY AND PRINCETON UNIVERSITY - The IAS School of Mathematics will grant a limited number of memberships, some with financial support for research in mathematics at the Institute during the 1998-99 academic year. Candidates must have given evidence of ability in research comparable at least with that expected for the Ph.D. degree. During the 1998-99 academic year, George Lusztig will be the Distinguished Visiting Professor, and there will be a special program on geometric methods in representation theory. The SCHOOL OF MATHEMATICS AT THE INSTITUTE FOR ADVANCED STUDY and the DEPARTMENT OF MATHEMATICS AT PRINCETON UNIVERSITY have recently established the **Veblen Research Instructorship**. Commencing with the 1998-99 academic year, 3 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 **IAS MEMBERSHIPS** may be requested from **Applications, School of Mathematics, Institute for Advanced Study, Olden Lane, Princeton, NJ 08540, 609-734-8112,** e-mail address: applications@math.ias.edu. Forms may also be downloaded but not submitted via a web connection to: http://www.math.ias.edu. Application materials for the INSTRUCTORSHIP position may be **requested either from the Institute at one of the above addresses or from Mr. Scott Kenney, Department of Mathematics, Princeton University, Princeton, NJ 08544,** 609-258-4200, e-mail address: skenney@princeton.edu. Both application DEADLINES are December 1, 1997.

-more-

ADVERTISEMENTS

-more-

ADVERTISEMENTS

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, 1998. The candidates should have a Ph.D. in the field of statistics and/or probability and a strong research and teaching potential. Candidates with research interest in Statistics are strongly encouraged to apply. Please have a curriculum vitae and three reference 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 15, 1997 and continue until the position is filled. MSU is an Affirmative Action/Equal Opportunity Institution. Minorities and women are strongly encouraged to apply.

MONTCLAIR STATE UNIVERSITY - DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE - Two Positions - Applications are invited for a tenure-track position in MATHEMATICS EDUCATION (V#-2) starting Fall 1998. Rank and salary at the Assistant or Associate level will be commensurate with qualifications and experience. Candidates are required to have a doctorate in Mathematics or Mathematics Education with a demonstrated commitment to research in Mathematics Education. A strong background in mathematics through the Master's level and some experience with grades K-12 are also required. Preference will be given to candidates whose primary research involves the training or education of mathematics teachers. Candidates should be capable of directing doctoral students and contributing leadership to the Department's active graduate program in Mathematics Education. Responsibilities will include involvement with undergraduate and master's courses in mathematics and undergraduate, master's and a developing Ed.D. program in mathematics education. Applications are also invited for a tenure-track position in DISCRETE APPLIED MATHEMATICS (V#-1) starting Fall 1998 at the rank of Assistant Professor. Candidates are required to have a Ph.D. in Mathematics with expertise in operations research required together with one or more of the following areas preferred; Graph Theory, Game Theory, or Combinatorial Mathematics. Faculty are expected to be professionally active, have an active research program, and be committed to quality teaching and the pursuit of grants. Teaching load is 12 credits per semester but may be reduced to 9 credits per semester if actively engaged in research. The Department of Mathematics and Computer Science at Montclair State University includes undergraduate programs in Mathematics, Mathematics Education, Computer Science and Physics; Master's programs in Mathematics, Mathematics Education, Computer Science and Statistics. Currently, there are thirty-nine full-time faculty in the department. Faculty are cooperating with the University's College of Education and Human Services in the development of an Ed.D. with a Specialization in Mathematics Education designed for the classroom teacher. Applicants should send a vita, a statement of professional goals, research interests and teaching philosophy, and three letters of recommendation to either: **MATHEMATICS EDUCATION SEARCH COMMITTEE (V#-2)** or **APPLIED MATHEMATICS SEARCH COMMITTEE (V#-1) , c/o Dr. George Santiago, Assistant Dean, CSAM, Montclair State University, Upper Montclair, NJ 07043.** Screening begins immediately and continues until the position is filled. Montclair State University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply. Subject to available funding.

NORTHERN ARIZONA STATE UNIVERSITY - DEPARTMENT OF MATHEMATICS - Assistant Professor - Mathematics Education - Tenure-track assistant professorship beginning Fall 1998. Minimum requirements are a doctorate in mathematics education or mathematics, substantial evidence of high quality teaching and potential to contribute to an active mathematics education program at both the undergraduate and master's levels. Preference will be given to candidates with a demonstrated interest and experience teaching mathematics in grades 7-12. Scholarly activity will be evaluated on publication record, grant-funded interaction with inservice teachers, and involvement in building collaborative relationships between universities and middle and secondary schools. The department of 25 includes 3 specialists in mathematics education. The Northern Arizona University community is composed of faculty, staff, and students from a wide range of cultural backgrounds. Applicants should have the experience and commitment necessary to work with such a diverse population. Send a letter of application graduate school transcripts, curriculum vita, statement of teaching philosophy, and three letters of reference to: **Mathematics Education Screening Committee, Northern Arizona University, Box 5717, Flagstaff, AZ 86011.** Review of applications begins December 1, 1997 and will continue until the position is filled. NAU is an Equal Opportunity Employer/Affirmative Action institution. Minorities, persons with disabilities, veterans, and women are encouraged to apply.

NORTHERN ARIZONA STATE UNIVERSITY - DEPARTMENT OF MATHEMATICS - Assistant Professor - Mathematics/Operations Research - Tenure-track assistant professorship beginning Fall 1998. Minimum requirements are a doctorate in mathematics or operations research, potential for a productive research program and substantial evidence of high-quality teaching. Candidates should have a strong mathematical background with an emphasis in operations research and the ability to teach a wide variety of courses including linear and nonlinear programming and stochastic processes. Candidates should be able to interact with the department's statistics and actuarial science faculty. Collaboration and consulting with faculty in the School of Forestry is also expected. The Northern Arizona University community is composed of faculty, staff, and students from a wide range of cultural backgrounds. Applicants should have the experience and commitment necessary to work with such a diverse population. Send a letter of application, graduate school transcripts, curriculum vita, and three letters of reference to: **Operations Research Screening Committee, Northern Arizona University, Box 5717, Flagstaff, AZ 86011.** Review of applications begins December. 1, 1997 and will continue until the position is filled. NAU is an Equal Opportunity Employer/Affirmative Action institution. Minorities, persons with disabilities, veterans, and women are encouraged to apply.

NORTHWESTERN UNIVERSITY - MATHEMATICS DEPARTMENT - Applications are invited for anticipated tenure-track or tenured positions starting September 1998. Priority will be given to exceptionally promising research mathematicians. Fields of interest within the department include Algebra, Algebraic Geometry, Analysis, Dynamical Systems, Probability, Partial Differential Equations, and Topology. Candidates should arrange to have their application materials sent to: **Chairperson, Personnel Committee, Department of Mathematics, Northwestern University, 2033 Sheridan Road, Evanston, IL 60208-2730.** Applications should include: (1) the *American Mathematical Society's Application Cover Sheet for Academic Employment in Mathematics,* (2) a curriculum vita, 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 e-mail to hiring@math.nwu.edu. In order to receive full consideration, applications should be received by November 15, 1997. Northwestern is an affirmative action, equal opportunity employer committed to fostering a diverse faculty; women and minority candidates are especially encouraged to apply.

