

AWM

ASSOCIATION
FOR WOMEN IN
MATHEMATICS

Volume 36, Number 6

NEWSLETTER

November–December 2006

President's Report

Congratulations to Our Authors

We learned at press time that *Complexities: Women in Mathematics*, edited by Anne M. Leggett and Bettye Anne Case, has won one of four 2006 Book Awards sponsored by Alpha Sigma Nu and the Association of Jesuit Colleges and Universities. The books were judged on the basis of “scholarship, significance of topic to scholars across several disciplines, authority in interpretation, objectivity, presentation, and style,” and theirs was the winning entry in Mathematics and Computer Science. Congratulations, Anne and Bettye Anne (and Vickie and everyone who helped with the conception and execution of this project)!

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Women Doing Mathematics Internationally

This has been a busy period, with AWM members traveling east and west and meeting mathematicians—some of them fellow AWM members—from all over the world. It has also been a period to work on several projects with our companion society, EWM (European Women in Mathematics).

For me, the summer tour began with an unexpected chance to be a member of the Canadian delegation to the IMU's General Assembly in Santiago de Compostela, Spain. (There was a last-minute emergency for one of the Canadian delegates, and he could not make the trip.) The General Assembly is the amazing event, both very formal and delightfully collegial, by which the international community, in the form of the IMU, governs itself. Of course, the IMU does not make the rules by which most of us live our professional lives: it does not set salaries or promotion guidelines for universities, and it does not even have much to say about how journals make their editorial decisions. But it runs the International Congress, chooses the winners of the Fields Medal, and, increasingly, voices the concerns of the worldwide mathematical community. At this meeting, those concerns included electronic

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The purpose of the Association for Women in Mathematics is

- to encourage women and girls to study and to have active careers in the mathematical sciences, and
- to promote equal opportunity and the equal treatment of women and girls in the mathematical sciences.

AWM was founded in 1971 at the Joint Meetings in Atlantic City.

The *Newsletter* is published bi-monthly. Articles, letters to the editor, and announcements are welcome.

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communication and digitization of the mathematical archive, capacity-building in developing countries, an interest in mathematics education, and—yes—the status of women. The new Executive Committee (the powerful governing body of the IMU) will have two women among its ten members. Ragni Piene, an algebraic geometer from Norway, serving her second term, is now joined by Cheryl Prager, an algebraist from Australia. Surely this is the first time there have been two women on the EC. The General Assembly also approved a set of guidelines for choosing speakers for the ICM that mentions the Emmy Noether lecture, currently institutionalized in the organization of the Congress. And I should add that the whole thing was carried out with great style: we were housed in a luxury hotel, taken on tours and fed magnificent feasts, and even treated to a concert.

Then we went on to the opening of the Congress itself. King Juan Carlos presided over the opening ceremony. The news coverage in North America was dominated by the announcement that Grigori Perelman had refused to accept his award, but the focus at the event was on the winners of all the awards—the Fields Medal and the Nevanlinna and Gauss prizes—and on the certainty expressed by a number of experts that Perelman’s proof of the Poincaré conjecture is complete.

The Emmy Noether Lecture took place on the fourth day of the Congress. Yvonne Choquet-Bruhat delivered an impressive talk on “Mathematical Problems in General Relativity” and was introduced by former AWM President Linda Rothschild. Later that day was the panel discussion, “Moving (Mostly) Forward: Women in Mathematics,” organized and moderated by Bettye Anne Case. Eight women joined Case on the panel from AWM and from EWM, from the Middle East and South America, and the discussion brought lively comments from women and men around the world. Both the talk and the panel were very well attended. A first installment of reports on these activities and on the Math Across Cultures session, along with an ICM photo spread, will appear in the January–February issue.

The ICM attracts over four thousand participants and gets news coverage in every part of the globe. The second international adventure reported in this column was on a very different scale: a workshop on “Women in Mathematics” that took place at Banff during the week of September 23–28, with 35 participants and no news coverage at all—not even a printed program! This event was a consequence of the funding renewal of BIRS (the Banff International Research Station), a conference center in the Canadian Rockies that runs five-day workshops year-round and is now jointly funded by the Canadian, US and Mexican governments. The renewal proposal promised a week devoted to women each year, and last winter Malgorzata Dubiel,

who teaches at Simon Fraser University, got a phone call telling her that the fourth week in September, 2006, was hers!

The Committee on Women of the Canadian Mathematical Society, as well as the AWM Executive Committee, was consulted about how to mount such an unprecedented event. With rather little time to plan, it was decided to make this a workshop truly on the status of women. Women and men, in positions of leadership and junior people, mathematicians and people who had studied women and mathematics, were invited, from all three countries in North America. Not everyone could accept the invitation, of course, but the group of 35 people that finally assembled in the glorious Banff Centre during a beautiful early fall week was varied and dedicated. It included no fewer than six past present and future AWM presidents as well as several institute directors (some overlap there) and representatives.

We were helped by the recent publication of several books and reports on the status of women in science and mathematics. A goal quickly formed: to produce a forward-looking report that will take account of recent findings and will make specific recommendations intended to benefit the entire academic mathematical community—including women, of course. Whether we will achieve that lofty aim depends on our own diligence and hard work—but we feel we owe no less to the generosity of BIRS, which sponsored this unique event. (Details of the event, including the participant list and readings may be found on the BIRS web page. And it is worth mentioning that BIRS will continue to sponsor an event for women each year—beginning with the 2008 program, there will be an open competition for the week. Although the deadline for application for 2008 will have passed before this newsletter appears, it is worth thinking of good proposals for 2009 and onward.)

Finally, to return to the international theme: AWM members were prominent at the gathering, and AWM was mentioned frequently (particularly in connection with activities like our workshops for graduate students and new researchers), but no more so than the Canadian and Mexican women (and supportive men) who contributed to the discussion and will write the report. While we expect a scholarly outcome, what we carry away in the immediate aftermath is the pleasant memory of new friendships made and time well spent in pursuit of common goals.

MEMBERSHIP AND NEWSLETTER INFORMATION

Membership dues (Membership runs from Oct. 1 to Sept. 30)

Individual: \$55 Family (no newsletter): \$30
 Contributing: \$125 First year, retired, part-time: \$30
 Student, unemployed, developing nations: \$20
 Friend: \$1000 Benefactor: \$2500
 All foreign memberships: \$10 additional for postage
 Dues in excess of \$15 and all contributions are deductible from federal taxable income when itemizing.

Institutional Members:

Level 1: \$300
 Level 2a or 2b: \$175/\$150
 See www.awm-math.org for details on free ads, free student memberships, and ad discounts.

Affiliate Members: \$250

Institutional Sponsors:

Friend: \$1000+ Patron: \$2500+
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 See the AWM website for details.

Subscriptions and back orders

All members except family members receive a subscription to the newsletter as a privilege of membership. Libraries, women's studies centers, non-mathematics departments, etc., may purchase a subscription for \$55/year (\$65 foreign). Back orders are \$10/issue plus shipping/handling (\$5 minimum).

Payment

Payment is by check (drawn on a bank with a US branch), US money order, or international postal order. Visa and MasterCard are also accepted.

Newsletter ad information

AWM will accept advertisements for the *Newsletter* for positions available, programs in any of the mathematical sciences, professional activities and opportunities of interest to the AWM membership and other appropriate subjects. The Managing Director, in consultation with the President and the Newsletter Editor when necessary, will determine whether a proposed ad is acceptable under these guidelines. *All institutions and programs advertising in the Newsletter must be Affirmative Action/Equal Opportunity designated.* Institutional members receive discounts on ads; see the AWM website for details. For non-members, the rate is \$100 for a basic four-line ad. Additional lines are \$12 each. See the AWM website for *Newsletter* display ad rates.

Newsletter deadlines

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

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

Addresses

Send all **Newsletter** material **except ads and book review material** to Anne Leggett, Department of Mathematics and Statistics, Loyola University, 6525 N. Sheridan Road, Chicago, IL 60626; e-mail: leggett@member.ams.org; phone: 773-508-3554; fax: 773-508-2123. Send all **book review** material to Marge Bayer, Department of Mathematics, University of Kansas, 405 Snow Hall, 1460 Jayhawk Boulevard, Lawrence, KS 66045-7523; e-mail: bayer@math.ku.edu; fax: 785-864-5255. Send everything else, **including ads and address changes**, to AWM, 11240 Waples Mill Road, Suite 200, Fairfax, VA 22030; phone: 703-934-0163; fax: 703-359-7562; e-mail: awm@awm-math.org.

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Classified and job link ads may be placed at the AWM website.

Website and Online Forums

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

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

AWM DEADLINES

AWM/EWM/ICIAM Olga Taussky
 Todd Lecture: November 8, 2006

AWM SIAM Workshop: December 15, 2006

NSF-AWM Mentoring Travel Grant:
 February 1, 2007

NSF-AWM Travel Grant:
 February 1, 2007 and May 1, 2007

Sonia Kovalevsky High School Mathematics
 Days: February 4, 2007

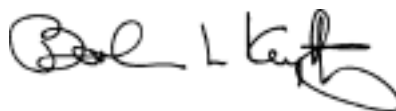
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See You in New Orleans!

AWM will hold its usual activities at the JMM in January, including the membership business meeting and the reception. See the preliminary schedule included in this issue on pages 24–27.

The panel discussion this year will be “Women Advancing to Leadership: When and How.” In my column in the last issue, I discussed the recent report “Women for Science” published by the InterAcademy Council. It makes a strong case for including women at the highest levels of scientific leadership and offers prescriptions for organizations to enlist the contributions and improve the visibility of women. The panelists will include one of the co-authors of the report and a sample of women at different career stages in mathematics; they will talk about the study and their own views on leadership.



Barbara L. Keyfitz
 Toronto, Canada
 October 1, 2006



**Call for Nominations: The ICIAM
 2007 Olga Taussky Todd Lecture**

AWM and EWM, together with the organizers of the ICIAM 2007 Congress, announce the Olga Taussky Todd Lecture, to be awarded at the ICIAM 2007 Congress in Zürich. This honor is to be conferred on a woman who has made outstanding contributions to applied mathematics and/or scientific computation. The name of this lecture pays tribute to the memory of Olga Taussky Todd, whose scientific legacy is in both theoretical and applied mathematics, and whose work exemplifies the qualities to be recognized.

A nomination packet will consist of two pages, the first a description of the work and an explanation of the why the individual is being nominated for this prize, and the second a brief CV for the nominee.

The selection process will be conducted by the Olga Taussky Todd Prize Committee, chaired by Barbara Lee Keyfitz. Nomination packets may be sent electronically to bkeyfitz@fields.utoronto.ca by **November 8, 2006**. While all nominees will be seriously considered, special consideration will be given for the first prize award in 2007 to candidates whose work is in one of the areas of Olga Taussky Todd's research: applications of number theory, linear algebra, or numerical analysis.

Letter to the Editor

In the July-August *AWM Newsletter*, President Keyfitz outlines the difficulties involved in obtaining appointments for women on key prize-awarding committees. We would like to add that even when women are appointed to important decision-making bodies, they may not be able to advance the careers of highly deserving women. As women who have served on committees, we have observed that it is quite easy for other members of the committee to deny the quality of a woman mathematician and quickly dismiss her from the discussion. A single outspoken committee member bent against women can seriously hinder the possibilities of awarding a woman an honor that isn't shared by five or six men as well. Even well-intentioned colleagues often don't realize how their unconscious small assumptions accumulate to become heavy drags on women mathematicians. This can affect both the writing and the interpretation of letters of nomination, as well as committee discussions. Even women mathematicians may fall within this group.

It is imperative that the AWM address these concerns or women will lose the gains we've made over the past 30 years. We need to demand that men and women condemn openly sexist statements without waiting for someone to be bold enough to file a lawsuit. We need everyone to watch themselves for their own subtle biases. We need to educate people about writing strong letters that will survive reading by even the most biased committee members. If committees are more likely to choose a woman when they are also choosing five men, then we need more prizes awarded to multiple recipients. We need to stop the downward spiral caused by judging mathematicians based on a lack of prestigious positions, plenary addresses, top notch publications and awards, without ever pausing to examine their research directly.

This does not even address the issues that may uniquely affect women who are parents: the publication gaps and the temporary inability to travel. There is almost no funding to help such women recover their research programs. Certainly there is no funding available from the NSF that will allow them to work part-time in research-only positions at their home institutions like many top women mathematicians did in the past. Given the societal pressure to work even with a young child, few women mathematicians today even take unpaid leaves for childcare. Instead they work fulltime

The AWM might attempt to spread the word as to which top notch jobs are truly top notch for women and which have such incipient sexism as to prevent the women there from succeeding. Sexism at times can be so pervasive that it is more of a distraction from mathematics than teaching, service and childcare combined. When the only recourse is to file a lawsuit, there is really no recourse at all.

jobs, often keeping up their teaching and service while their research is forced to the back burner. It is time to provide grants, even small ones, which will allow women to recover their research after children or to keep their research going while having young children around. It is time for universities to offer 50% pay for 50% work. It is time that committees realize that many parents with doctorates a decade ago may have been doing research for only eight of those years if not fewer.

There are also the solved two body problems which often place women at second tier jobs with higher teaching. Rather than holding the lack of prestige against the women, it should be noted that her important results have more weight for having been completed in what may have been a less than supportive environment. What would she have done at a top notch department with time granted to complete research? What could she do now if offered funding or a top notch position?

Finally the AWM might attempt to spread the word as to which top notch jobs are truly top notch for women and which have such incipient sexism as to prevent the women there from succeeding. Sexism at times can be so pervasive that it is more of a distraction from mathematics than teaching, service and childcare combined. When the only recourse is to file a lawsuit, there is really no recourse at all.

Anyone with ideas for effective action is encouraged to post them at the Effective Action for Women in Math Webforum at <http://groups.google.com/group/WomeninMath>.

Sincerely,

Stephanie Alexander
Jean Taylor
Karen Uhlenbeck

Childcare at the JMM

The American Mathematical Society and the Mathematical Association of America will again be offering childcare services for the New Orleans Joint Mathematics Meetings to registered participants. The child care will be offered through KiddieCorp Children's Program. KiddieCorp is an organization that has been providing high quality programs for children of all ages at meetings throughout the United States and Canada since 1986. Read all about them at <http://www.kiddiecorp.com/>.

The childcare services provided at the JMM are for children ages 6 months through 12 years old. Space per day will be limited and is on a space-available basis. The dates and times for the program are Friday thru Monday, January 5–8, 2006, 8:00 a.m. to 5:00 p.m. each day. It will be located at the Sheraton New Orleans Hotel. Parents are encouraged to bring snacks and beverages for their children, but items such as juice boxes, cheerios and crackers will be provided. KiddieCorp can arrange meals for children at cost plus 15%, or parents can be responsible for meals for their children.

Registration started in September. To register, go to <https://www.kiddiecorp.com/jmmkids.htm> or call KiddieCorp at (858) 455-1718 to request a form. The registration fee is \$30 per family (nonrefundable). The additional cost will be \$9 per hour per child (\$7 per hour per child for graduate students). These reduced child care rates are made possible to the meeting participant by the AMS and the MAA. If parents do not pick up their children at the time scheduled or by the end of the day (no later than 5:00 p.m.) they will be charged a late fee of \$5.00 per child for every 15 minutes thereafter.

Parents must be registered for the JMM to participate. Full payment is due at the time of registration with KiddieCorp. Deadline for registering is **December 8, 2006**. Cancellations must be made to KiddieCorp prior to December 8, 2006 for full refunds. Cancellations made after that date will be subject to a 50% cancellation fee. Once the program has begun, no refunds will be issued.

Project NExT/YMN Poster Session

Project NExT and the Young Mathematician's Network invite submissions of abstracts for a poster session to be held on Friday, January 5, 2007 from 2:15 to 4:15 p.m. (room TBA) at the Joint Mathematics Meetings in New Orleans. The poster size will be 48 inches by 36 inches; it is best to have the posters 36 inches high. Posters and materials for posting pages on the posters will be provided on-site. We expect to accept about thirty posters from different areas within the mathematical sciences.

Should you have a special requirement involving a computer hook-up, please let us know and we will check to see if it may be accommodated.

If you are interested in participating, submit copies of your abstract to: Professor Mike Axtell, Department of Mathematics & Computer Science, Wabash College, P.O. Box 352, Crawfordsville, IN 47933-0352, phone: (317) 496-7995, e-mail: axtellm@wabash.edu and Professor Kevin Charlwood, Department of Math & Statistics, Morgan Hall 275 D, Washburn University, Topeka, KS 66621, phone: (785) 670-1499, e-mail: kevin.charlwood@washburn.edu.

Our poster sessions the past ten years have been great successes. Visitors to the session each year were numerous and included many prospective employers. This session provides an excellent way to showcase one's work in a relaxed, informal environment.

The deadline for final consideration is **December 8, 2006**. Preference will be given to those who did not earn a Ph.D. prior to 2001; please include with your submission when and where you received your Ph.D., or indicate when you expect to receive it. Please submit your abstract via e-mail, not an attachment. If it includes mathematical formulas, please submit it in basic LaTeX or TeX format. Submissions will be acknowledged quickly by e-mail. Accepted abstracts will be posted at <http://www.youngmath.net/Documents/2007/Posters/> before the Joint Meetings.

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www.awm-math.org

AWM Workshop for Women Graduate Students and Recent Ph.D.'s

supported by the Office of Naval Research, the National Security Agency,
and the Association for Women in Mathematics

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

WHEN: The next summer AWM Workshop is scheduled to be held in conjunction with the Applied Dynamical Systems Meetings of the Society for Industrial and Applied Mathematics (SIAM) to be held in Snowbird, UT, from May 28 through June 1, 2007.