OBERLIN COLLEGE - DEPARTMENT OF MATHEMATICS - QP Position - Full-time, tenure-track position beginning the 1998-99 academic year. Responsibilities include teaching undergraduate courses in mathematics (5/year), supervising honors students, and sustained scholarly production. Ph.D. degree (in hand or expected by August 31, 1998) required. Candidates must demonstrate potential excellence in teaching. All specialties considered except statistics and related fields. Send letter of application, curriculum vitae, academic transcripts (graduate and undergraduate), and 3 letters of reference to: **Michael Henle, Department of Mathematics, Oberlin College, Oberlin, OH 44074** by December 15, 1997. Oberlin College admitted women since its founding in 1833 and has been historically a leader in the education of blacks. AA/EOE.

ADVERTISING DEADLINE for the January/February 1998 issue is: DECEMBER 1, 1997.

-more-

ADVERTISEMENTS

-more-

ADVERTISEMENTS

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, 1998. The candidates should have a Ph.D. in the field of statistics and/or probability and a strong research and teaching potential. Candidates with research interest in Statistics are strongly encouraged to apply. Please have a curriculum vitae and three reference 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 15, 1997 and continue until the position is filled. MSU is an Affirmative Action/Equal Opportunity Institution. Minorities and women are strongly encouraged to apply.

MONTCLAIR STATE UNIVERSITY - DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE - Two Positions - Applications are invited for a tenure-track position in MATHEMATICS EDUCATION (V#-2) starting Fall 1998. Rank and salary at the Assistant or Associate level will be commensurate with qualifications and experience. Candidates are required to have a doctorate in Mathematics or Mathematics Education with a demonstrated commitment to research in Mathematics Education. A strong background in mathematics through the Master's level and some experience with grades K-12 are also required. Preference will be given to candidates whose primary research involves the training or education of mathematics teachers. Candidates should be capable of directing doctoral students and contributing leadership to the Department's active graduate program in Mathematics Education. Responsibilities will include involvement with undergraduate and master's courses in mathematics and undergraduate, master's and a developing Ed.D. program in mathematics education. Applications are also invited for a tenure-track position in DISCRETE APPLIED MATHEMATICS (V#-1) starting Fall 1998 at the rank of Assistant Professor. Candidates are required to have a Ph.D. in Mathematics with expertise in operations research required together with one or more of the following areas preferred; Graph Theory, Game Theory, or Combinatorial Mathematics. Faculty are expected to be professionally active, have an active research program, and be committed to quality teaching and the pursuit of grants. Teaching load is 12 credits per semester but may be reduced to 9 credits per semester if actively engaged in research. The Department of Mathematics and Computer Science at Montclair State University includes undergraduate programs in Mathemat___ Mathematics, Mathematics Education, Computer Science and Statistics. Currently, ___ with the University's College of Education and Human Services in the developme___ classroom teacher. Applicants should send a vita, a statement of professional goals, ___ either: **MATHEMATICS EDUCATION SEARCH COMMITTEE (V#-2) or APPLIED MATHE___ CSAM, Montclair State University, Upper Montclair, NJ 07043.** Screening begin___ is an Equal Opportunity/Affirmative Action Employer. Women and minorities are en___

NORTHERN ARIZONA STATE UNIVERSITY - DEPARTMENT OF MAT___ assistant professorship beginning Fall 1998. Minimum requirements are a doctorat___ teaching and potential to contribute to an active mathematics education program at b___ with a demonstrated interest and experience teaching mathematics in grades 7-12. S___ with inservice teachers, and involvement in building collaborative relationships betw___ 3 specialists in mathematics education. The Northern Arizona University commi___ backgrounds. Applicants should have the experience and commitment necessary to ___ transcripts, curriculum vita, statement of teaching philosophy, and three letters of re___ **University, Box 5717, Flagstaff, AZ 86011.** Review of applications begins Dece___ Opportunity Employer/Affirmative Action institution. Minorities, persons with disab___

NORTHERN ARIZONA STATE UNIVERSITY - DEPARTMENT OF MATHE___ track assistant professorship beginning Fall 1998. Minimum requirements are a do___ program and substantial evidence of high-quality teaching. Candidates should have a___ ability to teach a wide variety of courses including linear and nonlinear program___ department's statistics and actuarial science faculty. Collaboration and consulting ___ University community is composed of faculty, staff, and students from a wide range ___ necessary to work with such a diverse population. Send a letter of application, ___ **Operations Research Screening Committee, Northern Arizona University, Box 5___** will continue until the position is filled. NAU is an Equal Opportunity Employer/A___ women are encouraged to apply.

NORTHWESTERN UNIVERSITY - MATHEMATICS DEPARTMENT - Ap___ September 1998. Priority will be given to exceptionally promising research mathe___ Geometry, Analysis, Dynamical Systems, Probability, Partial Differential Equations, ___ to: **Chairperson, Personnel Committee, Department of Mathematics, Northwest___** should include: (1) the *American Mathematical Society's Application Cover Sheet for* ___ letters of recommendation including one which discusses in some detail the ___ hiring@math.nwu.edu. In order to receive full consideration, applications should b___ opportunity employer committed to fostering a diverse faculty; women and minority ___

OBERLIN COLLEGE - DEPARTMENT OF MATHEMATICS - QP Positi___ Responsibilities include teaching undergraduate courses in mathematics (5/year), su___ hand or expected by August 31, 1998) required. Candidates must demonstrate poten___ fields. Send letter of application, curriculum vitae, academic transcripts (graduate a___ **Mathematics, Oberlin College, Oberlin, OH 44074** by December 15, 1997. Oberli___ leader in the education of blacks. AA/EOE.

ADVERTISING DEADLINE for the January/Fe___

(Overlay postcard form:)

VALIDATING SIGNATURE:

PRINT NAME:

ADDRESS:

REMEMBER: SIGNATURE REQUIRED

1997 AWM Elections
Jenny Baglivo, Clerk
c/o Association for Women in Mathematics
4114 Computer and Space Sciences Bldg.
University of Maryland
College Park, MD 20742-2461

Please
affix
stamp

-more-

ADVERTISEMENTS

OBERLIN COLLEGE - DEPARTMENT OF MATHEMATICS - STATS Position - Full-time, tenure-track position beginning the 1998-99 academic year. Responsibilities include teaching undergraduate courses in statistics and mathematics (5/year), supervising honors students, and sustained scholarly production. Ph.D. degree in Statistics or Mathematics (in hand or expected by August 31, 1998) required. All research specialties in statistics and related fields considered. Candidates must demonstrate potential excellence in teaching. Send letter of application, curriculum vitae, academic transcripts (graduate and undergraduate), and 3 letters of reference to: **Jeffrey Witmer, Department of Mathematics, Oberlin College, Oberlin, OH 44074** by December 15, 1997. Oberlin College admitted women since its founding in 1833 and has been historically a leader in the education of blacks. AA/EOE.

OCCIDENTAL COLLEGE - DEPARTMENT OF MATHEMATICS - Assistant Professor - Pending final approval, applications are invited for a tenure-track position at the assistant professor level. Specialty is open, but some preference may be given to candidates with expertise in one or more of: computer science, discrete mathematics, foundations, geometry, and topology. Occidental College is a selective college of liberal arts and sciences which serves a diverse undergraduate student body of 1,600. The teaching environment encourages curricular and pedagogical innovation. The Mathematics Department has nine full-time faculty. The program supports students pursuing a range of professional and intellectual goals. The normal teaching schedule is the equivalent of five semester courses per year. Semester leaves are granted every four years. Salary is competitive and benefits include a mortgage subsidy program, on-campus child care, tuition grants for children of faculty, and a choice of health care plans. The college is located in northeast Los Angeles with easy access to a number of research institutions. A current resume and three letters of recommendation are required. At least one letter must evaluate teaching experience, performance, and potential. Applicants must also submit a statement of professional plans, interests, and goals. The statement should address teaching and curriculum for undergraduate mathematics at a liberal arts college, as well as mathematical interests and research plans. All materials must be received by February 3, 1998. Address all materials to: **Faculty Search Committee, Department of Mathematics, Occidental College, 1600 Campus Road, Los Angeles, CA 90041-3314.** Occidental College is committed to equity and excellence in education and strongly encourages applications from women and minorities. For more information visit http://www.oxy.edu/departments/math/.