FORMAT: The workshop will consist of a poster session by graduate students and two or three minisymposia featuring selected recent Ph.D.'s, plus an informational minisymposium directed at starting a career. The graduate student poster sessions will include all areas of research, but each research minisymposium will have a definite focus selected from the area of applied dynamical systems or other areas of applied mathematics. AWM will offer funding for travel and two days subsistence for as many as twenty participants. Departments are urged to help graduate students and recent Ph.D.'s obtain supplementary institutional support to attend the workshop presentations and the associated meetings. All mathematicians (female and male) are invited to attend the program.

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

ELIGIBILITY: To be eligible for selection and funding, a graduate student must have begun work on her thesis problem and a recent Ph.D. must have received her degree within approximately the last five years, whether or not she currently holds a postdoctoral or other academic or non-academic position. All non-US citizens must have a current US address. All applications should include a cover letter, a summary of research work (one or two pages), a title and abstract (75 words or less) of the proposed poster or talk, and a curriculum vitae. A supporting letter of recommendation from a faculty member or research mathematician who knows their research is required for graduate student applicants and recommended but not required for recent Ph.D.'s. Additional letters of support are encouraged. All selected and funded participants are invited and strongly encouraged to attend the full AWM two-day program. Those individuals selected will be notified by the AWM Office and will need to submit a final title and abstract with name, affiliation, address, etc. to SIAM for the meeting program; AWM will provide instructions with the notification. For some advice on the application process from some of the conference organizers see the AWM Web site.

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

Workshop Selection Committee
11240 Waples Mill Road, Suite 200
Fairfax, VA 22030

Phone: 703-934-0163

E-mail: awm@awm-math.org

URL: www.awm-math.org

APPLICATION DEADLINE

Applications must be received by **December 15, 2006**. Applications via e-mail or fax will not be accepted.

Book Review

Book Review Editor: Margaret Bayer, University of Kansas, Lawrence, KS 66045-7523, bayer@math.ku.edu

Count Down: Six Kids Vie for Glory at the World's Toughest Math Competition, Steve Olson, Houghton Mifflin, Boston, 2004, ISBN 0-618-25141-3, 244pp.

Reviewer: Kathy Tomlinson, Department of Mathematics, University of Wisconsin—River Falls, WI 54022, kathy.a.tomlinson@uwrf.edu

Science writer Steve Olson is a consummate storyteller, creating a narrative filled with surprises. On a basic level, he weaves the drama of the six high school students who competed for the US team in the 2001 International Mathematical Olympiad held on the campus of George Mason University, just outside of Washington, D.C. On a deeper level, he tells the adventure and excitement of the human endeavor known as mathematics.

In a book that is clearly written for a general audience, the first surprise is Olson's approach to what it means to engage in mathematics: "Becoming an excellent problem solver demands creativity, daring and playfulness." [p. 3] These bold adjectives put us in mind of art or music, hang-gliding or mountain-climbing, soccer or word-games. For non-mathematicians, this is a promise that we will be shown mathematics in a new and exciting light. For mathematicians, it is intimation that we will find refreshing language for thinking about our work and engaging our students. Olson does not disappoint us.

This story could easily have been told by a man about men engaged in masculine pursuits. After all, the six students, their coach and the vast majority of their predecessors are male. Instead Olson incorporates the experience of women throughout his tale. We learn that it was a woman mathematician, Nura Turner, who in 1971 wrote a pivotal article that generated US interest in participating in the IMO. By way of describing the role of inspiration in mathematics, we learn about 1998 and 1999 Olympian and 2001 guide for the US IMO team, Melanie Wood. As the story unfolds, the experiences of women doing mathematics continue to be central.

The third surprise is the brilliant structure of the book. After an introduction that draws us into the world of the IMO, Olson treats us to chapter 1: *Inspiration* and chapter 2: *Direction*, in which he sets the stage for the sort of drama and analysis he will present. The bulk of the book consists of six chapters individually entitled after an attribute of mathematical problem solving: *Insight*, *Competitiveness*, *Talent*, *Creativity*, *Breadth*, and *Sense of Wonder*. Each of these six chapters describes one Olympian, one problem on the 2001 exam, one attribute of doing mathematics, and one issue in mathematical experience. Within each of the six chapters, the life of the Olympian helps us understand his approach to the problem; the problem clarifies the attribute of doing mathematics; the attribute illuminates the issue in mathematical experience; and the issue informs us about the Olympian.

For example, in chapter 7: *Creativity*, we meet Olympian David Shin. While all six Olympians are superb pianists, David takes music to another level, finding relaxation in jazz improvisation. Once we understand David as a creative musician, it is but a small leap to view his mathematics as a creative process. The 4th IMO problem involved a weighted sum of permutations and the concept of factorial. To explain what a permutation is, Olson creates a parallel between rearrangements of n objects and rearrangements for musical improvisations. To explain the factorial concept, Olson describes psychology professor Dean Keith Simonton's research on creativity. Simonton has identified three steps in the creative process: juxtapose ideas, select novel ideas and spread the ideas. Using concrete examples, Olson explains that the number of ideas generated by juxtaposing n ideas is n factorial. He invites the reader into mathematics through a clever explanation of creativity itself.

To better understand the creative process, we learn about a classic creativity study by psychologist Norman Maier in the 1930s. A puzzle in which two strings hanging from a ceiling must be tied together is presented to a subject along with various objects, only one of which is useful, a pair of pliers. The puzzle can be solved only by attaching the pliers to one end of the string and starting a pendulum motion. It is informative to my teaching to know that women did better if the pliers were replaced by scissors. Am I always being careful to offer both the proverbial pliers and the scissors? It also aids our understanding of creativity to

know that subjects solved the puzzle more easily if one of the strings was already started in a pendulum motion. Creative epiphany is the product of the juxtaposition of ideas.

The most powerful point Olson makes in chapter 4 surrounds the issue of the effect of diversity on creativity. Simonton's third step in the creative process—the replication of ideas—is supported by political openness and pluralism. “Studies have shown that creative people often are familiar with more than one culture or language and that they tend to value complexity, diversity and different viewpoints.” [p. 133] We are encouraged to think about bursts of creativity as more likely to occur during historical periods of greater diversity. The discussion of the interplay between diversity and creativity is very helpful in understanding one of the key reasons for making efforts to increase women's participation in mathematics. Mathematics needs the creativity that is only brought about by having the diversity of ideas that women can bring. (Other reasons include fairness concerns, sheer numbers to meet the needs of modern society, and the reputation of mathematics as objective.)

How did David Shin come up with just the right combination of ideas to solve the 4th problem? This question leads us into a discussion of David's immigration from Korea. There were four recent immigrants on the 2001 US IMO team, from Korea, Vietnam (via Australia), China and Israel. (Oaz Nir was actually born in the US, but his parents emigrated from Israel just a few years before he was born.) Olson provides a thorough and thoughtful analysis of the Asian immigrant experience. He uses the research of psychologist Harold Stevenson on elementary-aged students from three nations to dissolve stereotypes about Asian genetics or even Asian cultural differences, instead focusing on the immigrant experience. Stevenson's research indicates that the key to the success of the three Asian immigrants and the one Israeli immigrant was related both to diversity—speaking more than one language and experiencing multiple cultures—and to the fact that new immigrants must work hard to succeed.

Whether it is the personality of David Shin, the mathematics itself, the attribute of creativity, or the issue of diversity in mathematics that most interests you, you gain entrée into all four topics. So what was the 4th problem and how did David's creative process help him solve it? You'll have to read the book to find out.

It is pure pleasure to read *Count Down*. The dramatic storytelling, excellent mathematical exposition, careful attention to women in mathematics, and thoughtful analysis of important issues combine to make for a wonderful book. I highly recommend it to mathematicians and non-mathematicians alike.

The discussion of Alfie Kohn's theory about competition in chapter 4 is very interesting. A vocal activist against competition in our culture, Kohn outlines four arguments: competition is not inherent to our existence; it fails to improve performance; it is not fun; and it does not build character. Kohn's line of reasoning is particularly relevant to Olson's point that math competitions “can be especially distasteful to girls.” Olson is clearly trying to provide balance when he labels Kohn's arguments as “obviously exaggerated.” However, he has gone too far in defense of competition. Olson attempts to make a case that Olympian Ian Le's solution of the 2nd problem was motivated by competitiveness. While Ian worked diligently to become an Olympiad level problem solver, his personality is decidedly non-competitive. Olson's argument falls apart as we discover that the real source of Ian's solution was the insight and creativity to use Jensen's inequality in an ingenious way.

The breadth of interest among mathematics Olympians is astonishing: music, literature, politics, writing, sports. In chapter 8: *Breadth*, we find a stimulating discussion of the correlation between childhood precocity and adult success. For Olson life success is not prominence but instead “good jobs, strong families, broad interests and comfortable lives.” [p. 160] While this seems obvious, an important aspect of what it means to be successful is missing: solid connection to community. This tends to be especially important for women. It is in the context of community that we raise our children, develop our careers and nurture our interests. If we are not actively involved in our communities our lives lack balance and our other achievements suffer.

It is pure pleasure to read *Count Down*. The dramatic storytelling, excellent mathematical exposition, careful attention to women in mathematics, and thoughtful analysis of important issues combine to make for a wonderful book. I highly recommend it to mathematicians and non-mathematicians alike.

AWM at MathFest 2006

Jennifer Quinn, AWM Executive Director

MathFest 2006 was held August 10–12 in Knoxville, Tennessee. Despite the summer heat and humidity, southern hospitality strengthened this intimate celebration of mathematics and mathematicians.

A hallmark of MathFest is that invited lectures can be appreciated by a broad spectrum of the mathematical community—from undergraduate students to teacher-scholars to research faculty. The meeting was jump started Thursday morning by **Dorothy Buck**, Imperial College London, and her invited address *The Circle (and Knot and Link) of Life: How Topology Untangles Knotty DNA Questions*. Dr. Buck considered the structure of DNA's central axis and how the topology of the axis affects local and global biological processes.

Friday evening AWM and MAA co-sponsored the reception following **Donald Saari's** PME J. Sutherland Frame Lecture "Ellipses and Circles? To Understand Voting Problems?!" The reception was a great chance to network and catch up with old friends. **Suzanne Lenhart**, University of Tennessee, and I circulated to update members on new AWM opportunities like the Ruth I. Michler Memorial Prize and the Teacher Partnership.

The true AWM highlight of the meeting was the AWM/MAA Etta Z. Falconer Lecture by **Trachette Jackson**, University of Michigan, titled "Cancer Modeling: From the Classical to the Contemporary." Dr. Jackson works with



Suzanne Lenhart, University of Tennessee;
Mary Shepard, Northwestern Missouri State University;
Margaret Morrow, SUNY Plattsburgh

experimental scientists in biology and medicine, creating multiscale computational models to investigate the growth of cancer tumors. Avascular tumors, that is tumors with no blood supply, show nutrient-limited growth. If a tumor acquires a blood supply by inducing neighboring blood vessels to grow towards it (a process called angiogenesis), growth may proceed unchecked. The cellular and molecular interactions associated with tumor initiation, progression, and treatment are complex, but it appears that cutting off the blood supply may be more beneficial than directly targeting the tumor. This dynamic talk showed the power of interdisciplinary research, combining mathematical modeling, numerical simulation, and laboratory investigation.

MathFest celebrates excellence in exposition and teaching by presenting awards to writers in MAA journals and to early career teaching faculty. Some highlights include the Trevor Evan Award to **Ronald Barnes** and **Linda Becerra** for "The Evolution of Mathematical Certainty," appearing in *Math Horizons*, September 2005 and the Lester R. Ford Award to **Ibtesam Bajunaid**, **Joel M. Cohen**, **Flavia Colonna**, and **David Singman** for "Function Series, Catalan Numbers, and Random Walks on Trees" in *American Mathematical Monthly*, November 2005. Finally congratulations to **Lesley Ward**, Associate Professor at Harvey Mudd College, Senior Lecturer at University of South Australia, and member of AWM's long range planning committee, for being awarded a Henry L. Alder Award for Distinguished Teaching by a Beginning College or University Mathematics Faculty Member.



Trachette Jackson and Suzanne Lenhart
before the Falconer Lecture



Jennifer Halfpap, University of Montana; Kathy Temple, Central Washington University; Terry Jo Leiterman, St. Norbert's College; Gizam Karaali, Pomona College



Hortensia Soto-Johnson, University of Northern Colorado; Rachel Roe-Dale, Skidmore; Erin McNicholas, Willamette University; Art Benjamin, Harvey Mudd College; Karen Briggs, Clayton State University

Mathematics Education in the 21st Century

The ninth International Conference of The Mathematics Education into the 21st Century Project, "Mathematics Education In A Global Community," will be held September 7–12, 2007, at the University of North Carolina Charlotte, Hilton Charlotte University Place Hotel.

The Mathematics Education into the 21st Century Project has just completed its eighth successful international conference in Malaysia, following conferences in Egypt, Jordan, Poland, Australia, Sicily, Czech Republic and Poland. The project was founded in 1986 and is dedicated to the planning, writing and disseminating of innovative ideas and materials in mathematics and statistics education. All the conferences have had a strong working group dealing with equity in relation to gender issues and social and racial inequality.

The Chairman of the Local Organizing Committee is Associate Professor David Pugalee. Plenary speakers will include Professor Azlan Zanzali and Douglas Butler (Autograph). The conference will open with a Welcome Reception on Friday, September 7 and conclude after lunch on Septem-

The Mathematics Education in the 21st Century Project was founded in 1986 and is dedicated to the planning, writing and disseminating of innovative ideas and materials in mathematics and statistics education.

ber 12. Papers are invited on all innovative aspects of mathematics education. There will be an additional social program for accompanying persons. Our conferences are renowned for their friendly and productive working atmosphere. They are attended by innovative teachers and mathematics educators from all over the world, for example, 25 countries were represented at the last conference.

The major goals of the conference are a) to share innovative, unique and creative solutions for enacting reform in the areas of: educational research in teaching and learning, educational technology, curriculum development, mathematics teacher preparation and development, school organization and policy, classroom practices and issues of equity and ethnomathematics; b) to document and widely disseminate ideas presented at the conference;

and c) to initiate new and creative solutions to endemic problems. The Program Committee for the conference invites mathematics teachers, university faculty members and national and regional coordinators and administrators from all countries to submit proposals for inclusion in the conference program.

Proposals are welcome that deal with all aspects of innovation in mathematics, statistics and computer education, especially those helping to make mathematics more alive, more realistic and more accessible in the future. Possible topics include problem solving, use of

technology, new ways of assessment, ways of dealing with cultural differences, overcoming gender and social barriers, improving the curriculum, teacher preparation and ongoing development, policy initiatives, school organization, classroom practices, using statistics in everyday life, effectively utilizing new paradigms in teaching and learning, rich learning tasks, applications of mathematics and modeling in the real world, and computer graphics.

For further details about the conference, please e-mail arogerson@inetia.pl or visit <http://math.unipa.it/~grim/convegni.htm>.

Sonia Kovalevsky High School Mathematics Days

Through grants from Elizabeth City State University (ECSU) and the National Security Agency (NSA), the Association for Women in Mathematics will 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.

An additional selection cycle will be held in February 2007 for Spring 2007 using funds remaining after the August 2006 selection cycle. AWM anticipates awarding up to six additional grants ranging on average from \$1500 to \$2200 each (\$3000 maximum per school) to universities and colleges. Historically Black Colleges and Universities are particularly encouraged to apply. Programs targeted toward inner city or rural high schools are especially welcome.

Applications, not to exceed six pages, should include: a) a cover letter including the proposed date of the SK Day, expected number of attendees (with breakdown of ethnic background, if known), grade level the program is aimed toward (e.g., 9th and 10th grade only), total amount requested, and organizer(s) contact information; b) plans for activities, including specific speakers to the extent known; c) qualifications of the person(s) to be in charge; d) plans for recruitment, including the securing of diversity among participants; e) detailed budget (i.e., food, room rental, advertising, copying, supplies, student giveaways, etc. Honoraria for speakers should be reasonable and should not, in total, exceed 20% of the overall budget. Stipends and personnel costs are not permitted for organizers. The grant does not permit reimbursement for indirect costs or fringe benefits. Please itemize direct costs in budget.); f) local resources in support of the project, if any; and g) tentative follow-up and evaluation plans.

The decision on funding will be made in late February for high school days to be held in Spring 2007. If selected, a report of the event along with receipts (originals or copies) for reimbursement must be submitted to AWM within 30 days of the event or by June 1, 2007, whichever comes first. Reimbursements will be made in one disbursement; no funds will be disbursed prior to the event date.

Send *five* complete copies of the application materials to: Sonia Kovalevsky Days Selection Committee, Association for Women in Mathematics, 11240 Waples Mill Road, Suite 200, Fairfax, VA 22030. For further information: phone 703-934-0163, e-mail awm@awm-math.org, or visit www.awm-math.org. Applications must be received by **February 4, 2007**; applications via e-mail or fax will not be accepted.

AAAS Meeting in San Francisco

Edward Aboufadel, Secretary, Section A, AAAS
 aboufadel@gvsu.edu

The 2007 Annual Meeting of the American Association for the Advancement of Science will be held February 15–19 in San Francisco, CA. This year's program features many outstanding expository talks by prominent mathematicians. The theme of the meeting is "Science and Technology for Sustainable Well-Being," and many of the symposia sponsored by Section A (Mathematics) are interdisciplinary sessions that fit this theme.

The eight symposia sponsored by Section A are:

- The Science and Modeling of Hurricanes (organized by Clint Dawson)
- New Vistas in the Mathematics of Ecology and Evolution (organized by Simon Levin)
- Prime Numbers: New Developments on Ancient Problems (organized by Dan Goldston)
- New Mathematical Methods in the Visual Arts (organized by Dan Rockmore)
- Are We a Democracy? Vote Counting in the United States (organized by Stephanie Singer)
- How Should Elementary Mathematics Be Taught? (organized by Cathy Kessel)
- Controversies in Forest Fire Suppression and Management (organized by John Braun)
- Blockbuster Science: Math & Science Behind Movies & Entertainment (organized by Tony Chan)

Other symposia that will be of interest to the mathematical community include:

Decision-Making Under Uncertainty: The Challenge of Sustainable Well-Being
 Climate Change: Treatment of Uncertainty in Assessment and Decision-Making
 Numbers and Nerves: Affect and Meaning in Risk Information
 The Digital Promise: Using Advanced Learning Technologies To Revolutionize Education

Mathematics and America's Future: A Call to Action
 Examining TIMSS Teaching and Learning Through Videos and Assessments

New Approaches to the Development of the U.S. Computing Work Force

Internet Searching in 2017

The above symposia are only a few of the 200 or so AAAS program offerings in the physical, life, social, and biological sciences. For further details about the 2007 AAAS program, see the October 20, 2006 issue of *Science*. (See also www.aaasmeeting.org under "Program and Events.")

AAAS annual meetings are the showcases of American science, and they encourage participation by mathematicians and mathematics educators. (AAAS acknowledges the generous contributions of AMS for travel support and SIAM for support of media awareness.) The AAAS Program Committee is genuinely interested in offering symposia on pure and applied mathematical topics of current interest, and in previous years there have been symposia on subjects such as the changing nature of mathematical proof, models for how insects fly, and mathematical oncology.

The 2008 meeting will be February 14–18, 2008 in Boston. The Steering Committee for Section A seeks organizers and speakers who can present substantial new material in an accessible manner to a large scientific audience. All are invited to attend the Section A Committee business meeting in San Francisco on Friday, February 16, 2007, at 7:45 p.m., where we will brainstorm ideas for symposia. In addition, I invite you to send me, and encourage your colleagues to send me, proposals for future AAAS annual meetings.

The members of the Steering Committee for Section A from February 2006 to February 2007 are:

Chair: Jack Cowan (University of Chicago)

Chair-Elect: Carl Pomerance (Dartmouth College)

Retiring Chair: Barbara Lee Keyfitz (Fields Institute and University of Houston)

Secretary: Edward Aboufadel (Grand Valley State University)

Members at Large:

Tamar Schlick (New York University)

Walter Craig (McMaster University)

Mary Beth Ruskai (Tufts University)

David Isaacson (Rensselaer Polytechnic Institute)

New Programs at Smith

The Smith College Department of Mathematics and Statistics will be launching two unusual and ambitious programs for women next fall. They are supported by a substantial grant from the National Science Foundation. Smith is hoping AWM members can help them locate interested students.

The first is a post-baccalaureate program in mathematics. It's for women who discovered their love for mathematics too late to major in the subject or who need additional coursework before applying to graduate school. It's a chance for women with BA's to return to college and spend a year taking undergraduate mathematics, their expenses covered by Smith and by the NSF. It's not known how many are in this situation, but most of us have met women who realize now they should have majored in math. This is for them.

The second is a junior year program specifically for

women. Majors from other schools will spend their junior year at Smith taking mathematics courses. They will benefit from a department centered on women, a rich curriculum (18 different upper-level courses this year), and the small classes of a liberal arts college. Smith and the NSF will provide need-based financial aid for participants.

The two programs will form the core of the Center for Women in Mathematics at Smith. In both, students will have the opportunity, as Smith undergraduates have, of working with faculty on research projects. They will also benefit from the strong network of Smith alumnae mathematicians. Ultimately, more than a dozen students a year will be added to the approximately 40 Smith mathematics majors.

If you know of women who might be interested in either program, tell them to visit the website, www.math.smith.edu/center/, or e-mail Ruth Haas, the chair of the department: rhaas@smith.edu.

Women in Science Networks

press release

University of Illinois at Chicago researchers have received a \$1.2 million National Science Foundation grant to study how social and professional networks affect the careers of women scientists and engineers. Julia Melkers and Eric Welch, UIC associate professors of public administration, and assistant professor Sharon Mastracci will use the three-year grant to focus on such networks in academia and government.

Melkers said anecdotal evidence suggests that women scientists and engineers advance further if they network strategically early in their careers, but the researchers want to understand why.

"The networks that offer resources and direct participation are opaque and complex," she said. "We seek to open the 'black box' of how networks operate."

Although women account for more than half of the professionals in biological and social sciences, their numbers are disproportionately low in other scientific fields, the researchers said.

Women account for only 21 percent of engineering faculty members in the United States, according to NSF statistics. The growing number of women who hold doctoral degrees in science and engineering hold fewer academic positions than men, particularly at higher ranks, and are more likely than men to work part-time or not at all.

The study will address:

- The effect of networking on women's productivity, faculty rank, organizational position, salaries and job satisfaction.
- Characteristics of networks in specific disciplines and their influence on the professional advancement of women.
- Factors that lead scientists and engineers, particularly women scientists, to actively participate in formal and informal networks.
- Possible differences between women's and men's participation in science networks.

The researchers will map the characteristics of networks; correlate the characteristics with productivity, rank, position, salary and job satisfaction; and do a comparison with the same data for men.

Summer Mathematics Program for Women

The mathematics department of Carleton College is pleased to announce that NSF has renewed the funding for our month-long summer mathematics program for eighteen mathematically-talented first- and second-year undergraduate women. By introducing them to new and exciting areas of mathematics that they would not see in a standard undergraduate curriculum, and by honing their skills in writing, speaking and doing mathematics, the program leaders endeavor to excite these women on to advanced degrees in the mathematical sciences, and, more importantly, to increase each woman's confidence in her own abilities and connect them all into a supportive network to carry them through their undergraduate and graduate education.

At the heart of the program are two demanding, intense courses under the supervision of female faculty who are active in research and reknowned for their teaching. In past summers we have had the following instructors: Judy Kennedy (Topological Dynamical Systems), Laura Chihara (Algebraic Coding Theory), Margie Hale (Fuzzy Logic), Rhonda Hatcher (Game Theory), Katherine Crowley (Morse Theory) and others. This summer's courses will be offered by Erica Flapan of Pomona College (Knots and Chemistry) and Karen Brucks of the University of Wisconsin-Milwaukee (Low-Dimensional Dynamical Systems). Besides the coursework, participants take part in a variety of mathematical events: panel discussions on graduate schools and careers, colloquia on a variety of topics, recreational problem-solving, and visits from at least one REU organizer and the organizer of the Budapest Semester. The mathematical part of the program is balanced with weekend events including canoeing, hiking, picnics, and tubing. Past participants (through program evaluations and the list server set up for their correspondence) report increased facility with mathematics, bolstered self-confidence, and new or renewed excitement toward mathematics.

If you have first- or second-year women students whom you think would benefit from a demanding, invigorating month-long exposure to mathematics next summer (June 17–July 15), please refer them to our web page at www.math.carleton.edu/smp or have them contact Deanna Haunsperger at Department of Mathematics, Carleton College, Northfield, MN 55057 (dhaunspe@carleton.edu). Application deadline is **February 23, 2007**.

Nominations for National Medal of Science

The nomination of colleagues for awards is one of the most important and gratifying aspects of participating in the scientific community. Help celebrate the contributions of your colleagues by submitting a nomination for The National Medal of Science.

The National Medal of Science was established in 1959 as a Presidential Award to be given to individuals “deserving of special recognition by reason of their outstanding contributions to knowledge in the physical, biological, mathematical, or engineering sciences.” In 1980 Congress expanded this recognition to include the social and behavioral sciences. The National Medal of Science is the highest honor the President bestows on scientists. A committee of 12 scientists and engineers is appointed by the president to evaluate the nominees for the award. Since its establishment, the National Medal of Science has been awarded to 425 distinguished scientists and engineers whose careers spanned decades of research and development.

Complete nominations must be received via FastLane by **December 29, 2006**. If you have any questions, please contact the Program Manager for the National Medal of Science at nms@nsf.gov or 703-292-8040. For more information, please visit <http://www.nsf.gov/od/nms/medal.jsp>.

Happy 100th Birthday!

We congratulate Emma Trotskaya Lehmer on a long and fruitful life! She welcomes cards and letters (see the CML for her address). She was one of the women profiled in Cal Moore's recent article, “Women Mathematicians at Berkeley—The Early Years” [July–August 2006 *AWM Newsletter*, pp. 16–25]. See also http://www-history.mcs.st-and.ac.uk/Biographies/Lehmer_Emma.html.



Nebraska Conference

The Ninth Annual Nebraska Conference for Undergraduate Women in Mathematics will be held February 9–11, 2007, at the University of Nebraska–Lincoln. This conference will bring together outstanding participants from across the country and give those who have already done research an opportunity to present their results. There will be plenary talks by Ruth Charney (Brandeis University) and Barbara Lee Keyfitz (Fields Institute and the University of Houston) and panel discussions on graduate programs and careers in mathematics. For more information, see <http://www.math.unl.edu/~ncuwm/>. Registration is online with a **January 19, 2007** deadline; early registration is encouraged.

Due to the generous support of the National Science Foundation and the National Security Agency, the conference is able to cover local expenses (lodging and most meals) for

all undergraduate women participants. We also have limited funds to help cover participants' travel costs, when participants' home institutions are not able to fully cover their costs.

Not only does the conference offer a wonderful mathematical program, it also offers young women the opportunity to meet other women, in various stages of their careers, who share their interest in mathematics. Last year, close to two hundred undergraduates attended the conference and roughly 50 presented their research. Past participants have been very enthusiastic about their conference experience. One participant said, "I wish I'd known about this program two years ago—I needed the confidence even more then. I will spread the word about this program to all I know." Another said "The conference has been a pivotal piece of my undergraduate math career and a great forum to learn about other opportunities out there and meet my future female peers in mathematics." More than one participant has said that the conference was "one of the best experiences of my undergraduate career."

NSF-AWM Mentoring Travel Grants for Women

The objective of the NSF-AWM Mentoring Travel Grants is to help junior women to develop a long-term working and mentoring relationship with a senior mathematician. This relationship should help the junior mathematician to establish her research program and eventually receive tenure. AWM expects to award up to seven grants, in amounts up to \$5000 each. Each grant will fund travel, accommodations, and other required expenses for an untenured woman mathematician to travel to an institute or a department to do research with a specified individual for one month. Awardees may request to use any unexpended funds for further travel to work with the same individual during the following year. In such cases, a formal request must be submitted by the following February 1 to the selection committee, or the funds will be released for reallocation. (Applicants for mentoring travel grants may in exceptional cases receive two such grants throughout their careers, possibly in successive years; the second such grant would require a new proposal and would go through the usual competition.) For foreign travel, US air carriers must be used (exceptions only per federal grant regulations; prior AWM approval required).

Eligibility. Applicants must be women holding a doctorate or equivalent experience and with a work address in the US (or home address if unemployed). The applicant's research may be in any field that is supported by the Division of Mathematical Sciences of the National Science Foundation. (See <http://www.nsf.gov/od/lpa/news/publicat/nsf03009/mps/dms.htm#1> for the list of supported areas.)

Applications. Each applicant should submit *five copies* of each of the following: 1) the AWM Mentoring Travel Grant Form; 2) a cover letter (if a prior AWM-NSF mentor grant has been awarded, indicate so); 3) a curriculum vita; 4) a research proposal, approximately five pages in length, which specifies why the proposed travel would be particularly beneficial; 5) a supporting letter from the proposed mentor (who must indicate his/her availability at the proposed travel time), together with the curriculum vita of the proposed mentor; 6) a proposed budget; and 7) information about other sources of funding available to the applicant. A final report will be required from each awardee. All awards will be determined on a competitive basis by a selection panel consisting of distinguished mathematicians appointed by the AWM. Send all application materials to: Mentoring Travel Grant Selection Committee, AWM, 11240 Waples Mill Road, Suite 200, Fairfax, VA 22030. For further information: phone 703-934-0163, e-mail awm@awm-math.org, or visit www.awm-math.org. Applications via e-mail or fax will not be accepted. The deadline for receipt of applications is **February 1, 2007**.

ADVANCE Project

A University of Michigan project to bridge the gender gap in science and engineering has been so successful that officials have decided to make it permanent, with funding commitments approved through at least 2011.

The number of women hired annually for science and engineering faculty positions has increased three-fold since the National Science Foundation first supported U-M's ADVANCE program as a five-year project in 2001, aimed at improving recruitment and retention of women faculty in science and engineering. The University's commitment to extend the program of "institutional transformation" guarantees the effort will be at least a 10-year mission.

In the years before ADVANCE, just 14 percent of tenure-track hires in science and engineering went to women. Now that number is 34 percent.

"We were all inspired," a National Science Foundation site evaluation team concluded after reviewing U-M's ADVANCE efforts and dubbing Michigan a national leader. "There is enthusiasm among most of those we talked to, and belief that real change has transpired and can be sustained. We commend the University of Michigan for the resources, energy, commitment and imagination it has already dedicated to this transformation."

U-M President Mary Sue Coleman and interim Provost Edward Gramlich announced that a number of the functions and activities developed through the NSF-supported ADVANCE will be integrated into an ongoing institutional structure when the NSF funding ends in December 2006.

"Michigan was the first large American university to admit women in 1869, and ADVANCE continues to blaze new paths toward a more diverse university," Coleman said. "Its mission will continue to focus on using social scientific theories and evidence about both organizational and individual processes to improve our institutional capacity to recruit, retain and advance women scientists and engineers."

The new structure for U-M ADVANCE is designed "to provide help for departments in the self-study of their climate, help with the continuous training and learning for all aspects of [faculty] recruiting, promotion and retention, and be a resource to other programs."

Lotte Bailyn, management professor at MIT's Sloan School of Management and co-director of the MIT Workplace Center, headed the NSF site team that visited Michigan, and recommended the University institutionalize its efforts after a fall 2004 visit.

The U-M ADVANCE office will report directly to the provost and will be housed in U-M's Institute for Research on Women and Gender. The program also will increasingly broaden its mission to address comparable goals for faculty in all disciplines, other underrepresented groups, and other constituencies such as graduate students and post-doctoral fellows.

"We're committing further resources to this project because we see good evidence that we're making real progress toward important institutional goals," Gramlich said.

Besides raising the number of women hired for faculty positions, nine women scientists and engineers have been appointed to leadership positions and a January 2005 campus survey found an improved work environment for women science and engineering faculty.

Internal resources will partially replace the combination of external and internal funding that has supported the first five years of ADVANCE's activities. Internal support of \$800,000 per year has been committed through June 30, 2011. The planned funding includes support from U-M's College of Literature, Science, and the Arts; Medical School; College of Engineering; and the STRIDE committee (a group of senior science and engineering faculty who lead workshops and provide departments with information and advice about recruitment). The units will share responsibility for the salary of the faculty director.

The overall funding level is designed to ensure three elements: leadership, core staff and support for campuswide STRIDE committees.

Other activities will be planned and undertaken by the project in consultation with the Steering Committee, composed of the deans of LSA, the medical school and engineering, and the faculty leadership of the project—currently Abigail Stewart, project director of ADVANCE and professor of psychology and women's studies, and Pamela Raymond, professor of molecular, cellular and developmental biology.

By January 2007, they will appoint an expanded advisory committee, drawing on faculty across the disciplines and from a wide range of schools and colleges.

During the period following the NSF funding, the leadership of the project will select elements from among the current activities of the U-M ADVANCE project to continue, to modify or expand, and to drop. In addition, it will identify new projects and activities.

It will also take advantage of opportunities to seek external funding of projects within its mission.

“One important benefit of a secure infrastructure is that it can support applications for particular projects, and provides strong evidence of institutional commitment to the aims of the ADVANCE program,” Stewart said.

For the full NSF review of U-M’s ADVANCE efforts, in PDF format, visit: <http://sitemaker.umich.edu/advance/files/sitevisit.pdf>. For more on ADVANCE, visit: <http://sitemaker.umich.edu/advance>.

2005–2006 Sponsors and Institutional Members

We would like to thank the organizations that were sponsors and institutional members of AWM for the past membership year. If your department is not on this list, please encourage it to join for 2006–2007. And please renew your individual membership if you have not already done so! Now that the database is in better shape, we hope to thank individual members who join at the contributor level and/or make contributions beyond their dues next year as well.