THE OHIO STATE UNIVERSITY - DEPARTMENT OF MATHEMATICS - The Department of Mathematics of The Ohio State University expects to have available at least one tenure-track/tenured position and several visiting positions, effective Autumn Quarter 1998. Candidates in all areas of pure and applied mathematics are invited to apply. Preference will be given to those in applied mathematics for one tenure-track position. The Department will also have available several Hans J. Zassenhaus Assistant Professorships. These term positions are renewable annually up to a total of three years. Significant mathematical research accomplishments or exceptional promise, and evidence of excellent teaching ability are required. Please send a CV and have at least three letters of recommendation sent to: **Professor Ruth Charney, Interim 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.

OREGON STATE UNIVERSITY - DEPARTMENT OF MATHEMATICS - Assistant Professor of Financial Mathematics - The Department of Mathematics at Oregon State University invites applications for a tenure-track position at the assistant professor level in the area of financial mathematics. The department has a particular interest in such applications as actuarial mathematics, natural resource valuation, and banking and corporate finance. The position is a full-time appointment based on an academic year (September 16 thru June 15). Salary commensurate with experience. Appointment begins September 16, 1998. For full consideration, apply by January 15, 1998. Applications will be accepted until the position is filled. If an appropriate candidate cannot be found, the position will be filled with a visitor. For complete job description, list of faculty research areas, statement of selection criteria, and application materials, write to: **Dr. Donald C. Solmon, Staff Selection Committee, Department of Mathematics, Oregon State University, Corvallis, Oregon 97331-4605.** Contact can also be made through Lois Brittin, Graduate Secretary, at (541) 737-5134 or e-mail lois@math.orst.edu.

PACIFIC LUTHERAN UNIVERSITY - DEPARTMENT OF MATHEMATICS - One, possibly three, positions as a tenure track assistant professor of mathematics beginning September 1998. Teach three undergraduate courses per semester. Seeking person with a doctorate in mathematics or mathematical statistics. Teaching experience is preferred; must demonstrate interest in and promise of teaching excellence. Qualifications to teach mathematics as a part of liberal arts education and/or to conduct undergraduate research will influence the hiring decision. A commitment to scholarly activity in its broadest sense is essential. Application should include: letter addressing qualifications and scholarly interests, resume, statement of teaching philosophy in an undergraduate program, transcripts of graduate and undergraduate work, and at least three letters of recommendation (at least two of which address teaching qualifications). Evidence of effective teaching, such as student evaluations, is also desirable. Send to: **Gary Peterson, Chair of Search Committee, Mathematics Department, Pacific Lutheran University, Tacoma, WA 98447.** First consideration will be given to applications received by 15 January 1998. Pacific Lutheran University is a comprehensive institution enrolling 3,600 students. As "New American College," PLU accents integration between liberal arts and professional programs. In the best Lutheran tradition, the university's primary mission is to educate students for lives of thoughtful inquiry, service, leadership, and care. (AA/EOE)

PURDUE UNIVERSITY - DEPARTMENT OF MATHEMATICS - Several tenure-track or two-year research assistant professorships beginning August 1998. Ph.D. by August 1998, exceptional research promise, and excellence in teaching required. Possible positions at the Associate Professor/Professor level beginning August 1998. Ph.D. and excellent research and teaching credentials required. Applicants should have research interests in common with Purdue faculty. Preference will be given to completed applications received by December 15, 1997. Send curriculum vitae arrange to have three letters of recommendation (at least one letter should discuss teaching) sent to: **Carl Cowen, Head, Department of Mathematics, Purdue University, West Lafayette, IN 47907-1395.** Affirmative Action/Equal Opportunity Employer.

RENSSELAER POLYTECHNIC INSTITUTE - DEPARTMENT OF MATHEMATICAL SCIENCES - Applications are invited for a tenure-track assistant professor position in applied mathematics, to begin in August 1998. Applicants are expected to have demonstrated outstanding research potential, and to have a strong interest and ability in teaching. Of particular interest are candidates with a commitment to interdisciplinary research and who are knowledgeable in scientific computation. Applicants should submit a letter of application, a curriculum vita, a description of research interests, and arrange to have three letters of recommendation sent directly to: **Search Committee Chair, Department of Mathematical Sciences, Rensselaer Polytechnic Institute, Troy, NY 12180.** Evaluation of applications will begin October 15, 1997, and will continue until a candidate is selected. Rensselaer is an equal opportunity/affirmative action employer and strongly encourages applications from women and underrepresented minorities.

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, mathematical physics, and ergodic theory. Duties will include research and classroom teaching. Applications received by December 31, 1997 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.

-more-

ADVERTISEMENTS

-more-

ADVERTISEMENTS

TRUMAN STATE UNIVERSITY - DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE - Two tenure-track positions in Mathematics and one in Statistics available August 1998 with a possibility of up to three additional tenure-track positions. Also, one or more temporary positions at the rank of Instructor or Assistant Professor are anticipated. Tenure-track positions are expected to be at the rank of Assistant Professor and will require the Ph.D. All positions will have excellence of teaching as a primary qualification with evidence of potential for scholarship and service also required. Additional qualifications include the desire and ability to support Truman's public, liberal arts mission both within and outside the division. Responsibilities include teaching, advising, working with students on individual projects, involvement in scholarship, and committee service. Truman is Missouri's only statewide, highly selective, public, liberal arts and sciences university and has repeatedly received acclaim in national media both for educational quality and comparatively low cost. The university's 6,000 students and over 700 faculty and staff members play a vital role in the life of Kirksville, a community of 17,500 in northeast Missouri. Thirty-six faculty in the Division of Mathematics and Computer Science serve all the university's students with particular attention to our 270 majors. A complete application consists of a letter of application, a statement of teaching philosophy, vitae, copies of complete undergraduate and graduate transcripts, and three current letters of reference describing recent evidence of the candidate's qualifications for the position. Review of files is expected to begin in early December. All materials should be sent to: **Lanny Morley, Mathematics and Computer Science, Truman State University, Kirksville, MO 63501.** Truman is an Equal Employment Opportunity institution committed to cultural diversity and compliance with the Americans with Disabilities Act.

UNIVERSITY OF AKRON - DEPARTMENT OF MATHEMATICAL SCIENCES - ASSISTANT PROFESSOR - A tenure-track Assistant Professor position is available starting Fall 1998. Applicants should demonstrate potential for excellence in both teaching and research. Two-thirds of the teaching responsibility consists of general education courses. The remainder of the teaching load may consist of other undergraduate and graduate courses. Applicants should possess a Ph.D. in mathematics with specialization in one of the areas of algebra, discrete mathematics, or geometry. Preference will be given to candidates demonstrating experience and/or interest in applications or modeling. The University of Akron is the third largest state university in Ohio. The department offers Bachelor and Master degrees in Applied Mathematics, Mathematics, Statistics, and Computer Science. An Engineering Applied Mathematics doctoral program, emphasizing interdisciplinary applied mathematics, is offered cooperatively through the College of Engineering. See http://www.math.uakron.edu/ for more information about the department. All materials (application letter, curriculum vitae, unofficial copy of graduate transcripts, and three letters of recommendation) should be sent to: **Chair, Mathematical Sciences Search Committee, Department of Mathematical Sciences, University of Akron, Akron, OH 44325-4002.** Inquiries may be sent to stef@uakron.edu. Review of completed applications will begin January 15, 1998 and continue until the position is filled. Women and minorities are encouraged to apply. The University of Akron is an equal education and employment institution.