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 Connecticut College, New London
 Cornell University, Ithaca, NY
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 San Diego State University, San Diego, CA
 San Francisco State University, San Francisco, CA
 Santa Clara University, Santa Clara, CA
 Seattle University, Seattle, WA
 Shawnee State University, Portsmouth, OH
 Skidmore College, Saratoga Springs, NY
 Slippery Rock University, Slippery Rock, PA
 Smith College, Northampton, MA
 Southeast Missouri State University, Cape Girardeau

Southern Illinois University, Carbondale
 Southern Methodist University, Dallas, TX
 St. Cloud State University, St. Cloud, MN
 St. John's University, Queens, NY
 St. Olaf College, Northfield, MN
 Stanford University, Stanford, CA
 SUNY at Albany
 SUNY at Buffalo
 SUNY at Stony Brook
 SUNY at Potsdam
 Swarthmore College, Swarthmore, PA
 Texas A & M University, College Station
 Texas Tech University, Lubbock
 The College of William and Mary, Williamsburg, VA
 The University of Chicago, Chicago, IL
 Trinity College, Hartford, CT
 Truman State University, Kirksville, MO
 Tufts University, Medford, MA
 Tulane University, New Orleans, LA
 United States Naval Academy, Annapolis, MD
 University Library of Lower Saxony, Göttingen
 University of Alaska, Anchorage
 University of Arizona, Tucson
 University of California, Davis
 University of California, Irvine
 University of California, Los Angeles
 University of California, Riverside
 University of California, San Diego
 University of California, Santa Barbara
 University of Cincinnati, Cincinnati, OH
 University of Colorado, Boulder
 University of Connecticut, Storrs
 University of Dayton, Dayton, OH
 University of Delaware, Newark
 University of Georgia, Athens
 University of Hawaii, Manoa, Honolulu
 University of Houston, Houston, TX
 University of Illinois, Chicago
 University of Illinois, Urbana-Champaign
 University of Iowa, Iowa City
 University of Kansas, Lawrence
 University of Kentucky, Lexington
 University of Maryland, College Park
 University of Massachusetts, Lowell
 University of Michigan, Dearborn
 University of Minnesota-Duluth
 University of Missouri, Columbia
 University of Missouri, Rolla
 University of Montana, Missoula
 University of Nebraska at Omaha
 University of Nebraska, Lincoln
 University of New Hampshire, Durham
 University of North Carolina, Chapel Hill
 University of North Texas, Denton
 University of Northern British Columbia, Prince George
 University of Northern Iowa, Cedar Falls
 University of Notre Dame, Notre Dame, IN
 University of Oklahoma, Norman
 University of Oregon, Eugene
 University of Pennsylvania, Philadelphia
 University of Pittsburgh, Pittsburgh, PA
 University of Puget Sound, Tacoma, WA
 University of Redlands, Redlands, CA
 University of Rochester, Rochester, NY
 University of San Diego, San Diego, CA
 University of Saskatchewan, Saskatoon
 University of South Carolina, Columbia
 University of Southern California, Los Angeles
 University of Tennessee, Knoxville
 University of Tennessee, Chattanooga
 University of Texas, Austin
 University of Utah, Salt Lake City
 University of Vermont, Burlington
 University of Washington, Seattle
 University of Waterloo, Waterloo, Ontario
 University of Wisconsin, Madison
 Vanderbilt University, Nashville, TN
 Villanova University, Villanova, PA
 Wake Forest University, Winston-Salem, NC
 Washington State University, Pullman
 Wayne State University, Detroit, MI
 Wellesley College, Wellesley, MA
 Wesleyan University, Middletown, CT
 Western Illinois University, Macomb
 Western Washington University, Bellingham
 Westminster College, New Wilmington, PA
 William Paterson University, Wayne, NJ
 Williams College, Williamstown, MA
 Wright State University, Dayton, OH
 Yale University, New Haven, CT
 York University, North York, Ontario

Honors and Awards

Congratulations to all those listed below for their meritorious achievements.

The winners of the ICIAM Pioneer Prize were announced in September. It was awarded jointly to **Ingrid Daubechies** (Princeton University, USA) for her pioneering work in applied mathematics and applications which has found widespread use in image processing and time frequency analysis, and **Heinz Engl** (Johannes Kepler Universität Linz, Austria and Austrian Academy of Sciences), for his work on the applications of theoretical work to the solution of a wide range of industrial problems; for his promotion worldwide of industrial/ applied mathematics problem solving; for his initiatives in the Austrian mathematical community; and for the founding of the Radon Institute for Computational and Applied Mathematics. The prize will be awarded at the opening ceremony of the International Congress for Industrial and Applied Mathematics to be held in Zürich in July 2007.

The Pioneer Prize was established for pioneering work introducing applied mathematical methods and scientific computing techniques to an industrial problem area or a new scientific field of applications. The prize commemorates the spirit and impact of the American pioneers. It was created on the initiative of ICIAM member society the Society for Industrial and Applied Mathematics (SIAM) and was first awarded in 1999. The Pioneer Prize is presently funded by SIAM.

The ICIAM/SIAM Pioneer Prize is awarded to Ingrid Daubechies, Princeton University, for her pioneering work in applied mathematics and applications. Her work is a permanent contribution to mathematics, science and engineering and has found widespread use in image processing and time frequency analysis.

Daubechies' best known achievement is her construction of compactly supported wavelets in the late 1980s. Since that time she has advanced the development of biorthogonal wavelet bases. These bases are currently the most commonly used bases for data compression. Daubechies name is widely associated with the biorthogonal CDF wavelet. Wavelets from this family are currently used in JPEG 2000 for both lossless and lossy compression. Her

continuing wavelet research also resulted in ground-breaking work, including the discovery of Wilson bases. This discovery led to the existence of cosine packet libraries of orthonormal bases and Gaussian bases. These are now standard tools in time frequency analysis and numerical solutions of partial differential equations.

The ICIAM/SIAM Pioneer Prize is awarded to Heinz Engl, Johannes Kepler Universität Linz, Austria and Austrian Academy of Sciences, for his work on the applications of theoretical work in inverse problems to the solution of a wide range of industrial problems; for his promotion worldwide of industrial/applied mathematics problem solving; for his initiative to include very active applied mathematics components in the Austrian Mathematical Community; and for the founding of the Austrian Academy of Sciences sponsored RICAM, the Radon Institute for Computational and Applied Mathematics. Professor Engl's vigorous activity enables and promises many exciting new opportunities for applied mathematics and industrial problem solving.

Erica Voolich was recently inducted into the Massachusetts Mathematics Educators Hall of Fame by the Association of Teachers of Mathematics in Massachusetts. The awards are made for outstanding contributions to the advancement of mathematics education. Voolich's citation reads:

Erica, a grade 7 and 8 mathematics teacher at the Solomon Schechter Day School in Newton, has been involved in many aspects of teaching and learning for over 30 years and is the quintessential mathematics educator. Her work habits and experience span a broad spectrum of mathematics education. Her experience in mathematics education includes teaching at a variety of levels from elementary to college. Erica has been a prolific author of books and articles for a variety of professional companies and organizations. Using the funds obtained from being a Presidential Awardee, she developed the Somerville Mathematics Fund. As president of this grass roots organization, she has raised scholarship money for students who wish to pursue a career in mathematics and/or science.

Agata Smoktunowicz of the University of Edinburgh received a 2006 Whitehead Prize from the London Mathematical Society for her contributions to non-commutative algebra.

Éva Tardos, Cornell University, received the George B. Dantzig Prize for her contributions to mathematical programming at the SIAM annual meeting in July. The prize is awarded jointly by SIAM and the Mathematical Programming Society.

Christine E. Heitsch, University of Wisconsin, received a 2005 Career Award at the Scientific Interface from the Burroughs Welcome Fund. Her research project involved a

combinatorial and computational approach to deciphering the biological information encoded by single-stranded nucleotide sequences.

Sarah Witherspoon, Texas A&M, was a Humboldt Research Fellow for the 2005–2006 academic year at Ludwig Maximilians-Universität München. She studies representations and cohomology of various types of rings, such as group and group-graded rings, quantum groups, and Hopf algebras.

In January 2005, Girton College, Cambridge, England bestowed on **John Todd**, emeritus, Cal Tech, the honorary title of Barbara Bodichon Foundation Fellow.

NSF-AWM Travel Grants for Women

The objective of the NSF-AWM Travel Grants program is to enable women researchers in mathematics or in mathematics education 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. All awards will be determined on a competitive basis by a selection panel consisting of distinguished mathematicians appointed by the AWM.

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

Eligibility. These travel funds are provided by the Division of Mathematical Sciences (DMS) and the Division of Research, Evaluation and Communication (REC) of the NSF. The conference or the applicant's research must be in an area supported by DMS. Applicants must be women holding a doctorate (or equivalent experience) and with a work address in the USA (or home address, in case of unemployed mathematicians). Anyone who has been awarded an AWM-NSF travel grant in the past two years is ineligible. Anyone receiving a significant amount of external governmental funding (more than \$2,000 yearly) for travel is ineligible. Partial travel support from the applicant's institution or from a non-governmental agency does not, however, make the applicant ineligible.

Applications. An applicant should send *five* copies of 1) the AWM Travel Grant Form, where conference name, conference dates and location (city/state/country), and amount of support requested should be provided, 2) a cover letter, 3) a description of her current research and of how the proposed travel would benefit her research program, 4) her curriculum vitae, 5) a budget for the proposed travel, and 6) a list of all current and pending travel funding (governmental and non-governmental) and the amounts available for your proposed trip to: Travel Grant Selection Committee, Association for Women in Mathematics, 11240 Waples Mill Road, Suite 200, Fairfax, VA 22030. If you have questions, contact AWM by phone at 703-934-0163 or by e-mail at awm@awm-math.org. Applications via e-mail or fax will not be accepted. There are three award periods per year. The next two deadlines for receipt of applications are **February 1, 2007** and **May 1, 2007**.

AWIS and MentorNet

press release

Donna J. Dean, President of the Association of Women in Science (AWIS), and Carol Muller, Founder and CEO of MentorNet, the E-Mentoring Network for Diversity in Engineering and Science, announced today that the two organizations will extend their partnership to link more undergraduate and graduate students, postdocs and early career faculty at universities across the US with professionals in industry, government and higher education as their mentors, and particularly to increase opportunities for academic career e-mentoring.

The announcement comes on the heels of the National Academy of Science report, "Beyond Bias and Barriers," addressing barriers to women's success in academic careers. Chaired by Donna Shalala, President of the University of Miami and former US Secretary of Health and Human Services, the study committee integrated data and other research findings on gender issues across all fields of science and engineering. The report offers recommendations for faculty, department chairs and deans, other academic leaders, and professional societies to maximize the potential of women science and engineering researchers, to make it less likely their talents will be lost or underutilized.

The report documented considerable research over the last several decades providing evidence addressing commonly

held beliefs about why women are underrepresented in science and engineering, and identifying bias and discrimination, usually subtle, as the primary contributors. Due to its focus on reform of institutional practices, however, the report touched only briefly on the instrumental influences of women's networks and mentoring in supporting women in science and engineering across many institutions of higher education. Organizations such as AWIS and MentorNet provide essential networking and mentoring opportunities and venues.

"AWIS has long recognized and fostered the importance of mentoring," noted Donna J. Dean. "Our strengthened relationship with MentorNet will give our members an added advantage as they navigate their career development."

"Partnerships with organizations like AWIS enable our online mentoring network to expand its reach and impact, and benefit from the complementary core competencies of each of our organizations," said Carol Muller. "AWIS and MentorNet have worked closely together since the earliest planning for MentorNet began in 1996, and we are delighted to be able to expand this strong collaboration in support of our common goals in advancing women in science."

As a result of the new partnership, all AWIS members will have free access to MentorNet's One-on-One Mentoring program. As an added benefit to mentors, AWIS is offering a 25% discount on its award-winning publication, *A Hand Up: Women Mentoring Women in Science*, to all mentors and protégés participating in MentorNet.

Call for Nominations: 2008 Louise Hay Award

The Executive Committee of the Association for Women in Mathematics has established the Louise Hay Award for Contributions to Mathematics Education, to be awarded annually to a woman at the Joint Prize Session at the Joint Mathematics Meetings in January. The purpose of this award is to recognize outstanding achievements in any area of mathematics education, to be interpreted in the broadest possible sense. The annual presentation of this award is intended to highlight the importance of mathematics education and to evoke the memory of all that Hay exemplified as a teacher, scholar, administrator, and human being.

The nomination documents should include: a one to three page letter of nomination highlighting the exceptional contributions of the candidate to be recognized, a curriculum vitae of the candidate not to exceed three pages, and three letters supporting the nomination. It is strongly recommended that the letters represent a range of constituents affected by the nominee's work. Five complete copies of nomination materials for this award should be sent to: The Hay Award Selection Committee, Association for Women in Mathematics, 11240 Waples Mill Road, Suite 200, Fairfax, VA 22030. Nominations must be received by **April 30, 2007** and will be kept active for three years. For more information, phone (703) 934-0163, e-mail awm@awm-math.org or visit www.awm-math.org. Nominations via email or fax will not be accepted.

AWM would like to invite you to our events to be held in conjunction with the Joint Mathematics Meetings,
New Orleans Marriott & Sheraton New Orleans, New Orleans, LA, January 5–8, 2007.

PRELIMINARY SCHEDULE OF EVENTS

FRIDAY, JANUARY 5

- 8:00 a.m. – 10:55 a.m.** **AMS-AWM Special Session on Geometric Group Theory, I**
Organizers: Ruth M. Charney, Brandeis University; Karen Vogtmann, Cornell University
- 8:00 a.m.** Adam Piggott*, Tufts University *Automorphisms of right-angled groups*
Mauricio Gutierrez, Tufts University
- 8:30 a.m.** Jason A. Behrstock*, University of Utah *Quasi-isometric classification of graph manifolds*
Walter D. Neumann, Barnard College,
Columbia University
- 9:00 a.m.** Jon McCammond, UC Santa Barbara *Dual presentations for Artin groups*
- 9:30 a.m.** Robert W. Bell, Michigan State University *Spaces with nonpositive immersions*
- 10:00 a.m.** Kai-Uwe Bux*, University of Virginia *A geometric perspective on the conjugacy problem*
Dimitriy Sonkin, University of Virginia *in Thompson’s group F*
- 10:30 a.m.** Mark Sapir, Vanderbilt University *Hilbert space compression of groups*
- 2:15 p.m. – 3:40 p.m.** **Panel Discussion: “Women Advancing to Leadership: When and How”**
Organizer: Barbara Lee Keyfitz, Fields Institute and University of Houston
Panelists: Lisa Fauci, Tulane University, Department of Mathematics; Cathy B. Kessel, Berkeley, California,
Mathematics Education Consultant; Johanna Levelt Sengers, NIST Scientist Emeritus; Joan R. Leitzel,
University of New Hampshire, President Emerita; and Carolyn R. Mahoney, Lincoln University, President
- Before the panel begins, AWM will recognize the 17th Annual Alice T. Schafer
Prize Honorees [winner, runner(s)-up and honorable mention(s).]*
- 3:45 p.m. – 4:15 p.m.** **Business Meeting**
- 2:15 p.m. – 6:10 p.m.** **AMS-AWM Special Session on Geometric Group Theory, II**
- 2:15 p.m.** Tadeusz Januszkiewicz, Ohio State University *Systolic spaces: Minimal surfaces, Flat Torus Theorem
and related results, according to Tomasz Elsner*
- 2:45 p.m.** Kai-Uwe Bux, University of Virginia *$SL_3(\mathbb{Z})[t]$ is not FP_2*
Kevin Wortman*, Yale University
- 3:15 p.m.** Anne Thomas, University of Chicago *Lattices in automorphism groups of polygonal
complexes with symmetric links*

- 3:45 p.m.** Ilya Kapovich*, University of Illinois at Urbana-Champaign
Richard Weidmann, Heriott-Watt University *Algebraic finiteness for Kleinian and relatively hyperbolic groups*
- 4:15 p.m.** G. Christopher Hruska, University of Wisconsin-Milwaukee *Relative hyperbolicity of countable groups*
- 4:45 p.m.** Daniel P Groves*, California Institute of Technology
François Dahmani, Laboratoire Emile Picard,
Université Paul Sabatier, Toulouse *The Isomorphism Problem for total relatively hyperbolic groups*
- 5:15 p.m.** Noel Brady*, University of Oklahoma
Max Forester, University of Oklahoma *High dimensional isoperimetric functions of groups*
- 5:45 p.m.** Noel Brady, University of Oklahoma
Max Forester*, University of Oklahoma *High dimensional isoperimetric functions of groups*
- 9:30 p.m. – 11:00 p.m.** **Reception**
The entire mathematics community is invited; music, refreshments and cash bar available

SATURDAY, JANUARY 6

- 9:00 a.m. – 9:50 a.m.** **28th Emmy Noether Lecture:** *Automorphisms of free groups, outer space, and beyond*
presented by Karen Vogtmann, Cornell University
- 12:00 p.m. – 1:30 p.m.** **Noether Luncheon**
AWM will have a get-together with the Noether Lecturer for a casual lunch. If you would like to join us, a sign-up sheet will be available at the AWM table in the exhibit area and at the AWM panel discussion and business meeting on Friday.
- 1:00 p.m. – 3:55 p.m.** **AMS-AWM Special Session on Geometric Group Theory, III**
- 1:00 p.m.** Tara E Brendle*, Louisiana State University
Allen Hatcher, Cornell University *Wicket groups and ring groups*
- 1:30 p.m.** Craig Jensen*, University of New Orleans
Jon McCammond, UC – Santa Barbara
John Meier, Lafayette College *Brownstein-Lee Conjecture*
- 2:00 p.m.** Michael Handel, Lehman College, CUNY
Lee Mosher*, Rutgers University, Newark *Core and intersection number in compactified outer space, Part I*
- 2:30 p.m.** Michael Handel*, Lehman College, CUNY
Lee Mosher, Rutgers University, Newark *Core and intersection number in compactified outer space, Part II*
- 3:00 p.m.** James R. Conant, University of Tennessee *Unstable Morita classes in the homology of the mapping class group*
- 3:30 p.m.** Alexandra R. Pettet*, Stanford University *Cohomology of some subgroups of the automorphism group of a free group*

4:25 p.m. – 7:00 p.m. **Joint Prize Session: Presentation to the winners of the AWM 17th Annual Louise Hay Award for Contributions to Mathematics Education and 17th Annual Alice T. Schafer Prize for Excellence in Mathematics by an Undergraduate Woman**
A reception with cash bar follows.