UNIVERSITY OF CALIFORNIA AT DAVIS - DEPARTMENT OF MATHEMATICS - Regular and Visiting Faculty Positions in Mathematics - Applications are invited for anticipated positions at either the Assistant (tenure track) or Associate Professor (tenured) level and Visiting Research Assistant Professorship (VRAP) positions in the Department of Mathematics, University of California, Davis, effective July 1, 1998. These positions are contingent on budgetary and administrative approval. Appointments of the **Assistant or Associate Professor** positions will be made commensurate with qualifications. Minimum qualifications include a Ph.D. degree in mathematical sciences and great promise in research and teaching. Candidates for the Associate Professor position must have demonstrated outstanding attainment in research and teaching. Duties include mathematical research, undergraduate and graduate teaching, and service. The Department of Mathematics is recruiting at the Assistant and/or the Associate Professor level in the following areas: (1) Analysis/Partial Differential Equations, (2) Discrete Mathematics/Experimental Mathematics, (3) Geometry/Topology, and (4) Scientific Computation/Numerical Analysis/Applied Mathematics. The **VRAP positions** are renewable for a total of three years with satisfactory performance in research and teaching. The VRAP applicants are required to have completed their Ph.D. no earlier than 1994. The Department of Mathematics is Interested in applicants in the following areas for the VRAP positions: 1) Algebra, 2) Analysis/PDEs, 3) Applied Mathematics, 4) Geometry/Topology, 5) Mathematical Physics, 6) Numerical Analysis/Scientific Computation. The positions are open until filled, but to assure full consideration, applications should be received by December 15, 1997. To initiate the application process, request an application package by writing an e-mail message to forms@math.ucdavis.edu. Those who do not have access to e-mail can obtain the package by writing to: **Chair of Search Committee, Department of Mathematics, University of California, Davis, California 95616-8633.** The University of California, Davis, is an affirmative action/equal opportunity employer with a strong institutional commitment to the achievement of diversity among its faculty and staff.

UNIVERSITY OF CALIFORNIA, LOS ANGELES - DEPARTMENT OF MATHEMATICS - Regular Position in Pure and Applied Mathematics - The UCLA Department of Mathematics invites applications for three or more tenure track positions in mathematics. Exceptional promise in research and teaching is required. Positions are generally budgeted at the Assistant Professor level, but sufficiently outstanding candidates will be considered at higher levels. Teaching load is an average of 4.5 quarter courses per year. Positions subject to availability of resources and administrative approval. To apply, send electronic mail to search@math.ucla.edu or open "http://www.math.ucla.edu/~search" on the World Wide Web, or write to: **Tony Chan, Chair, Department of Mathematics, University of California, Los Angeles, CA 90095-1555. Attn: Staff Search.** UCLA is an equal opportunity/affirmative action employer.

UNIVERSITY OF CALIFORNIA, LOS ANGELES - DEPARTMENT OF MATHEMATICS - Temporary Positions - Subject to availability of resources and administrative approval: **(1) Three E.R. Hedrick Assistant Professorships.** Applicants must show very strong promise in research and teaching. Salary $45,000. Three year appointment. Teaching load; four quarter courses per year, which may include one advanced course in the candidate's field. Preference will be given to applications completed by January 6, 1998. **(2) One or two Research Assistant Professorships in Computational and Applied Mathematics.** Applicants must show very strong promise in research and teaching. Salary $45,000. One year appointment, probably renewable up to two times. Teaching load: at most four quarter courses per year, which may include one advanced course in the candidate's field. Preference will be given to applications completed by January 6, 1998. **(3) One Adjunct Assistant Professorship or Lectureship 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 quarter programming courses and one more advanced quarter course per year. One year appointment, probably renewable once. Salary $48,400. 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 quarter programming courses per year. One-year appointment, probably renewable one or more times, depending on the needs of the program. Salary is $40,656 or more, depending on experience. Preference will be given to applications completed by February 1, 1998. **(4) An Adjunct Assistant Professorship.** One year appointment, probably renewable once. Strong research and teaching background required. Salary $41,900-$43,900. Teaching load: five quarter courses per year. **(5) Possibly one or more positions for visitors.** To apply, send electronic mail to: search@math.ucla.edu or open "http://www.math.ucla.edu/~search" on the World Wide Web, or write to: **Tony Chan, Chair, Department of Mathematics, University of California, Los Angeles, CA 90095-1565, Attn: Staff Search.** UCLA is an equal opportunity/affirmative action employer.

DO YOU HAVE A NEW ADDRESS? Please use the **form on the BACK COVER** or drop us an E-MAIL: awm@math.umd.edu

-more-

ADVERTISEMENTS

UNIVERSITY OF CALIFORNIA AT SANTA BARBARA - DEPARTMENT OF STATISTICS AND APPLIED PROBABILITY - invites applications for two tenure-track positions in Statistics: Assistant/Associate Professor specializing in Applied Statistics, and Assistant Professor specializing in Theoretical Statistics. Start July 1, 1998. Require Ph.D. in Statistics and demonstrated potential for excellence in research and teaching. Current resume, papers and three reference letters to: **David Hinkley, Department of Statistics and Applied Probability, University of California, Santa Barbara, CA 93106-3110, USA.** Deadline December 31, 1997. The University of California is an Equal Opportunity and Affirmative Action employer. Women and minorities are encouraged to apply.

UNIVERSITY OF CALIFORNIA AT SANTA CRUZ - MATHEMATICS DEPARTMENT - The Mathematics Department at the University of California, Santa Cruz is recruiting for one or more tenure-track Assistant Professors Step I-III in the areas of Algebra and Number Theory; **position #510.** The position(s) would be effective July 1, 1998, contingent on budgetary approval. The teaching load is four one-quarter courses per year. Minimum Qualifications: Ph.D. [or equivalent] in Mathematics and demonstrated achievements or potential for excellence in research, teaching and professional service. Step commensurate with experience. Salary Range: $39,600-43,900. Application Deadline: January 16, 1998. Please refer to position number indicated above in your correspondence. Applicants should send a curriculum vitae, a summary of their research and teaching experience and four confidential letters of recommendation (at least one letter addressing teaching experience and ability) to: **Recruitment Committee, Mathematics Department, University of California, Santa Cruz, CA 95064.** Inquiries [not applications] can be sent to mathrcr@cats.ucsc.edu. UCSC is an AA/EEO/IRCA employer.

UNIVERSITY OF CALIFORNIA AT SANTA CRUZ - MATHEMATICS DEPARTMENT - **Visiting Assistant Professorships** - The Department expects to have Visiting Assistant Professorships in Mathematics beginning Fall 1998 (subject to availability of funding). Appointees will be expected to teach, pursue their research, and perform service. These positions are available for periods ranging from one quarter to the full academic year, with a possible extension. Minimum Qualifications: Ph.D. [or equivalent] in Mathematics, or a closely related field, and demonstrated achievements or potential for excellence in research, teaching and service. Salary: $39,600. Available: Fall 1998. Application Deadline: January 16, 1998. Please refer to **#T97-15.** Applicants should send vitae, summary of research and teaching experience and three letters of recommendation (at least one letter addressing teaching experience and ability) to: **Recruitment Committee, Mathematics Department, University of California, Santa Cruz, CA 95064.** Full consideration is only guaranteed for applications received by the deadline. UCSC is an AA/EEO/IRCA employer. Inquiries (only) can be sent to mathrcr@cats.ucsc.edu.