MONDAY, JANUARY 8

8:20 a.m. – 4:20 p.m. **AWM Workshop: Presentations by Women Graduate Students and Recent Ph.D.’s**
 The entire mathematics community is invited to attend all workshop presentations. The AWM Workshop is supported by the National Security Agency and the Office of Naval Research.
Organizers: Claudia Polini (Chair), University of Notre Dame; Jeanne Clelland, University of Colorado; and Moira McDermott, Gustavus Adolphus College and Hobart & William Smith Colleges

8:20 a.m. – 8:30 a.m. **Opening Remarks**

8:30 a.m. – 10:30 a.m. **AWM Sponsored Research Presentations by Recent Ph.D.s**

8:30 a.m. – 8:50 a.m.	Alisa S. Crans, Loyola Marymount University	<i>Categorical self-distributivity</i>
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9:00 a.m. – 9:20 a.m.	Wandi Ding, The University of Tennessee – Knoxville	<i>Optimal harvesting of a semilinear elliptic fishery model</i>
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9:30 a.m. – 9:50 a.m.	Julia Bergner, Kansas State University	<i>Thirteen ways of looking at a topological group</i>
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10:00 a.m. – 10:20 a.m.	Angela K. Barnhill, The Ohio State University	<i>Nonpositively curved decompositions of Coxeter groups</i>
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10:30 a.m. – 11:45 a.m. **AWM Sponsored Poster Session with Presentations from Women Graduate Students**

	Yekaterina Epshteyn, University of Pittsburgh	<i>High order fully coupled discontinuous finite element methods for two-phase flow</i>
	Jennifer M. Franko, Indiana University	<i>Representations of the braid group via the Yang Baxter equation</i>
	Fumiko Futamura, Vanderbilt University	<i>Localized operators and its use in determining boundedness and the construction of localized frames</i>
	Sharon Anne Garthwaite, University of Wisconsin-Madison	<i>Ramanujan’s “very interesting functions”: mock theta functions and vector-valued Maass-Poincaré series</i>

Daniela Genova, University of South Florida	<i>Topological properties of a DNA computing model</i>
Rachael Hageman, Case Western Reserve University	<i>Large scale Bayesian parameter estimation for the cardiac metabolism during ischemia</i>
Yanina Landa, University of California, Los Angeles	<i>Visibility of point clouds and application to mapping of unknown environment</i>
Grace Lyo, University of California, Berkeley	<i>Galois representations and descent in K-theory</i>
Katharine A. Ott, University of Virginia	<i>Transmission boundary value problems in non-smooth domains</i>
Elizabeth A. Sell, The University of North Carolina at Chapel Hill	<i>Universal abelian covers of normal surface singularities of the form $z^n = f(x, y)$</i>
Anna Skripka, University of Missouri-Columbia	<i>Spectral averaging in von Neumann algebras</i>
Paula A. Vasquez, University of Delaware	<i>Mathematical modeling of wormlike micellar solutions</i>

1:00 p.m. – 2:15 p.m. **AWM Workshop Panel Discussion:** “Critical career decision stages: Research and funding opportunities”
Moderator: Claudia Polini, University of Notre Dame
Panelists: Valentina S. Harizanov, The George Washington University; Kathleen O’Hara, Mathematical Sciences Research Institute; Barbara Keyfitz, Fields Institute and University of Houston; and Michelle D. Wagner, National Security Agency

2:30 p.m. – 4:20 p.m. **AWM Sponsored Research Presentations by Recent Ph.D.s, II**

2:30 p.m. – 2:50 p.m. Sarah G. Raynor, Wake Forest University *Nonvariational methods for semilinear elliptic equations of critical growth*

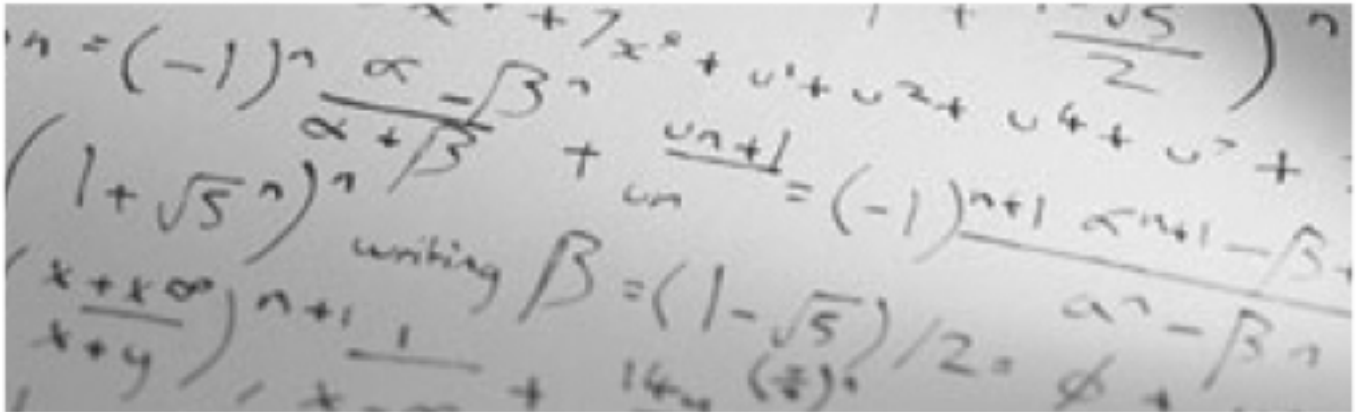
3:00 p.m. – 3:20 p.m. Mary K. Flagg, University of Houston *The Jacobson radical and an isomorphism theorem by Wolfson*

3:30 p.m. – 3:50 p.m. Amy B. Moore, Alma College *Diffusion flame stability*

4:00 p.m. – 4:20 p.m. Alessandra Pantano, Cornell University *Petite k-types and unitary representations*



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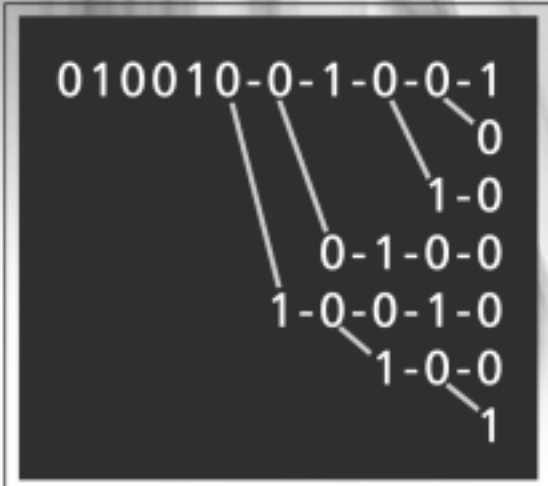


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Association for Symbolic Logic ASL Travel Awards

Student Travel Awards: The 2007 ASL Annual Meeting, 2007 ASL European Summer Meeting, and other ASL or ASL-Sponsored Meetings. The ASL will make available modest travel awards to graduate students in logic and (for the European Summer Meeting only) to recent Ph.D.'s so that they may attend the 2007 ASL Annual Meeting in Gainesville, Florida, or the 2007 ASL European Summer Meeting in Wroclaw, Poland; see below for information about these meetings. To be considered for a Travel Award, please (1) send a letter of application, and (2) ask your thesis supervisor to send a brief recommendation letter. The application letter should be brief (preferably one page) and should include: (1) your name; (2) your home institution; (3) your thesis supervisor's name; (4) a one-paragraph description of your studies and work in logic, *and, in the case of an ASL student member application to attend an ASL or ASL-sponsored meeting other than the Annual Meeting or European Summer Meeting, a paragraph indicating why it is important to attend the meeting;* (5) your estimate of the travel expenses you will incur; (6) (for citizens or residents of the USA) citizenship or visa status; and (7) (voluntary) indication of your gender and minority status. Women and members of minority groups are strongly encouraged to apply. In addition to funds provided by the ASL, the program of travel grants to the ASL Annual Meeting and the European Summer Meeting is supported by a grant from the US National Science Foundation; NSF funds may be awarded only to students at USA universities and to citizens and permanent residents of the USA. Air travel paid for using NSF funds must be on a US flag carrier. Application by email is encouraged; put "ASL travel application" in the subject line of your message.

For the 2007 ASL Annual Meeting, applications and recommendations should be received before the deadline of December 22, 2006, by the Program Chair: Mirna Dzamonja, School of Mathematics, University of East Anglia, Norwich, UK, NR4 7TJ; Fax: +44 (0)1603 593868; email: M.Dzamonja@uea.ac.uk.

For the 2007 ASL European Summer Meeting, applications and recommendations should be received before the deadline of March 19, 2007. The address to which applications and recommendations should be sent will be announced at <http://www.aslonline.org/studenttravelawards.html>.

For ASL student member travel grants to other ASL or ASL-sponsored meetings, applications and recommendations should be received at least three months prior to the meeting at the ASL Business Office: ASL, Box 742, Vassar College, 124 Raymond Avenue, Poughkeepsie, New York 12604, USA; Fax: 1-845-437-7830; email: asl@vassar.edu. Decisions will be communicated at least two months prior to the meeting.

For further information about these meetings, and other ASL and ASL-sponsored meetings, visit the ASL website at <https://aslonline.org/Meetings.htm>

ASL, Box 742, Vassar College
124 Raymond Ave., Poughkeepsie, NY 12604
email: asl@vassar.edu; Fax: 845-437-7830
Also visit the ASL website: <http://www.aslonline.org>.

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Assistant Professor of Mathematics Education

The Department of Mathematics at The University of Alabama invites applications for one tenure-track position at the level of assistant professor in the area of Mathematics Education beginning in fall 2007. Candidates must possess a doctorate in mathematics or mathematics education with a master's degree in mathematics (or equivalent) by August 31, 2007. Candidates are expected to have strong potential for research in mathematics education at the K-16 level, a commitment to excellence in teaching, and a desire to work with pre-service and in-service K-16 teachers. It is expected that the successful applicant will teach mathematics and mathematics education courses throughout the undergraduate and graduate curriculum. Preference will be given to candidates with K-16 teaching experience, ability to secure external funding, and ability to join and help establish a strong research group in mathematics education. The salary will be commensurate with the successful candidate's experience.

All candidates should provide a cover letter, curriculum vita, graduate transcripts, statement of research interests, statement of teaching philosophy, and at least three letters of recommendation to: **Mathematics Education Search Committee, Department of Mathematics, The University of Alabama, Box 870350, Tuscaloosa, AL 35487-0350**. Review of applications will begin November 1, 2006 and continue until the position is filled. For more information about the department of university, visit our website: <http://www.math.ua.edu>

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MATHEMATICS POSITIONS ANNOUNCEMENT

We invite applications for three anticipated tenure-track faculty positions in mathematics at the Assistant Professor level to begin in the fall of 2007. Candidates must have a Ph.D. in mathematics by September 2007 and show a commitment to excellence in both teaching and research. All research areas will be considered but we are especially interested in people whose work overlaps with the research of current faculty. Active areas of research include ordered algebra, functional analysis, mathematical physics, quantum computation, C*-algebras, non-associative algebra, combinatorics, and topological dynamics.

The University of Denver is a medium-size (10,000 students) private university located in a thriving metropolis at the base of the Rocky Mountains. Class sizes are small, the teaching load is moderate and the salary is competitive. The department offers bachelor's, master's and Ph.D. degrees in mathematics. The University of Denver is committed to enhancing the diversity of its faculty and staff and encourages applications from women, persons of color, persons with disabilities and veterans.

Applications which are complete by January 5, 2007 will be given full consideration. The search will continue until the positions are filled. Qualified applicants should submit an AMS cover sheet, a curriculum vitae, a teaching statement and a research statement. In addition, four letters of recommendation, three concerning research and one teaching, should be submitted on behalf of the applicant.

For complete details of the application process and to apply, go to www.mathjobs.org. If you have questions, send email to hiring@math.du.edu. If you do not wish to apply via [mathjobs.org](http://www.mathjobs.org), you may send application material to Mathematics Search Committee, Department of Mathematics, University of Denver, Denver, CO 80208.

Associate Secretary
Mathematical Association of America
Washington, DC

The Mathematical Association of America (MAA) is seeking applicants for the position of Associate Secretary. The Associate Secretary oversees the scientific programs of the MAA's two national meetings, the Joint Mathematics Meeting, held together with the American Mathematical Society (AMS), and the MAA summer meeting, MathFest.

The Associate Secretary is elected by the Board of Governors for a five-year, renewable term and serves as a member of the Board. The new Associate Secretary will spend at least one year as Associate Secretary Elect before taking office as Associate Secretary in February 2009. Compensation and expenses are negotiable and dependent on the requirements and practices of both the MAA and one's home institution. The position is part-time but requires a commitment of time distributed through the year.

For a more detailed description of the position see www.maa.org and the announcement in the November issue of *FOCUS*, the newsletter of the MAA.

Send resume and letter describing interest in the position and relevant experiences to:

Associate Secretary Search Committee
Mathematical Association of America
1529 18th Street
Washington, DC 20036
email: ceuving@maa.org
fax: 202-387-5948

Applications from individuals from underrepresented groups are encouraged. Additional information about the MAA may be found on MAA's website: www.maa.org. AA/EOE.

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AMERICAN UNIVERSITY — Tenure-track Assistant Professor in Mathematics, American University, beginning Fall 2007. PhD required. American University is an AA/EEO employer, committed to a diverse faculty, staff, and student body. Minority and women candidates are encouraged to apply. For position information and application instructions, see math.american.edu/positions, or contact the Department of Mathematics and Statistics at (202) 885-3120.

BELLARMINE UNIVERSITY — Assistant Professor of Math — Tenure-track Assistant Professor position available, starting August 2007. The position requires the ability to teach upper-level probability & statistics, to otherwise enhance our program in actuarial science, and to teach service courses in mathematics. Ph.D. required or anticipated by fall 2007. Experience at teaching with technology is highly desired. The department offers both a mathematics major and an actuarial science major, plus preparation for secondary teaching. We have our own computer teaching laboratories. Bellarmine University is an independent Catholic liberal arts institution which emphasizes excellent teaching in both major and service courses. We are in a period of enrollment growth and Mathematics plays an active role across the university. Faculty has the opportunity to teach in the interdisciplinary core curriculum and in the honors program. For more information about Bellarmine and the Mathematics Department, consult <http://www.bellarmino.edu/cas/mathematics/index.asp>. Bellarmine University is located in a residential area within Louisville, KY, a major metropolis with a thriving arts scene and a nationally recognized park system. Women and minorities are encouraged to apply. Send a letter of application, vita, statement on teaching, copies of transcripts, and three letters of recommendation to: William Fenton, chair. Please indicate whether you plan to attend the Joint Meetings. Consideration will begin in early December and continue until the position is filled. A department representative will attend the Joint Meetings. EEO/AA.

BOWLING GREEN STATE UNIVERSITY — Department of Mathematics and Statistics — The Department of Mathematics and Statistics at Bowling Green State University invites applications for a tenure-track position in pure mathematics at the rank of Assistant Professor starting August, 2007. Strong preference will be given to candidates specializing in Ordered Algebraic Structures or Ring Theory who will strengthen or complement current faculty research. The successful candidate will have a doctorate in mathematics, a strong research record, the ability to obtain external funding, and will be committed to outstanding teaching at all levels of undergraduate and graduate study. Usual duties consist of teaching two courses each semester, conducting scholarly research, supervising graduate students, seeking external funding, and participating in service activities. Applications by **December 1, 2006** to Search Committee, Department of Mathematics and Statistics, Bowling Green State University, Bowling Green, OH 43403-0221. For further details see www.bgsu.edu/dept/math/. BGSU is an AA/EEO employer.

BROWN UNIVERSITY, DIVISION OF APPLIED MATHEMATICS — Postdoctoral Position — Applications are invited for a postdoctoral position in the area of Stochastic Partial Differential Equations starting on July 1, 2007. A Ph.D. in applied mathematics, engineering, physics, or related fields is required. Preference will be given to applicants with strong backgrounds in stochastic differential equations, nonlinear filtering (HMM), sequential Monte Carlo methods, stochastic numerical methods, and related topics. The initial appointment will be made for one year, but it is renewable. Applicants should submit curriculum vitae, representative preprints and reprints, a concise description of research interests and goals, and three letters of recommendation to: Postdoctoral Search, Professor Boris Rozovsky, Division of Applied Mathematics, Brown University, PO BOX F, Providence, Rhode Island 02912 USA. Consideration of the applications will begin on **December 1, 2006**. Applications will be accepted until the position is filled. Brown University is an affirmative-action/equal-opportunity employer. Women and minorities are encouraged to apply.

BROWN UNIVERSITY — MATHEMATICS DEPARTMENT — J. D. Tamarkin Assistant Professorship: One three-year non-tenured non-renewable appointment, beginning July 1, 2007. The teaching load is one course one semester, and two courses the other semester and consists of courses of more than routine interest. Candidates are required to have received a Ph.D. degree or equivalent by the start of their appointment, and they may have up to three years of prior academic and/or postdoctoral research experience. Applicants should have strong research potential and a commitment to teaching. Field of research should be consonant with the current research interests of the department. For full consideration, a curriculum vitae, an AMS Standard Cover Sheet, and three letters of recommendation must be received by **December 1, 2006**. All inquiries and materials should be addressed to: Junior Search Committee, Department of Mathematics, Brown University, Providence, RI 02912. To access the AMS Standard Cover Sheet, visit our website: <http://www.math.brown.edu/juniorsearch.html>. E-mail inquiries should be addressed to juniorsearch@math.brown.edu. Brown University is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minorities.

BROWN UNIVERSITY — MATHEMATICS DEPARTMENT — The Mathematics Department at Brown University invites applications for two positions at the level of Associate or Full Professor to begin July 1, 2007. We seek to fill one of the positions in the area of analysis, broadly construed. Candidates should have a distinguished research record and a strong commitment to excellence in undergraduate and graduate teaching. Preference will be given to applicants with research interests consonant with those of the present members of the Department. For more information see: <http://www.math.brown.edu/faculty/faculty>. Qualified individuals are invited to send a letter of application and a curriculum vitae to: Senior Search Committee, Department of Mathematics, Box 1917, Brown University, Providence, Rhode Island 02912. Applicants for Full Professor should include the names of five references who would be contacted at the appropriate time by the Search Committee. Applicants for Associate Professor should have three letters of reference sent at the time of application. Applications received by October 30, 2006 will receive full consideration, but the search will remain open until the positions are closed or filled. For further information or inquiries, write to sresearch@math.brown.edu. Brown University is an Equal Opportunity/Affirmative Action employer and encourages applications from women and minorities.

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA — MATH & STAT DEPARTMENT — 2 tenure track or tenured positions in Math Ed, 1 tenure track position in Stat beginning 9/2007. Rank/salary/tenure dep. on quals. Good benefits. Start-up funds, reduced teaching first year. Potential for excellent teaching, scholarship & directing master's theses. We have a student body with diverse socio-economic, cultural backgrounds & learning styles. We are looking for faculty who can work successfully in this environment. Math Ed (Asst/Assoc/Full Prof. Level) Doctorate in Math Ed. (or rel field) w/ MA in Math (or equiv). Teach undergrad/grad Math Ed. Opportunity to engage in supervising sec. student teachers, working w/teachers & students in local schools, participating in research/grant work related to K-16 teaching & learning, & dev. curriculum. Teaching opportunities: courses for pre-service elementary, secondary, & post-secondary teachers, lower & upper division mathematics courses. Statistics (Asst Prof. Level): Doctorate in Stats (or rel area). Teach undergrad/grad statistics. Stats consulting expected. Preferred area/s: stats consulting, design of experiments, multivariate analysis, time series analysis, & biostatistics. Application deadlines: Math Ed, 12/7/06 Stat, 1/18/07. To be included in first review, completed applications must be received by deadlines. Appls. completed after these dates may be considered until position filled/closed. Submit appl. form, curr. vitae, teaching philosophy, research statement, undergrad and grad transcripts, min 3 recent ref letters. Indicate position. Address potential to meet position description listed above. Send to: Faculty Search Committee, Math & Stat Dept, Cal Poly Pomona, 3801 W. Temple Ave., Pomona, CA 91768-4007; 909-869-4008; Fax: 909-869-4904; See <http://www.csupomona.edu/~math/position>. AA/EEO.

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COLBY COLLEGE, DEPARTMENT OF MATHEMATICS — The Department of Mathematics at Colby College invites applications for a tenure-track position in mathematics at the assistant professor level, beginning September 1, 2007. Preference will be given to candidates with active research programs in subfields of geometry or topology. Exceptional candidates in other fields will also be considered. Candidates should have a Ph.D. in mathematics and should show promise in both teaching and research. The appointee will be expected to maintain a vigorous research program while also being an exceptional teacher and advisor at the undergraduate level. Teaching load is five courses a year. Send curriculum vitae, statements on teaching and research, and three letters of recommendation to: Tenure Track Search Chair, Department of Mathematics, Colby College, 5830 Mayflower Hill, Waterville, ME 04901. We cannot accept applications in electronic form. Review of applications will begin on November 15, 2006 and will continue until the position is filled. Colby is a highly selective liberal arts college located in central Maine. The college is a three-hour drive north of Boston and has easy access to lakes, skiing, the ocean, and other recreational and cultural activities. For more information about the position and the department, visit our web site at www.colby.edu/math. Colby is an Equal Opportunity/Affirmative Action employer, committed to excellence through diversity, and strongly encourages applications and nominations of persons of color, women, and members of other under-represented groups. For more information about the College, please visit the Colby Web site at www.colby.edu.

CORNELL UNIVERSITY, SCHOOL OF OPERATIONS RESEARCH & INDUSTRIAL ENGINEERING — One or more tenure-track and/or tenured positions. Rank open. PhD required in Mathematics, OR, Statistics, or related field. Expertise in Financial Engineering research and teaching is required. Involvement in the School's Masters Program in Financial Engineering is expected. Salary appropriate to qualifications and engineering norms. ORIE at Cornell is a diverse group of probabilists, math programmers, statisticians, and those working in simulation and manufacturing systems. An ideal candidate will have broad training and interests and two years' postdoctoral experience for a junior position, although a senior position is being seriously considered as well. CV, 1-page statement of research and teaching interests, doctoral transcript for junior applicants, and four letters of recommendation should be sent to Financial Engineering Search, ORIE, Rhodes Hall, Cornell University, Ithaca, NY 14853-3801. Applications completed by December 31, 2006 given preference. Women and minority candidates especially encouraged to apply. Cornell University is an AA/EOE. Please indicate you are applying for the tenured or tenure-track position on your application.

CORNELL UNIVERSITY, SCHOOL OF OPERATIONS RESEARCH & INDUSTRIAL ENGINEERING — One or more postdoctoral positions. PhD required in Mathematics, OR, Statistics, or related field. Expertise in Financial Engineering research and teaching is required. Involvement in the School's Masters Program in Financial Engineering is expected. Salary appropriate to qualifications and Engineering norms. ORIE at Cornell is a diverse group of probabilists, math programmers, statisticians, and those working in simulation and manufacturing systems. An ideal candidate will have broad training. CV, 1-page statement of research and teaching interests, doctoral transcript, and three letters of recommendation should be sent to Financial Engineering Search, ORIE, Rhodes Hall, Cornell University, Ithaca, NY 14853-3801. Applications completed by December 31, 2006 given preference. Women and minority candidates especially encouraged to apply. Cornell University is an AA/EOE. Please indicate you are applying for the postdoctoral position in your application.

DARTMOUTH COLLEGE — John Wesley Young Research Instructorship, 2-3 years, new or recent Ph.D. graduates whose research overlaps a department member's. Teach 4 ten-week courses spread over 3 terms. Appointment for 26 months, with possible 12 month renewal; monthly salary of \$4,650.00, including two-month research stipend for Instructors in residence during 2 of 3 summer months; if not in residence, salary adjusted accordingly. Applications may be obtained at <http://www.math.dartmouth.edu/recruiting>. Or, send letter of application, curriculum vitae, graduate school transcript, thesis abstract, statement of research plans and interests, and at least three, preferably four, letters of recommendation to Annette Luce, Department of Mathematics, Dartmouth College, 6188 Kemeny Hall, Hanover, New Hampshire 03755-3551. Files complete by January 5, 2007 considered first. Dartmouth College is committed to diversity and strongly encourages applications from women and minorities.

DARTMOUTH COLLEGE — Tenure-track Mathematics Assistant Professorship beginning 2007-2008. In extraordinary cases, appointment at higher rank is possible. Candidates should be working in discrete or combinatorial mathematics with connections to existing research interests in the department. Examples include discrete probability, graph theory, algebraic combinatorics, combinatorial number theory, and discrete geometry. In exceptional circumstances, other research areas may be considered. Candidates must have strong commitment to outstanding teaching and interaction with students at all levels of undergraduate and graduate study. New faculty members are offered grants for research-related expenses, one quarter of sabbatical leave for each three academic years in residence, and flexible scheduling of teaching responsibilities. Teaching load is three courses spread over three of four ten-week terms. Applications may be obtained at <http://www.math.dartmouth.edu/recruiting>. Or, send application letter, vita, research statement, four recommendation letters (one teaching), to Annette Luce, Department of Mathematics, Dartmouth College, 6188, Kemeny Hall, Hanover, NH 03755-3551. Applications completed by December 15, 2006 considered first. Women and minorities encouraged to apply.

DAVIDSON COLLEGE — The Department of Mathematics anticipates an opening for a regular appointment at the Assistant Professor level with an initial two-year appointment to begin August 1, 2007. Completion or imminent completion of the Ph.D. is required. Candidates must be committed to outstanding teaching and continuing scholarly activity. The teaching load is 5 semester courses per year. Applicants should address their professional interests and goals within a cover letter, teaching statement, and research statement. These documents, along with a curriculum vitae and (unofficial) graduate and undergraduate transcripts, must be submitted to <https://jobs.davidson.edu/>. A completed application also requires 3 letters of reference, of which at least one must specifically address the applicant's teaching, sent to Prof. Richard Neidinger, Chair, Department of Mathematics, Davidson College, Box 7129, Davidson, NC 28035-7129. Applications received by November 20, 2006, will receive fullest consideration. For more information, see the "Faculty Position" link at <http://www.davidson.edu/math/>. Davidson is a highly selective, nationally ranked four-year liberal arts college with a Presbyterian heritage. Davidson College is an Equal Opportunity Employer; women and minorities are encouraged to apply.

INDIANA UNIVERSITY OF PENNSYLVANIA, MATHEMATICS DEPARTMENT — Statistics Faculty Positions — Indiana University of Pennsylvania Mathematics Department invites applications for two tenure track faculty positions in Statistics to begin in fall 2007. A doctoral degree in the appropriate field is required. Review of applications begins December 1, 2006 and continues until positions are filled or closed. All applicants must be work eligible. For complete job description, requirements, and application procedures, log on to <http://www.math.iup.edu/jobs>, e-mail cmaier@iup.edu, or call 724-357-2608. IUP is an equal opportunity employer M/F/H/V.

INSTITUTE FOR ADVANCED STUDY, SCHOOL OF MATHEMATICS — The Institute for Advanced Study, School of Mathematics has a limited number of memberships, some with financial support for research in mathematics and computer science at the Institute during the 2007-08 academic year. Candidates must have given evidence of ability in research comparable at least with that expected for the Ph.D. degree. During the 2007-08 academic year, Roman Bezrukavnikov of MIT will lead a special program on

algebraic geometry and physics in representation theory. During term I of the year, School faculty member Jean Bourgain and Van Vu of Rutgers University will lead a program on arithmetic combinatorics. The School of Mathematics and the Department of Mathematics at Princeton University have established the Veblen Research Instructorship, and three-year instructorships will be offered each year to candidates who have received their Ph.D. within the last 3 years. The first and third year of the instructorship will be spent at Princeton University and will carry regular teaching responsibilities. The second year will be spent at the Institute and dedicated to independent research of the instructor's choice. Application materials for both the IAS MEMBERSHIPS and the VEBLÉN RESEARCH INSTRUCTORSHIP positions may be requested from Applications, School of Mathematics, Institute for Advanced Study, Einstein Drive, Princeton, NJ 08540, e-mail: applications@math.ias.edu. Application forms may be downloaded via a web connection to <http://www.math.ias.edu>. Both deadlines are **December 1**.

IOWA STATE UNIVERSITY — Iowa State University Department of Mathematics invites applications for a tenure-track Assistant Professor position, in the area of probability and applications, or in mathematical biology, to begin August 16, 2007. The Department has established researchers in both areas. A candidate would be expected to fit into one of the existing groups. For further information about the department and its research groups, visit the department's web site at <http://www.math.iastate.edu/>. A new faculty member would be expected to: maintain an active research program, teach undergraduate courses in mathematics, teach and advise graduate students in his/her area. A Ph.D. in mathematics or related area, an excellent record in research, and evidence of effective teaching are required. The teaching load for untenured faculty is three courses per year. Preference may be given to candidates who: have postdoctoral research experience in one of the relevant areas, can pursue interdisciplinary research with faculty in other ISU departments. Applicants must submit a vita, a brief statement describing their research accomplishments and plans, and an AMS Coversheet. They must also arrange for four (4) letters of recommendation, one (1) of which must address the applicant's teaching ability and experience. These materials may be submitted electronically to mathsearch@iastate.edu or mailed to Search Committee, Department of Mathematics, 396 Carver, Iowa State University, Ames, IA 50011-2064. Deadline for full consideration is **December 1, 2006**, although may be reviewed until the position is filled. Iowa State University is an affirmative action/equal opportunity employer and strongly encourages women and members of underrepresented groups to apply.

JOHNS HOPKINS UNIVERSITY — Subject to availability of resources and administrative approval, the Department of Mathematics solicits applications for one **non-tenure-track J.J. Sylvester Assistant Professor for the 2007-2008 academic year**. The J.J. Sylvester Assistant Professorship is a three-year position offered to recent Ph.D.'s with outstanding research potential. Candidates in all areas of pure mathematics, including analysis, mathematical physics, geometric analysis, complex and algebraic geometry, number theory, and topology are encouraged to apply. The teaching load is three courses per academic year. **To submit your applications go to www.mathjobs.org/jobs/jhu.** Applicants are strongly advised to submit their other materials electronically at this site. If you do not have computer access, you may mail your application to: Appointments Committee, Department of Mathematics, Johns Hopkins University, 404 Krieger Hall, Baltimore, MD 21218, and should include a vita, at least four letters of recommendation of which one concerns teaching, and a description of current and planned research. Write to math@math.jhu.edu for questions concerning these positions. Applications received by **November 1, 2006** will be given priority. The Johns Hopkins University is an Affirmative Action/Equal Opportunity Employer. Minorities and women candidates are encouraged to apply.

JOHNS HOPKINS UNIVERSITY — Subject to availability of resources and administrative approval, the Department of Mathematics solicits applications for one **Tenure-track Assistant Professor for the 2007-2008 academic year**. The Assistant Professorship is a three-year position. Candidates in all areas of pure mathematics, including analysis, mathematical physics, geometric analysis, complex and algebraic geometry, number theory, and topology are encouraged to apply. The teaching load is three courses per academic year. **To submit your applications go to www.mathjobs.org/jobs/jhu.** Applicants are strongly advised to submit their other materials electronically at this site. If you do not have computer access, you may mail your application to: Appointments Committee, Department of Mathematics, Johns Hopkins University, 404 Krieger Hall, Baltimore, MD 21218, and should include a vita, at least four letters of recommendation of which one concerns teaching, and a description of current and planned research. Write to math@math.jhu.edu for questions concerning these positions. Applications received by **November 1, 2006** will be given priority. The Johns Hopkins University is an Affirmative Action/Equal Opportunity Employer. Minorities and women candidates are encouraged to apply.

KANSAS STATE UNIVERSITY, DEPARTMENT OF MATHEMATICS — Subject to budgetary approval, applications are invited for an Algebra Coordinator position. The coordinator will work with the Center for Quantitative Education on the design and implementation of a new instructional program in College Algebra in a modern technological environment. The coordinator will collaborate with the director of the center, teach in the program, assist in training graduate students, and manage student interactions. The successful candidate should demonstrate a strong commitment to excellence in teaching, mentoring of students, and to serving a diverse population. An M.S. in mathematics is required and strong preference will be given to applicants with a Ph.D. Preference will also be given to applicants with background in mathematics education, especially in the training of graduate students, and/or teaching with technology. Letter of application, current vita, three letters of reference, and a statement of teaching philosophy should be sent to: Louis Pigno, Kansas State University, Department of Mathematics, Cardwell Hall 138, Manhattan, KS 66506. Applications for the position will be reviewed beginning **November 1, 2006**, and will continue until the position is closed. A start date for the position of December 31, 2006, is possible, or a start date of June 2007 may be negotiated if necessary. Kansas State University is an equal opportunity employer and actively seeks diversity among its employees. Paid for by Kansas State University.

KANSAS STATE UNIVERSITY, DEPARTMENT OF MATHEMATICS — Subject to budgetary approval, applications are invited for open rank tenure-track positions commencing August 12, 2007; rank and salary commensurate with qualifications and candidates should indicate for which rank they are applying. For Assistant Professor, a Ph.D. in mathematics or a Ph.D. dissertation accepted with only formalities to be completed is required by the time of appointment. Candidates for positions above the rank of Assistant Professor should have attained national recognition in his or her field of scholarship. The Department seeks candidates whose research interests mesh well with current faculty. The Department has research groups in the areas of analysis, algebra, geometry/topology, and differential equations. Successful candidates should have strong research credentials as well as strong accomplishment or promise in teaching and should demonstrate a strong commitment to mentoring students, and to serving a diverse population. Applicants must submit the following: a letter of application, curriculum vita, outline of teaching philosophy, and a statement of research objectives. Four letters of reference, at least one of which addresses the applicant's teaching ability and potential, should be sent to: Louis Pigno, Department of Mathematics, Cardwell Hall 138, Kansas State University, Manhattan, KS 66506. Offers may begin by December 1, 2006, but applications for position will be reviewed until **February 1, 2007**, or until position is closed. Kansas State University is an equal opportunity employer and actively seeks diversity among its employees.

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KANSAS STATE UNIVERSITY, DEPARTMENT OF MATHEMATICS — Subject to budgetary approval, applications are invited for one or more visiting Assistant Professorships commencing August 12, 2007. These will be annual appointments, and can be renewed up to two years for a total of three years in residence. A Ph.D. in mathematics or a Ph.D. dissertation accepted with only formalities to be completed is required by the time of appointment. The Department seeks candidates whose research interests mesh well with current faculty. The Department has research groups in the areas of analysis, algebra, geometry/topology, and differential equations. Preference will be given to candidates with strong research credentials who have a strong commitment to and demonstrable excellence in teaching undergraduate and graduate courses, mentoring students, and to serving a diverse population. Successful candidate(s) will be expected to participate in the Department's REU and graduate research program. Applicants must submit the following: a letter of application, curriculum vita, outline of teaching philosophy, and a statement of research objectives. Four letters of reference, at least one of which addresses the applicant's teaching ability, should be sent to: Louis Pigno, Department of Mathematics, Cardwell Hall 138, Kansas State University, Manhattan, KS 66506. Offers may begin by **December 1, 2006**, but applications will be reviewed until positions are closed. Kansas State University is an equal opportunity employer and actively seeks diversity among its employees.