UNIVERSITY OF COLORADO AT BOULDER - DEPARTMENT OF MATHEMATICS - Applications are invited for two tenure track faculty positions at the Assistant Professor level beginning in the fall of 1998, one in Probability and one in Classical Analysis. Candidates should have earned a Ph.D. in Mathematics by August 1998, have demonstrated interest and ability in teaching, and have experience in and commitment to mathematical research. These positions require teaching at various levels, mathematical research, and service. Applications, including a resume and four letters of reference, should be sent to: **Search Committee, Department of Mathematics, Campus Box 395, University of Colorado, Boulder, CO 80309-0395.** Reviewing of applications will begin December 15, 1997, and will continue until the position is filled. The University of Colorado at Boulder strongly supports the principle of diversity in all its forms. We are interested in receiving applications from women, ethnic minorities, persons with disabilities, veterans, and veterans of the Vietnam era.

UNIVERSITY OF COLORADO AT DENVER - DEPARTMENT OF MATHEMATICS - The Department of Mathematics at the University of Colorado at Denver is seeking to fill a tenure-track position at the rank of Assistant Professor, beginning August 1998. Position is contingent on budgetary approval. We offer B.S., M.S. and Ph.D. degrees with optional focus in one of the six areas: computational mathematics, discrete mathematics, engineering mathematics, operations research, probability and statistics. These also comprise active areas of research of our resident faculty. Applicants are expected to show strong potential for teaching and research and have a commitment to professional service. Applicants must have, or expect to receive by July 30, 1998, a Ph.D. in one of the mathematical sciences. For this position, the area of greatest interest is mathematics education. The candidate should demonstrate evidence of research in this area, experience with teaching using technology, and potential to coordinate and improve the undergraduate service courses offered by the Department. To apply, please send a current vita, a statement of teaching philosophy and experience, list of publications, a statement of research plans and goals, and arrange to have three letters of recommendation sent to: **Leopoldo Franca, Search Committee Chair, Mathematics Department, Campus Box 170, University of Colorado at Denver, P.O. Box 173364, Denver, CO 80217-3364.** Our fax number is 303-556-8550. For more information on our department and university visit our web site at http://www-math.cudenver.edu. Review of applications will begin on December 1st, 1997 and continue until the position is filled. The University of Colorado at Denver is an affirmative action, equal opportunity employer, and educator with a strong commitment to diversity and to program access for persons with disabilities. Alternative formats of this announcement are available upon request. The Colorado Open Records Act (C.R.S. 24-72-204) requires that an applicant make a written request at the time of application that the application be kept confidential. Applications without such a written request for confidentiality are open records & must be disclosed upon request.

UNIVERSITY OF CONNECTICUT - DEPARTMENT OF MATHEMATICS - **Assistant Professor** - The Department of Mathematics anticipates an opening for a tenure-track position at the Assistant Professor level starting fall 1998. An appointment at a higher level is possible in exceptional cases. Candidates must have a Ph.D. in Mathematics and demonstrate evidence of excellent teaching ability and outstanding research potential. Preference will be given to candidates whose research interests strengthen existing programs within the department. Salary commensurate with experience. Review of applications will begin January 15, 1998, and continue until the position is filled. Send resume and at least three letters of recommendation to: **Head, Department of Mathematics, U-9, University of Connecticut, Storrs, CT 06269-3009.** The University encourages applications from under-represented groups including minorities, women and people with disabilities. (Search# 98A121)

UNIVERSITY OF DAYTON - DEPARTMENT OF MATHEMATICS - Applications are invited for two tenure track positions at the assistant professor level to begin in August, 1998. For the first position, a Ph.D. in statistics, a strong commitment to research and the potential to become an effective teacher are required. Responsibilities include developing and maintaining a research agenda, as well as teaching, advising, and curriculum development in undergraduate and Masters degree level programs. For the second position, a Ph.D. degree in mathematics education or a Ph.D. degree in mathematics with a strong commitment to mathematics education at the K-12 level and the potential to become an effective teacher are required. We seek an individual who will actively develop relations between the university and the community, will work with the appropriate faculty in the School of Education, and will actively pursue grants to develop professional development programs for teachers. Responsibilities include teaching, advising, and curriculum development in an undergraduate mathematics education program. The teaching responsibilities are three classes each semester, primarily in the undergraduate mathematics education curriculum and in the undergraduate mathematics curriculum. The University of Dayton is a private comprehensive Catholic university founded by the Society of Mary in 1850. It has more than 6,000 undergraduate and 3,000 graduate students. The Department of Mathematics offers B.A. degrees in mathematics and an M.S. degree in applied mathematics. The School of Education offers a B.S. degree in education with certification in elementary and secondary teaching. Moreover, we offer B.A. and B.S. degrees in mathematics with certification in secondary teaching. The selection process will begin on December 1, 1997, and continue until the position is filled. Please send a resume and three letters of recommendation to: **the Hiring Committee, Department of Mathematics, University of Dayton, Dayton, Ohio 45469-2316** or to math@udayton.edu. Please include an e-mail address in your correspondence. Further information can be obtained at http://www.udayton.edu/~mathdept. The University of Dayton is an equal employment opportunity employer. Women, minorities, individuals with disabilities, Vietnam era veterans are strongly encouraged to apply.

-more-

ADVERTISEMENTS

UNIVERSITY OF FLORIDA - DEPARTMENT OF MATHEMATICS - Applications are invited for tenure track positions at the assistant/associate professor level in applied mathematics, and at the assistant professor level in combinatorics, differential geometry & mathematical physics, and algebra. Appointments commence in August 1998. Applicants must show strong research promise and are expected to excel in teaching undergraduate mathematics courses. Applicants should forward a curriculum vitae and a list of publications to: **Chair of Search Committee, Department of Mathematics, 358 Little Hall, University of Florida, P.O. Box 118105, Gainesville, FL 32611-8105.** Applicants should supply evidence of commitment to teaching and should ask referees to send three letters of recommendation directly to the address above. Completed applications and supporting letters are due December 8, 1997. The Department especially welcomes applications from women and minority candidates. The University of Florida is an EEO/AA institution. Anyone requiring special assistance in completing the application should contact the search committee chairperson.

UNIVERSITY OF GEORGIA - DEPARTMENT OF MATHEMATICS - Two postdoctoral positions, with the title, part time instructor postdoctoral associate, offered by the Department of Mathematics, and partially supported by a recent Presidential Foundation Fellowship awarded to faculty member Andrew Granville. The department especially encourages applications from women and minorities. Duties consist of teaching one course per quarter and conduction original research. One of these positions will be in number theory. The other may be in any other area, although applicants are suggested to identify a member of the current faculty with whom they would like to work. Both appointments will be available for up to two years and begin in Fall 1998. Applicants must exhibit potential for significant research and the skills necessary to be an excellent teacher. Application deadline: February 1, 1998. To apply send a vita with a list of publications and four letters of recommendation to: **Kevin Clancey, Head, Department of Mathematics, The University of Georgia, Athens, GA 30602.** The University of Georgia is an Equal Opportunity/Affirmative Action Employer.