MACALESTER COLLEGE, Saint Paul, MN — Applications are invited for two tenure track positions to begin Fall 2007, one in applied and one in theoretical mathematics. A Ph.D. and the potential for teaching excellence supported by a strong research program are required. Relevant specialties in applied math include mathematical modeling, optimization, and/or related fields. For theoretical math, we seek candidates with strengths in computational geometry, topology, or related visual fields. We encourage exceptional candidates in any field to apply. For more information and application instructions see: www.macalester.edu/mathcs/. Our department has broad interests in theoretical and applied mathematics, statistics, and computational science. Macalester College is a selective, private liberal arts college located in the Minneapolis—St. Paul metropolitan area. As an Equal Opportunity employer, the College encourages applications from women and members of underrepresented minority groups.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, DEPARTMENT OF MATHEMATICS — The pure mathematics group at MIT is seeking to fill possible positions at the level of assistant professor or higher for September 2007. Appointments will be made based on demonstrated research qualifications. Candidates in all areas of pure mathematics will be considered. We request that applications and other materials, including (a) curriculum vitae, (b) research descriptions, and (c) three letters of recommendation, be submitted online at www.mathjobs.org. Applications should be complete by **December 1, 2006** to receive full consideration. We request that your letters of reference be submitted by the reviewers online via mathjobs. Alternatively, they may be sent to: Pure Mathematics Committee, Massachusetts Institute of Technology, Room 2-263, 77 Massachusetts Ave., Cambridge, MA 02139-4307. MIT is an Equal Opportunity, Affirmative Action Employer. For more information about our department, please see math.mit.edu.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, DEPARTMENT OF MATHEMATICS — C.L.E. Moore Instructorships In Mathematics — These positions for September 2007 are open to mathematicians with doctorates who show definite promise in research. Candidates in all areas of pure mathematics will be considered. We request that applications and other materials, including (a) curriculum vitae, (b) research descriptions, and (c) three letters of recommendation, be submitted online at www.mathjobs.org. Applications should be complete by December 1, 2006 to receive full consideration. We request that your letters of reference be submitted by the reviewers online via mathjobs. Alternatively, they may be sent to: Pure Mathematics Committee, Massachusetts Institute of Technology, Room 2-263, 77 Massachusetts Ave., Cambridge, MA 02139-4307. MIT is an Equal Opportunity, Affirmative Action Employer. For more information about our department, please see math.mit.edu.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, DEPARTMENT OF MATHEMATICS: APPLIED MATHEMATICS — The applied mathematics group at MIT is seeking to fill possible positions at the level of Instructor, Assistant Professor or higher, beginning September 2007. Appointments will be made based on demonstrated research qualifications. Candidates in all areas of applied mathematics, including physical applied mathematics, computational molecular biology, numerical analysis, scientific computation, and theoretical computer science will be considered. Current activities of the group include: combinatorics, operations research, theory of algorithms, numerical analysis, astrophysics, condensed matter physics, computational physics, fluid dynamics, geophysics, nonlinear waves, theoretical and computational molecular biology, material sciences, quantum computing and quantum field theory, but new hiring may involve other areas as well. We request that applications and other materials, including (a) curriculum vitae, (b) research descriptions, and (c) three separately-sent letters of recommendation, be submitted online at www.mathjobs.org, and preferably well in advance of our deadline of January 1, 2007 since we expect to begin our deliberations already in December. In case this online route proves greatly inconvenient for recommenders, we will also accept recommendations either as PDF attachments to e-mails sent to applied@math.mit.edu or else even as paper copies mailed to Committee on Applied Mathematics, Room 2-345, Department of Mathematics, MIT, 77 Massachusetts Ave., Cambridge, MA 02139-4307. However, please do not use those addresses to transmit mere duplicates of items already submitted online. MIT is an Equal Opportunity, Affirmative Action Employer. For more information about our department, please see math.mit.edu.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, DEPARTMENT OF MATHEMATICS: STATISTICS — The Department of Mathematics at MIT is seeking to fill possible positions at the level of Instructor, Assistant Professor or higher in STATISTICS or APPLIED PROBABILITY beginning September 2007. Appointments will be made based on demonstrated research qualifications. We request that applications and other materials, including (a) curriculum vitae, (b) research descriptions, and (c) three separately-sent letters of recommendations, be submitted online at www.mathjobs.org. Applications should be complete by **January 1, 2007** to receive full consideration. We request that your letters of reference be submitted by the reviewers via mathjobs. Alternatively, they may be sent to: Committee on Mathematical Statistics, Room 2-263, Department of Mathematics, MIT, 77 Massachusetts Ave., Cambridge, MA 02139-4307. MIT is an Equal Opportunity, Affirmative Action Employer. For more information about our department, please see math.mit.edu.

MICHIGAN STATE UNIVERSITY, Department of Mathematics — The Department of Mathematics, pending budgetary approval, expects to have two tenure-track positions available, beginning in the fall of 2007. It is expected that the successful candidates will be appointed at the rank of assistant professor, but truly outstanding applicants for appointment at a higher rank will be considered. Excellence is essential in both research and teaching, and it is expected that the successful candidates will have at least two years of experience beyond the Ph.D. While outstanding applications from all mathematical research areas may be considered, one position is designated in **mathematical biology**, and one position is in **topology**. Please access math.msu.edu/Hiring in order to complete an online application and to find a description of other required materials. Application materials can be addressed to: Hiring Committee, Department of Mathematics, Michigan State University, East Lansing, MI 48824-1027. Completed applications (including letters of recommendation) received by **November 15, 2006**, are assured of consideration, but applications will be considered until the position is filled. MSU is an affirmative action/equal access/equal opportunity institution. Women and minorities are strongly encouraged to apply.

MICHIGAN TECHNOLOGICAL UNIVERSITY, Department of Mathematical Sciences — Tenure-track Position in Algebra with Applications to Combinatorics — Candidates are invited to apply for a tenure-track assistant professorship in Algebra with applications to Combinatorics. Applications to Cryptography are of particular interest. The Department of Mathematical Sciences has a strong group in discrete mathematics, with expertise in coding and design theory, and offers BS, MS, and PhD programs. Faculty are expected to develop a research program, seek external funding, and provide excellent teaching. Teaching loads are very competitive. The position starts 21 August 2007, and candidates must complete all requirements for the PhD in Mathematics or a related field by that date. Review of applications will begin **1 January 2007** and continue until the position is filled. Interested candidates should send a vita and three letters of recommendation to: Search Committee, Algebra Position, Department of Mathematical Sciences, Michigan Technological University, 1400 Townsend Drive, Houghton, MI 49931-1295. Michigan Technological University is an equal opportunity educational institution/equal opportunity employer/affirmative action employer.

MICHIGAN TECHNOLOGICAL UNIVERSITY, Department of Mathematical Sciences — Tenure-track Position in Statistics and Probability — Candidates are invited to apply for a tenure-track assistant professorship in Statistics and Probability. Areas of particular interest are Biostatistics, Survival Analysis, Computational Statistics, and Applied Probability. The Department of Mathematical Sciences has 7 statistics faculty and offers BS, MS, and PhD programs in statistics. Faculty are expected to develop a research program, seek external funding, and provide excellent teaching. Teaching loads are very competitive. The position starts 21 August 2007, and candidates must complete all requirements for the PhD in Statistics, Mathematics, or a related field by that date. Review of applications will begin 1 January 2007 and continue until the position is filled. Interested candidates should send a vita and three letters of recommendation to: Search Committee, Statistics and Probability Position, Department of Mathematical Sciences, Michigan Technological University, 1400 Townsend Drive, Houghton, MI 49931-1295. Michigan Technological University is an equal opportunity educational institution/equal opportunity employer/affirmative action employer.

MICHIGAN TECHNOLOGICAL UNIVERSITY, Department of Mathematical Sciences — Developmental Mathematics Specialist — Candidates are invited to apply for the position of Lecturer and Developmental Mathematics Specialist, starting 20 August 2007. Applicants must have a Master's or Ph.D. degree in the Mathematical Sciences or Mathematics Education. Applicants must have excellent teaching credentials, and preference will be given to candidates who have experience teaching developmental math at the high school or university level. Duties include overseeing all aspects of the Developmental Mathematics Program and a Quantitative Literacy course; assisting with the training and supervision of teaching assistant, and teaching developmental mathematics and more advanced courses, such as Calculus. The teaching load is three courses per semester. Interested candidates should send a vitae, a description of teaching methods and objectives, and three letters of recommendation to: Search Committee, Developmental Mathematics Specialist, Department of Mathematical Sciences, Michigan Technological University, 1400 Townsend Drive, Houghton, MI 49931-1295. Review of applications will begin **1 February 2007** and continue until the position is filled. Michigan Technological University is an Equal Opportunity Educational Institution/Equal Opportunity Employer/Affirmative Action Employer.

MICHIGAN TECHNOLOGICAL UNIVERSITY, Department of Mathematical Sciences — Director of First-Year Mathematics - Applications are invited for the position of Lecturer and Director of First-Year Mathematics, starting 20 August 2007. This individual directs the First-Year Mathematics Program as well as the MaCH-I summer program for incoming first-year students. The Lecturer position is a nine-month appointment, and the Director receives an additional two months of summer salary for directing MaCH-I. Duties for this position include shared responsibility for all first-year courses, placement and retention of students in mathematics courses, training and supervision of teaching assistants, development of summer programs, and teaching at the first-year level and beyond. The teaching load is two courses per semester. We seek a dynamic individual who can work well with students, faculty, and administrators. Applicants should have at least a Master's degree in mathematics or mathematics education and have excellent teaching credentials. Candidates with a Ph.D. are encouraged to apply. Interested candidates should send a vitae and three letters of recommendation to: Search Committee, Director of First-Year Mathematics, Department of Mathematical Sciences, Michigan Technological University, 1400 Townsend Drive, Houghton, MI 49931-1295. Review of applications will begin **1 February 2007** and continue until the position is filled. Michigan Technological University is an Equal Opportunity Educational Institution/Equal Opportunity Employer/Affirmative Action Employer.

MILLERSVILLE UNIVERSITY OF PENNSYLVANIA — Full-time, tenure-track assistant professorship to begin August 2007. Area of expertise in MATHEMATICS EDUCATION. The department, consisting of 20 faculty members and approximately 220 undergraduate majors, offers B.A. and B.S. degrees in mathematics and B.S.Ed. and M.Ed. degrees in mathematics education. Duties include an annual 24-hour teaching load, including mathematics courses for pre-service elementary and secondary teachers and a variety of undergraduate mathematics service courses, scholarly activity, student advisement, curriculum development in mathematics education at both the undergraduate and graduate levels and committee work. This position may include supervision of secondary student teachers. Doctorate (or completion by time of reappointment to the second year) in mathematics education or in mathematics with a specialization in mathematics education is required, including broad training in mathematics with at least 24 hours of graduate level courses in pure or applied mathematics. Must exhibit evidence of strong commitment to excellence in teaching and continued scholarly activity, and have familiarity with current directions in mathematics education, including technology. Must complete a successful interview and teaching demonstration. Evidence of teaching effectiveness is a primary consideration. Preference will be given to candidates with experience teaching both 7-12 and college-level mathematics. Salary/benefits are competitive. Send application letter, vita, copies of undergraduate and graduate transcripts and three letters of reference (**at least two of which attest to recent teaching effectiveness**) to Dr. Janet A. White, Search Committee/ **AWM1106**, Department of Mathematics, Millersville University of Pennsylvania, P.O. Box 1002, Millersville, PA 17551-0302. Completed application must be received by **January 10, 2007** to assure full consideration. An EO/AA Institution. E-mail applications will not be accepted.

NORTH CAROLINA STATE UNIVERSITY, Department of Mathematics — Applications are invited for one tenure track assistant professorship in the area of partial differential equations beginning Fall 2007. Candidates must have a PhD in the mathematical sciences, an outstanding research program, a commitment to effective teaching at the undergraduate and graduate levels and demonstrated potential for excellence in both research and teaching. The Department of Mathematics has strong research programs in both pure and applied mathematics. Many members of the department participate in interdisciplinary programs and research groups on campus and in the broader Research Triangle community. More information about the department can be found at <http://math.ncsu.edu>. To submit your application go to www.mathjobs.org/jobs/ncsu. Applicants are strongly advised to submit their materials electronically at this site. If you do not have computer access, you may mail your application to PDE Search Committee, Department of Mathematics, NC State University, Box 8205, Raleigh, NC 27695-8205, and should include a vita, at least three letters of recommendation, and a description of current and planned research. Write to math-jobs@math.ncsu.edu for questions concerning this position. NC State University is an Equal Opportunity and Affirmative Action Employer. In addition, NC State welcomes all persons without regard to sexual orientation. ADA Accommodations: Dr. Aloysius Helminck, (919) 515-2382. Applications received by **December 15, 2006** will be given priority.

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NORTH CAROLINA STATE UNIVERSITY, Department of Mathematics — Applications are invited for one tenure track assistant professorship beginning Fall 2007. We are seeking an exceptionally well-qualified individual with research interests compatible with those in the department. All areas of pure and applied mathematics will be considered. Candidates must have a PhD in the mathematical sciences, an outstanding research program, a commitment to effective teaching at the undergraduate and graduate levels and demonstrated potential for excellence in both research and teaching. She or he will likely have had successful post-doctoral experience. The Department of Mathematics has strong research programs in both pure and applied mathematics. Many members of the department participate in interdisciplinary programs and research groups on campus and in the broader Research Triangle community. More information about the department can be found at <http://www.math.ncsu.edu>. To submit your application go to www.mathjobs.org/jobs/ncsu. Applicants are strongly advised to submit their materials electronically at this site. If you do not have computer access, you may mail your application to: Mathematics Search Committee, Department of Mathematics, NC State University, Box 8205, Raleigh, NC 27695-8205, and should include a vita, at least three letters of recommendation, and a description of current and planned research. Write to math-jobs@math.ncsu.edu for questions concerning this position. NC State University is an Equal Opportunity and Affirmative Action Employer. In addition, NC State welcomes all persons without regard to sexual orientation. ADA Accommodations: Dr. Aloysius Helminck, (919) 515-2382. Applications received by **December 15, 2006** will be given priority.

NORTHEASTERN UNIVERSITY, Boston, Massachusetts — Stone Professorship in Mathematics — We invite applications for the Stone Professorship to begin in September of 2007. This is a tenured position, at the Associate or Full Professor level, and will retain the title “Stone Professor” for two years. Candidates should be leading figures in their area of mathematical expertise and have a demonstrated record of excellent teaching. All areas of mathematics will be considered, but the Department has particular needs in applied/computational areas such as statistics, numerical analysis, and combinatorics. Candidates must have experience in, or a demonstrated commitment to, working with diverse student populations and/or in a culturally diverse work environment. Applications, including a curriculum vitae, a brief statement of current research plans and teaching interests, and a completed AMS standard cover sheet, should be sent to the following address: Chair, Department of Mathematics, Northeastern University, 567 Lake Hall, Boston, MA 02115, USA. Applicants should also submit the names of four or more individuals who would agree to evaluate their research accomplishments, upon request by the Department. The selection process will begin November 15, 2006. Northeastern University is an Equal Opportunity/Affirmative Action, Title IX, educational institution and employer. We particularly welcome applications from diverse candidates including women and persons with disabilities.

PURDUE UNIVERSITY, DEPARTMENT OF MATHEMATICS — Applications are invited for tenure-track Assistant Professor appointments, or three-year Visiting Assistant Professor (Research Assistant Professor) appointments, beginning August 2007. Ph.D. by August 13, 2007, exceptional research promise, and strong teaching record are required. Applications will also be accepted for possible appointments at the Associate Professor/Professor level. Ph.D. and excellence in research and teaching are required. Outstanding applicants from various mathematical research areas will be considered. Because the department has several openings in applied mathematics, candidates who have significant research accomplishments in applied mathematics or computational applied mathematics are especially encouraged to apply. All applicants should have research interests in common with Purdue faculty. Send vita, summary of research interests/plans, and arrange for three letters of recommendation (one addressing teaching) to be sent to: Head, Department of Mathematics Purdue University, 150 N. University St., West Lafayette, IN 47907-2067. Review of applications will begin November 1, 2006 and continue until available positions are filled. Offers for tenured and tenure-track positions may be made at any time; some offers for Visiting Assistant Professor (Research Assistant Professor) positions will be made before the end of January 2007. The Mathematics Department is participating in the development of several interdisciplinary research clusters at Purdue. Please refer to <http://www.science.purdue.edu/COALESCE/> for details about these positions and application procedures. Purdue University is an Affirmative Action/Equal Access/Equal Opportunity Employer.

PURDUE UNIVERSITY, DEPARTMENT OF STATISTICS — Faculty Positions in Statistics — The Department of Statistics at Purdue University invites applications for tenure-track positions beginning August 2007. A number of positions are available at the Assistant Professor level; senior positions will be considered for highly qualified applicants. Applications from outstanding candidates in all areas of statistics will be considered. Of particular interest to the Department are candidates with a research record in the areas of high dimensional data. Also, the area of bioinformatics and the area of spatial statistics are part of a College of Science-wide hiring effort, COALESCE, and applicants in these areas should address the multidisciplinary contributions of their work in their research statements. The Department of Statistics offers a stimulating and nurturing academic environment. More than thirty tenured and tenure-track faculty members direct research programs in a broad range of areas. Further information about the department is available at: <http://www.stat.purdue.edu>. Information about the College of Science multidisciplinary hiring effort and its targeted areas can be found at: <http://www.stat.purdue.edu>. All applicants should hold a PhD in Statistics, or a related field, be committed to excellence in teaching, and have demonstrated strong potential for excellence in research. Salary and benefits are highly competitive. Please visit: <https://applications.science.purdue.edu/statistics/> to apply online or to see where hard copy application documents can be sent. Applicants matching one search may be considered in other relevant searches when appropriate. Review of applications will begin on December 1, 2006, and will continue until the positions are filled. Purdue University is an Equal Opportunity/Equal Access/Affirmative Action employer and is committed to building a diverse faculty of excellence.