THE UNIVERSITY OF IOWA - DEPARTMENT OF MATHEMATICS - The Department of Mathematics of The University of Iowa invites applications for the following position: **1.)** Tenure-track assistant or early associate professorship, starting in August 1998, in the broadly interpreted area of numerical analysis. Exceptional candidates at higher rank may be considered. Selection will be based on evidence of outstanding research accomplishments or potential, and excellent teaching. A Ph.D. or equivalent is required. **2.)** Pending availability of funds, one or more visiting positions for all or part of the 1998-99 academic year. Selection will be based on research expertise and teaching ability. Preference will be given to applicants whose scholarly activity is of particular interest to members of the current faculty. Women and minority candidates are especially urged to apply for the above positions. Formal screening will begin December 15, 1997; applications will be accepted until the positions are filled. To apply, send a complete vita and have three letters of recommendation sent to: **Professor Bor-Luh Lin, Chair, Department of Mathematics, The University of Iowa, Iowa City, Iowa 52242.** The University of Iowa is an Equal Employment Opportunity and Affirmative Action Employer.

UNIVERSITY OF KANSAS - DEPARTMENT OF MATHEMATICS - The Department of Mathematics of the University of Kansas seeks an internationally renowned scholar for the **Henry J. Bischoff professorship.** This position is one of 23 distinguished chairs in the College of Liberal Arts and Sciences. In addition to an outstanding research record, applicants for the position must have a demonstrated interest in teaching mathematics. Interested individuals should submit a letter of inquiry and a vita. All inquiries will be kept confidential. Review of applications will begin January 15, 1998 and will continue until the position is filled. The University of Kansas is an EO/AA employer. Send correspondence to: **Charles J. Himmelberg, Chairman, Department of Mathematics, 405 Snow Hall, University of Kansas, Lawrence, KS 66045.**

UNIVERSITY OF KANSAS - DEPARTMENT OF MATHEMATICS - Applications are invited for a tenure-track position at the assistant professor level beginning August 18, 1998 or as negotiated. (This position is contingent on final budgetary approval.) Preference will be given to candidates in algebra/algebraic geometry and otherwise to candidates in pure or applied mathematics whose specialties mesh well with those already represented in the department. Candidates must have a Ph.D. or its requirements completed by August 15, 1998. Postdoctoral experience is preferred. Letter of application, detailed resume with description of research, completed *AMS standardized application form,* and three recommendation letters should be sent to: **C.J. Himmelberg, Chairman, Department of Mathematics, 405 Snow Hall, University of Kansas, Lawrence, KS 66045-2142.** Deadlines: Review of applications will begin on January 1, 1998 and will continue until the positions are filled. EO/AA Employer.

UNIVERSITY OF MARYLAND, BALTIMORE COUNTY - DEPARTMENT OF MATHEMATICS AND STATISTICS - Assistant Professor - The Department of Mathematics and Statistics at the University of Maryland Baltimore County (UMBC) has a tenure-track opening at the assistant professor level in applied mathematics beginning Fall 1998. The candidate should have an earned doctorate in mathematics or a related field and be able to interact with one or more of the department's existing groups in optimization, numerical analysis, PDEs and systems theory. The applicant should have an active, independent research program and strong potential for obtaining external funding. The department offers B.S., M.S. and Ph.D. degrees in applied mathematics and statistics. Please refer to the web page http://www.math.umbc.edu for more information. Send resume, a summary of current research, and three letters of reference to: **Applied Math Recruiting Committee, Department of Mathematics and Statistics, University of Maryland, Baltimore County, Baltimore, MD 21250.** The review of the received applications will begin in January 1998. UMBC is an AA/EOE.

UNIVERSITY OF MARYLAND AT COLLEGE PARK - DEPARTMENT OF MATHEMATICS - Applications are invited for tenured and tenure-track positions in the Department of Mathematics from researchers with strong interests in at least one of the following three fields: applied analysis, numerical analysis and scientific computation. Exceptional research and teaching required. Successful candidates will integrate their research with our educational program. Candidates at all levels will be considered. Priority will be given to applications received by November 1, 1997. The appointments will commence in the Fall of 1998. 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 MICHIGAN - DEPARTMENT OF MATHEMATICS - Interdisciplinary Mathematics - Assistant Professor positions are available through an Interdisciplinary Initiative in the Department of Mathematics. Positions supported by NSF award to Michigan Research Group. The positions are intended to be three years in duration with a two course per year teaching load. In addition to a strong mathematical background, successful candidates will have a research program with links to areas outside mathematics such as engineering or the natural sciences. The Mathematics Department at Michigan has an active group in interdisciplinary mathematics; areas of research include fluid dynamics and numerical analysis, control theory and mechanics, mathematical biology, mathematical physics, algorithms and complexity, optics, and finance. Applications, including a vita, brief statement of research interests and interdisciplinary activities, and four letters of recommendation (one specifically commenting on teaching) should be sent to: **Interdisciplinary Initiative, Department of Mathematics, University of Michigan, Ann Arbor, MI 48109-1109.** For full consideration complete applications should be received before January 15, 1998. The University of Michigan is a nondiscriminatory affirmative action employer.

-more-

ADVERTISEMENTS

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL - MATHEMATICS DEPARTMENT - Tenure Track - Applications are invited for one tenure track assistant or associate professor position in applied mathematics effective Fall 1998. An associate professor position would be available for an exceptional candidate in applied scientific computation. A strong research record and doctorate in mathematics, applied mathematics or a closely related field are required. Preference is given to candidates with a commitment to interdisciplinary university research, collaborations with industry or government, and teaching including development of applied math curricula at undergraduate and graduate levels. This position contributes toward a five-year plan to build a strong applied and computational mathematics group interacting with existing strengths at UNC in mathematics and in materials, marine, biomedical, and environmental sciences. A copy of this ad may be found on our World Wide Web page at http://www.math.unc.edu/General/Job.announcements. Send curriculum vitae, abstract of current research and four letters of recommendation to: **Professor M. Gregory Forest, Chair, Applied Mathematics Search Committee, Dept. of Mathematics, CB #3250, Phillips Hall, UNC-Chapel Hill, Chapel Hill, NC 27599-3250.** EO/AA Employer. Women and Minorities are encouraged to apply and to identify themselves. Applicants are encouraged to submit a statement of teaching interests and goals. Completed applications received by January 1, 1998 are assured of full consideration.

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO - DEPARTMENT OF MATHEMATICAL SCIENCES - Assistant Professor specializing in Stats or related area, beginning August 1, 1998. Position requires completion of Ph.D. by appointment date, & commitment to high quality research, teaching, & consulting. Applicants should send letter of application including a separate statement about their research, teaching & consulting along w/ vita, transcripts & 3 letters, of reference to: **David A. Ludwig, Chair, Statistics Search Committee, Dept. of Mathematical Sciences, UNCG, Greensboro, NC 27412-5001.** Applicants should consult http://www.uncg.edu/mat/search.html before applying. Application closing date is January 15, 1998. EEO/AA:W/M/V/D.

UNIVERSITY OF NORTHERN COLORADO - DEPARTMENT OF MATHEMATICAL SCIENCES- Assistant Professor of Mathematics Education - (#20002) - Tenure track position. Earned doctorate in Mathematics Education with a Master's Degree in Mathematics or doctorate in Mathematics with a strong background in mathematics education. Teaching duties will include undergraduate mathematics content, secondary teacher education program, and graduate mathematics education. Assignment may include off-campus instruction and assignment in partnership schools. Full-time load consists of nine hours of teaching per semester in addition to research and service. Candidate must demonstrate knowledge of current trends in mathematics education and provide evidence of teaching effectiveness. Preference will be given to candidates with a minimum of three years of teaching experience on the K-12 level, experience with preservice and inservice teachers, and demonstrated success in grant writing and publication. Application deadline and additional materials: January 15, 1998 or until position filled; letter of application to include statement of teaching philosophy, vita, graduate transcripts, 3 letters of recommendation. Submit materials to: **Dr. Robert Mayes, Department of Mathematical Sciences, University of Northern Colorado, Greeley, CO 80639.** Filling position contingent upon funding. AA/EEO. Women, minorities, and other protected classes are encouraged to apply.

UNIVERSITY OF PENNSYLVANIA - DEPARTMENT OF MATHEMATICS - Junior Positions in Mathematics - Several positions will be available beginning July 1, 1998. Candidates should have strong research credentials and be recognized as potentially successful teachers of undergraduate and graduate students. Send resume and three letters of reference to: **Personnel Committee, Department of Mathematics, University of Pennsylvania, Philadelphia, PA 19104-6395.** These are due by December 15, 1997. The University of Pennsylvania is an equal opportunity, affirmative action employer.

UNIVERSITY OF PENNSYLVANIA - DEPARTMENT OF MATHEMATICS - Tenure Positions in Mathematics - We anticipate that commencing July 1, 1998, there may be one or more tenure positions available in the following areas: algebra, analysis, geometry/topology and discrete mathematics. These positions are for candidates with outstanding internationally recognized research achievements who are successful teachers of undergraduate and graduate students. Rank and salary will depend upon experience. Write to: **Personnel Committee, Department of Mathematics, University of Pennsylvania, Philadelphia, PA 19104-6395.** The University of Pennsylvania is an equal opportunity, affirmative action employer.

UNIVERSITY OF TENNESSEE - MATHEMATICS DEPARTMENT - The Mathematics Department of the University of Tennessee (www.math.utk.edu) seeks to fill a tenure-track assistant professorship with an **Outreach Mathematician (OM).** The duties of the OM will be to foster close relations between the University and the community colleges and/or high schools across the state as well as teach in the department. A Ph.D. in Mathematics or a doctoral degree in another discipline with a Masters of Science degree in Mathematics is required together with a clear commitment to outreach activities. Some postdoctoral experience is preferred, but not required. Dedication to teaching is paramount. Employment begins August 1, 1998. We seek a person who will participate in the education program of the department, actively pursue grants to conduct workshops for teachers, carry out systematic school visits, become involved in state-wide mathematics education reform, and work with the appropriate faculty in the College of Education. Interested applicants should arrange to have a vita, three reference letters, a statement of accomplishments, qualifications, plans for outreach activities, and evidence of quality teaching sent to: **Professor John B. Conway, OM Search, Mathematics Department, University of Tennessee, Knoxville, TN 37996-1300.** Electronic applications are not acceptable. Use of the recent *AMS application form* is encouraged. Review of applications will begin January 1, 1998 and will continue until the position is filled. UTK is an EEO/AA/Title IX/Section 504/ADA/ADEA Employer.

UNIVERSITY OF TEXAS AT AUSTIN - DEPARTMENT OF MATHEMATICS - Openings for Fall 1998 include a number of Instructorships, some of which have R.H. Bing Faculty Fellowships attached to them, and two or more positions at the tenure-track/tenure level. Instructorships at The University of Texas at Austin are postdoctoral appointments, renewable for two additional years. It is assumed that applicants for Instructorships will have completed all Ph.D. requirements by August 31, 1998. Other factors being equal, preference will be given to those whose doctorates were conferred in 1997 or 1998. Candidates should show superior research ability and have a strong commitment to teaching. Consideration will be given only to persons whose research interests have some overlap with those of the permanent faculty. Duties consist of teaching undergraduate or graduate courses and conducting independent research. The projected salary is $33,500 for the nine-month academic year. Each R.H. Bing Fellow holds an Instructorship in the Mathematics Department, with a teaching load of two courses in one semester and one course in the other. The combined Instructorship-Fellowship stipend for nine months is $36,500, which is supplemented by a travel allowance of $1,000. Pending satisfactory performance of teaching duties, the Fellowship can be renewed for two additional years. Applicants must show outstanding promise in research. Bing Fellowship applicants will automatically be considered for other departmental openings at the post-doctoral level, so a separate application for such a position is unnecessary. An applicant for a tenure-track or tenured position must present a record of exceptional achievement in her or his research area and must demonstrate a proficiency at teaching. In addition to the duties indicated above for Instructors, such an appointment will typically entail the supervision of M.A. or Ph.D. students. The salary will be commensurate with the level at which the position is filled and the qualifications of the person who fills it. Those wishing to apply for any of the aforementioned positions are asked to send a vita and a brief research summary to: **Department of Mathematics, The University of Texas at Austin, Austin, Texas 78712, c/o Recruiting Committee.** Transmission of the preceding items via e-mail (address: recruit@math.utexas.edu) is encouraged. Applications must be supported by three or more letters of recommendation, at least one of which speaks to the applicant's teaching credentials. The screening of applications will begin on December 1, 1997. The University of Texas at Austin is an equal opportunity employer.

ADVERTISEMENTS

UNIVERSITY OF WASHINGTON - DEPARTMENT OF MATHEMATICS - Applications are invited for several positions starting September 1998. The positions are initially budgeted as tenure-track Assistant Professorships, but extremely outstanding candidates may be considered at the Associate Professor and Professor levels. Applicants must have the Ph.D. degree in hand by the starting date. Duties include undergraduate and graduate teaching and independent research. Applications should include a curriculum vitae, statement of research and teaching interests, three letters of recommendation, and a Mathematics Subject Classification (as found in the December index volume of Mathematical Reviews) of the primary research interest. Applications should be sent to: **Appointments Committee Chair, Department of Mathematics, Box 354350, University of Washington, Seattle, WA 98195-4350.** Priority will be given to applications received by December 15, 1997. The University of Washington is building a culturally diverse faculty and strongly encourages applications from female and minority candidates. The University is an Equal Opportunity/Affirmative Action employer. Availability of positions is subject to budgetary approval.

UNIVERSITY OF WISCONSIN AT EAU CLAIRE - MATHEMATICS DEPARTMENT - Probationary faculty position in Mathematics. Starting August 1998. An earned doctorate is required. Preference will be given to those individuals with an earned doctorate in statistics or a substantial statistics component in a mathematical doctorate. Ability to contribute through the use of technology is also desirable. The position responsibilities include teaching undergraduate courses, scholarly activity, academic advising, and service. Evidence of excellent teaching potential is required. Send *AMS Application Cover Sheet*, letter of application, vitae, completed transcripts, and 3 letters of recommendation, including an evaluation of teaching effectiveness, to: **Tom Wineinger, Mathematics Department, UW-Eau Claire, Eau Claire, WI 54702-4004.** For priority consideration, a completed application must be received by December 5, 1997. However, screening will continue until the position is filled. UW-Eau Claire is an Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF WISCONSIN, MILWAUKEE - DEPARTMENT OF MATHEMATICAL SCIENCES - Applications are invited for an assistant professor position in an industrial mathematics research area: statistics, operations research, or applied analysis. Responsibilities include developing curricula, MS theses, and internships. Preference given to candidates with experience with industrial problems. Send 5 letters of recommendation by January 9, 1998 to: **David Schultz, Mathematical Sciences, University of Wisconsin-Milwaukee, P.O. Box 413, Milwaukee, WI 53201.** An equal opportunity affirmative action employer, the University of Wisconsin-Milwaukee strongly encourages applications from minority and women candidates.

UNIVERSITY OF WYOMING - DEPARTMENT OF MATHEMATICS - Tenure-Track Position in Analysis - The University of Wyoming Mathematics Department (Web site http://math.uwyo.edu/) invites applications for a tenure-track Assistant Professorship in Analysis, to start August 1998. Applicants must demonstrate strong ability in research, breadth of mathematical knowledge, strong commitment to undergraduate and graduate teaching, and willingness to supervise masters and doctoral students. Candidates in all areas of analysis will be considered; however, we are particularly interested in strengthening our existing research in function theory, functional, geometric and harmonic analysis. Complete applications consist of curriculum vitae including publication list, a summary of research interests, a statement of teaching qualifications, and three letters of recommendation, sent directly to: **Myron B. Allen, Head, Department of Mathematics, University of Wyoming, Laramie, WY 82071-3036.** Applications received by 15 January 1998 will receive first consideration. The University of Wyoming is an affirmative action/equal-opportunity employer, and we encourage women and underrepresented minorities to apply.

UNIVERSITY OF WYOMING - DEPARTMENT OF MATHEMATICS - Applied Mathematics - The Department of Mathematics invites applications for a tenure-track Assistant Professorship in applied mathematics. We seek candidates with an earned doctorate, proven teaching ability, and strong research in areas of interest in the Department, including numerical analysis, partial differential equations, fluid mechanics, and porous media. Applications received by January 15, 1997, will receive first consideration. For more information, visit our Web site, http://math.uwyo.edu/. The University of Wyoming is an equal opportunity, affirmative action employer, and we encourage applications from women and underrepresented minorities. Please send vitae, three letters of reference, and a statement of teaching qualifications to: **Myron B. Allen, Head, Department of Mathematics, University of Wyoming, Laramie, WY 82071-3036, USA.**

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY - DEPARTMENT OF MATHEMATICS - Applications are invited for senior faculty positions in the area of numerical analysis with emphasis on computational methods for partial differential equations. We expect to make several offers at the associate professor level and above. Successful candidates must possess a strong continuing record of internationally recognized research in computational mathematics and applications. A proven record of academic leadership, demonstrated by the candidate's dedication to excellence in research, teaching, graduate student advising, and postgraduate supervision, is desirable. The Department of Mathematics has strong traditional links with the College of Engineering, and appointees would be expected to foster and encourage these ties. The intellectual climate for applied mathematics at Virginia Tech is lively and challenging. The Department has an active group of applied mathematicians in the areas of control and optimization, numerical analysis, stochastic processes, ordinary differential equations, partial differential equations and integro-differential equations. In addition, the Interdisciplinary Center for Applied Mathematics (ICAM) is a University Center which facilitates interactions among the faculty at Virginia Tech, industry and other research institutions. Faculty in the Virginia Tech Mathematics Department have access to excellent computational facilities as well as to several national high performance computing centers. Applications will be accepted until all positions are filled. Applicants should send a vita and have five letters of recommendation sent to: **Numerical Analysis Search Committee, Department of Mathematics, Virginia Tech, Blacksburg, VA 24061-0123.** Virginia Tech has a strong commitment to the principle of diversity and, in that spirit, seeks a broad spectrum of candidates including women, minorities, and people with disabilities. Individuals with disabilities desiring accommodations in the application process should contact Werner Kohler, Department of Mathematics, 540-231-8283 (TDD/PC 1-800-828-1120; Voice 1-800-828-1140).

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY - DEPARTMENT OF MATHEMATICS - Applications are solicited for tenure-track positions at the assistant or associate professorship levels in the area of numerical analysis/scientific computing; we anticipate making one or more appointments. Candidates must have a Ph.D. in mathematics or equivalent, with a strong record or demonstrated potential in research and teaching. We seek candidates who will augment existing faculty focus in the areas of the numerical treatment of PDEs, control and optimization, and computational linear algebra. Send a letter of application, curriculum vitae, summary of research plans, together with four letters of recommendation (one of which addresses teaching skills) to: **Computational Mathematics Search Committee, Department of Mathematics, Virginia Tech, Blacksburg, VA 24061-0123.** Review of applications will begin on December 15, 1997 and will continue until available positions are filled. Virginia Tech has a strong commitment to the principle of diversity and, in that spirit, seeks a broad spectrum of candidates including women, minorities, and people with disabilities. Individuals with disabilities desiring accommodations in the application process should contact Werner Kohler, Department of Mathematics, 540-231-8283 (TDD/PC 1-800-828-1120; Voice 1-800-828-1140).

-more-

ADVERTISEMENTS

REMEMBER: ELECTION BALLOTS must be received by   DECEMBER 1, 1997

# # #

ASSOCIATION FOR WOMEN IN MATHEMATICS
1997/1998 MEMBERSHIP FORM

> 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. Questions? (301) 405-7892, or awm@math.umd.edu

LAST NAME   FIRST NAME   M.I.

ADDRESS_____

_____

_____

Home Phone: Work Phone: Email:

Please include this information in: (1) the next **AWM Speaker's Bureau** (Yes/No) _____ (2) the next **AWM Membership Directory** (Yes/No) _____

PROFESSIONAL INFORMATION:

If student, GRADUATE or UNDERGRADUATE? (circle one)

Position:
Institution/Company:
City, State, Zip:

DEGREES EARNED:

Degree(s)   Institution(s)   Year(s)

Doctorate:
Master's:
Bachelor's:

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.. $ 40 _____

2ND FAMILY MEMBERSHIP.. $ 30 _____
(NO newsletter) Please indicate regular family member: _____

CONTRIBUTING MEMBERSHIP.. $100 _____
Indicate if you wish for this contribution to remain anonymous: _____

RETIRED or PART-TIME EMPLOYED MEMBERSHIP (circle one).. $ 20 _____

STUDENT or UNEMPLOYED MEMBERSHIP (circle one).. $ 10 _____

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.

☐ I am enclosing a DONATION to the **"AWM GENERAL FUND"** $ _____

☐ I am also enclosing a DONATION to the **"AWM ANNIVERSARY ENDOWMENT FUND"** $ _____

INSTITUTIONAL DUES SCHEDULE

	U.S.	FOREIGN	
_____ Sponsoring CATEGORY I (may nominate 10 students for membership)...............................	$120	$200	_____
_____ Sponsoring CATEGORY II (may nominate 3 students for membership).............................	$ 80	$105	_____

INSTITUTIONAL MEMBERS WILL RECEIVE **ONE** FREE JOB ADVERTISEMENTS (*up to* **four** *lines*) IN OUR NEWSLETTER PER YEAR. Advertising deadlines are the 1st of every EVEN month. All institutions advertising in the AWM Newsletter are Affirmative Action/Equal Opportunity Employers. Also, Institutions have the option to nominate students to receive the newsletter as part of their membership. NOTE: List names and addresses of student nominees on opposite side or attach separate page. [ADD $10 ($18 for foreign members) for each additional student add-on over initial 10 students for Category I; over initial 3 students for Category II]

N/D97

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_____

☐ You may include this information in the next AWM Membership directory.

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

ASSOCIATION
FOR WOMEN IN
MATHEMATICS

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

Marie A. Vitulli
University of Oregon
Dept. of Mathematics
Eugene, OR 97403

Printed in the U.S.A.