SOUTHERN ILLINOIS UNIVERSITY, CARBONDALE, DEPARTMENT OF MATHEMATICS — Algebra/Number Theory Position — Applications are invited for a tenure-track position in algebra/number theory at the rank of assistant professor to begin on August 16, 2007. Applicants from all areas of pure and applied algebra and number theory will be considered. Applicants must demonstrate evidence of, or potential for, excellence in research in an area of algebra or number theory, and in teaching at both undergraduate and graduate levels. Ph.D. in mathematics required by August 15, 2007. Postdoctoral experienced preferred. The applicant hired into this position will be expected to teach effectively, to maintain a vigorous research program, to seek external research funding, and to develop a satisfactory record of service. To apply, please send letter of application and CV, and have three letters of recommendation send, to: Algebra/Number Theory Position, Department of Mathematics, Mail Code 4408, Southern Illinois University Carbondale, 1245 Lincoln Drive, Carbondale, Illinois 62091. Review of applications will begin November 27, 2006, and continue until position is filled. SIUC is an affirmative action/equal opportunity employer that strives to enhance its ability to develop a diverse faculty and staff and to increase its potential to serve a diverse student population. All applicants are welcomed and encouraged and will receive consideration.

SOUTHWESTERN UNIVERSITY, MATHEMATICS AND COMPUTER SCIENCE DEPARTMENT — The Mathematics and Computer Science Department at Southwestern University seeks applicants for a tenure-track position beginning August 2007. Candidates must possess a Ph.D. in Mathematics or Statistics, a commitment to excellence in undergraduate teaching, and an active interest in scholarly pursuits. For information concerning the Mathematics and Computer Science Department, visit our Web site at <http://buzz.southwestern.edu>. Southwestern University is a selective, undergraduate institution committed to a broad-based liberal arts, sciences and fine arts education. Southwestern currently enrolls approximately 1,250 students and maintains a student to faculty ratio of 10 to 1. The University's endowment ranks among the highest per

student of undergraduate institutions in the country. In addition to a number of other national organizations, Southwestern University is a member of two consortia of premier liberal arts colleges, the Associated Colleges of the South and the Annapolis Group. Affiliated with The United Methodist Church, Southwestern University is located in historic Georgetown, Texas, in the heart of the Texas hill country, and is 28 miles north of Austin. Southwestern University is committed to fostering a diverse educational environment and encourages applications from members of groups traditionally under-represented in academia. For information concerning the University, visit our Web site at www.southwestern.edu. **For full consideration, all materials must be received by December 15, 2006, but applications will be accepted until the position is filled.** Applicants should send a current vita, cover letter, evidence of teaching effectiveness (e.g., syllabi, teaching evaluations, etc.), and three current letters of reference to: Connie Imhof, Faculty Secretary, Mathematics Search, Southwestern University, P.O. Box 770, Georgetown, Texas, 78627-0770. Southwestern University is an Equal Opportunity Employer. EOE/M/F.

TEXAS A&M UNIVERSITY — QATAR, The Department of Mathematics — The Department of Mathematics expects to have two or more open positions at Texas A&M University's branch campus in Doha, State of Qatar. Texas A&M University at Qatar (TAMUQ) is a partnership with Qatar Foundation. Now entering its fourth year of operation, TAMUQ offers Bachelor of Science degrees in Chemical, Electrical and Computer, Mechanical, and Petroleum Engineering. The degree programs are identical to those of the main campus at College Station, Texas. A Texas A&M University diploma is awarded to graduates. A new, state-of-the-art engineering building for teaching and research will open in 2007. General information about TAMUQ is available at their web site <http://www.qatar.tamu.edu/>. The Mathematics faculty provides classes in calculus, differential equations, linear algebra, numerical methods, mathematical modeling and other related coursework, all of which form an integral part of the engineering curricula. Teaching loads are kept low (approximately two small classes per academic year) to promote teacher-student mentoring and to allow time for faculty to pursue research. Any level of appointment will be considered depending on the qualifications of the applicant. It is anticipated that most appointments will be non-tenure accruing, with an initial appointment period of one year, which is renewable for additional years, subject to satisfactory performance. A Ph.D. degree is required for all professorial level appointments (the equivalent of an assistant professor or higher). Applicants with a masters degree and teaching experience will be considered for non-professorial positions (e.g. lecturer) for more elementary instruction (and a higher teaching load). Salary rates are competitive and, in general, average 30% higher than comparable salary rates of similar positions in the US. In addition, summer funding is guaranteed. Liberal allowances for professional travel and for relocation to Qatar are provided. Fringe benefits include free furnished housing in one of several gated communities, K-12 education for dependents, group health insurance, annual leave allowance, and a car allowance. Applicants should send the completed "AMS Application Cover Sheet," a vita, and arrange to have at least three letters of recommendation sent to: TAMU-Qatar-Faculty Hiring, Department of Mathematics, Texas A&M University, College Station, Texas 77843-3368. Further information and a link to our on-line application form is available at <http://www.math.tamu.edu>. At least one recommendation letter should address the candidate's teaching qualifications. The complete dossier should be received by **January 15, 2007**. Early applications are encouraged since applications will be reviewed as they are received. Texas A&M University is an equal opportunity employer. The University is dedicated to the goal of building a culturally diverse and pluralistic faculty and staff committed to teaching and working in a multicultural environment and strongly encourages applications from women, minorities, individuals with disabilities, and veterans. The University is responsive to the needs of dual career couples.

TUFTS UNIVERSITY, DEPARTMENT OF MATHEMATICS — Assistant Professorship (3 year) Probability — Applications are invited for a non-tenure-track Assistant Professorship to begin September 1, 2007. Initial one-year contract, renewable to a maximum of three years. Applicants must show promise of excellent teaching, as well as of outstanding research in the area of Probability. Teaching load will be two courses per semester. Preference will be given to candidates who show potential for interaction with existing probability interests in the department, including stochastic processes, stochastic analysis, and mathematical finance. Through <http://www.mathjobs.org>, applicants should electronically submit a cover letter, curriculum vitae, research description and teaching statement. In addition, applicants should arrange for 3 letters of recommendation to be submitted electronically by the reviewer through <http://www.mathjobs.org>. If a reviewer cannot submit online, we will accept signed PDF attachments mailed to Marjorie.Hahn@tufts.edu or paper letters mailed to Probability Search Committee Chair, Department of Mathematics, Bromfield-Pearson Hall, Tufts University, Medford, MA 02155. Review of applications begins on January 15, 2007 and continues until the position is filled. Tufts University is an Affirmative Action / Equal Opportunity employer. We are committed to increasing the diversity of our faculty. Members of underrepresented groups are strongly encouraged to apply.

TUFTS UNIVERSITY, DEPARTMENT OF MATHEMATICS — Tenure-Track Assistant Professorship, Computational Partial Differential Equations — Applications are invited for a tenure-track Assistant Professorship to begin September 1, 2007. Applicants must show promise of outstanding research in the area of Computational Partial Differential Equations, as well as excellent teaching. The teaching load will be two courses per semester. Preference will be given to candidates who show potential for interaction with existing applied mathematics research efforts in the department, including computational neuroscience, numerical linear algebra, computational fluid dynamics, and inverse problems. Applications should include a cover letter, curriculum vitae, a research statement and a teaching statement. All of these documents should be submitted electronically through <http://www.mathjobs.org>. In addition, applicants should arrange for three letters of recommendation to be submitted electronically on their behalf through <http://www.mathjobs.org>. If a recommender cannot submit online, we will also accept signed PDF attachments sent to Misha.Kilmer@tufts.edu or paper letters mailed to CPDE Search Committee Chair, Department of Mathematics, Bromfield-Pearson Hall, Tufts University, Medford, MA 02155. Review of applications will begin on Dec. 15, 2006 and will continue until the position is filled. Tufts University is an Affirmative Action / Equal Opportunity employer. We are committed to increasing the diversity of our faculty. Members of underrepresented groups are strongly encouraged to apply.

TUFTS UNIVERSITY, DEPARTMENT OF MATHEMATICS — Assistant Professorship (3 year, non-tenure-track) Algebraic Groups — Applications are invited for a non-tenure-track Assistant Professorship to begin September 1, 2007. The position has an initial one-year contract, and is renewable to a maximum of three years. The teaching load is two courses per semester. Applicants must show promise of excellent teaching, as well as of outstanding research in the area of Algebraic Groups. The preferred candidate will show potential for research and interaction with existing faculty in one of the following areas of study: the structure and representations of reductive groups, their Lie algebras, and related finite groups; the structure of a reductive group over a ground field; Galois cohomological invariants; the representations of p-adic groups; and geometric representation theory. An applicant should electronically submit a cover letter, curriculum vitae, research description and teaching statement through <http://www.mathjobs.org>; moreover, three letters of recommendation should be submitted electronically on behalf of the applicant, also through <http://www.mathjobs.org>. If a recommender cannot submit online, signed PDF attachments sent to george.mcninch@tufts.edu or paper letters mailed to Algebraic Groups Search Committee Chair, Department of Mathematics, Bromfield-Pearson Hall, Tufts University, Medford, MA 02155 will be accepted. Review of applications will begin on January 15, 2007 and will continue until the position is filled. Tufts University is an Affirmative Action / Equal Opportunity employer. Tufts is committed to increasing the diversity of its faculty; members of underrepresented groups are strongly encouraged to apply.

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UNIVERSITY OF CONNECTICUT, DEPARTMENT OF MATHEMATICS — Assistant Professor — The Department of Mathematics at the University of Connecticut announces the availability of a tenure track Assistant Professor position at the Avery Point regional campus starting in August 2007. Located on the shore of Long Island Sound, UConn Avery Point serves as the University's campus by the sea. The campus hosts the extensive research and graduate/undergraduate teaching programs of its outstanding marine science department. The campus also offers undergraduate degree programs in coastal, maritime, and american studies complemented by masters and doctoral programs in oceanography and a full complement of general education courses. The department and campus seek an applied mathematician with a Ph.D. in mathematics, or closely related area, and demonstrated research experience and capability in the numerical solution of partial differential equations. Candidates with interests in the areas of mathematical modeling in meteorology, oceanography, fluid dynamics, marine ecology, or optimization problems in data assimilation will be preferred. The successful candidate will be expected to teach mathematics courses at the undergraduate and graduate levels. The successful candidate will also be expected to develop a vigorous externally-funded research program, preferably while working in collaboration with appropriate marine science and/or mathematics colleagues. Integration with the graduate programs in the marine science and mathematics departments will also be encouraged. The review of applications will begin January 1, 2007. Please submit a comprehensive CV, a letter describing your scholarly goals, research plans, teaching experience and philosophy, and arrange for four letters of reference to be submitted on your behalf. We prefer that applications be submitted online at <http://www.mathjobs.org>. Applicants may also choose to send resume and letters of recommendation to: Professor P. Joseph McKenna, University of Connecticut, Department of Mathematics, U-3009, 196 Auditorium Road Storrs, CT 06269. The University of Connecticut is an Equal Opportunity and Affirmative Action Employer. We encourage applications from underrepresented groups, including minorities, women and people with disabilities. For more information about the position or institution/company: <http://www.math.uconn.edu>.

UNIVERSITY OF CONNECTICUT, DEPARTMENT OF MATHEMATICS — Assistant Professor with Special Responsibilities in Actuarial Science — The Department of Mathematics anticipates an opening for a tenure-track position at the Assistant Professor level starting Fall 2007 with special responsibilities in Actuarial Science. These responsibilities normally include teaching two actuarial related courses each semester, assisting with program administration, and conducting research. An appointment at higher levels is possible in exceptional cases. The Department has a strong actuarial program, awarding Bachelor's, Master's, and Ph.D. degrees. Qualifications to be considered include: excellence in teaching, a Ph.D. in the Mathematical Sciences or Actuarial Science, membership in one of the actuarial societies, an active research program, and industry experience. Salary is commensurate with experience. Review of applications will begin January 1, 2007 and continue until the position is filled. We prefer that applications be submitted online at <http://www.mathjobs.org>. Applicants may also choose to send resume and at least three letters of recommendation to: Actuarial Hiring Committee, University of Connecticut, Department of Mathematics, U-3009, 196 Auditorium Road, Storrs, CT 06269. The University of Connecticut is an Equal Opportunity and Affirmative Action Employer. We encourage applications from underrepresented groups, including minorities, women and people with disabilities. For more information about the position or institution/company: <http://www.math.uconn.edu>.

UNIVERSITY OF CONNECTICUT, DEPARTMENT OF MATHEMATICS — Assistant Professor — The Department of Mathematics anticipates openings for two tenure-track positions at the Assistant Professor level starting Fall 2007. An appointment at higher levels is possible in exceptional cases. Candidates must have a Ph.D. and demonstrate evidence of excellent teaching ability and outstanding research potential. We seek to hire primarily in the areas of Probability and Applied and Computation Mathematics. In the area of Applied Computational Mathematics preference will be given to candidates whose research interests lie in Numerical PDE's, and/or Optimization, and/or Wavelets. Review of applications will begin November 15, 2006 and continue until the position is filled. We prefer that applications be submitted online at . Applicants may also choose to send resume and at least three letters of recommendation to: Hiring Committee, University of Connecticut, Department of Mathematics, U-3009, 196 Auditorium Road, Storrs, CT 06269. The University of Connecticut is an Equal Opportunity and Affirmative Action Employer. We enthusiastically encourage applications from underrepresented groups, including minorities, women and people with disabilities. For more information about the position or institution/company: ..

UNIVERSITY OF CONNECTICUT, DEPARTMENT OF MATHEMATICS — Postdoctoral Fellow — The Department of Mathematics anticipates openings for Postdoctoral Fellow positions beginning in Fall, 2007. Candidates must have received a Ph.D. within the last four years and demonstrate evidence of excellent teaching ability and outstanding research potential. The positions are for a maximum of three years. Postdoctoral Fellows normally teach two courses a semester and are expected to participate in the research activities of the department. Preference will be given to candidates whose research interests intersect those of the permanent faculty. The review of applications will begin January 1, 2007. We prefer that applications be submitted online at <http://www.mathjobs.org>. Applicants may also choose to send resume and at least three letters of recommendation to: Postdoctoral Hiring Committee, University of Connecticut, Department of Mathematics, U-3009 196 Auditorium Road, Storrs, CT 06269. The University of Connecticut is an Equal Opportunity and Affirmative Action Employer. We encourage applications from underrepresented groups, including minorities, women and people with disabilities. Deadline for Applications: **March 31, 2007**. For more information about the position or institution/company: <http://www.math.uconn.edu>.

UNIVERSITY OF DAYTON — Applications are invited for a tenure track position in the Department of Mathematics at the assistant professor level starting in August 2007. The position focuses on numerical analysis or computational partial differential equations. Candidates must have a Ph.D. in mathematics. Candidates must have a commitment to teaching, advisement, curriculum development, and research supervision at both the undergraduate and graduate levels. The successful candidate will be expected to develop an ongoing research agenda. The candidate will have opportunities to support computational mathematics in a new master's program in financial mathematics and in a traditional master's program in applied mathematics; the candidate will be encouraged to support research efforts initiated in the School of Engineering. To receive full consideration, all materials must be received by January 12, 2007. A complete application consists of a resume, three letters of recommendation, a statement of research and professional plans, a statement of teaching philosophy, and a graduate transcript. Both teaching abilities and research abilities should be addressed in the letters of recommendation. Please include an e-mail address in your correspondence. Send applications to: Dr. Robert Gorton, Chair of the Computational Mathematics Search Committee, Department of Mathematics, University of Dayton, Dayton, OH 45469-2316. Contact the search committee at Robert.Gorton@notes.udayton.edu. For further information, see <http://www.udayton.edu/~mathdept>. The University of Dayton is a private comprehensive Catholic university founded by the Society of Mary in 1850. It has more than 6000 undergraduate and 3000 graduate students. The Department of Mathematics offers baccalaureate degrees in mathematics and applied mathematical economics, and master's degrees in applied mathematics, financial mathematics, and mathematics education. The University of Dayton is an Equal Opportunity/Affirmative Action employer. Women, minorities, individuals with disabilities, and veterans are encouraged to apply. The University of Dayton is firmly committed to the principle of diversity.

UNIVERSITY OF DAYTON — Applications are invited for a tenure track position in the Department of Mathematics at the assistant professor level starting in August 2007. The position focuses on mathematics education. Candidates must have a Ph.D. in mathematics education with a master's degree in mathematics or a Ph.D. in mathematics. Candidates must have a commitment to teaching, advisement, curriculum development, and research supervision at both the undergraduate and graduate levels. The successful candidate will be expected to develop an ongoing professional/research agenda, support outreach programs in cooperation with departmental colleagues and the School of Education, and support a new master's program in mathematics education. Further responsibilities include teaching responsibilities in an undergraduate liberal arts and sciences program. To receive full consideration, all materials must be received by January 12, 2007. A complete application consists of a resume, three letters of recommendation, a statement of research and professional plans, a statement of teaching philosophy, and a graduate transcript. Both teaching abilities and research abilities should be addressed in the letters of recommendation. Please include an e-mail address in your correspondence. Send applications to: Dr. Robert Gorton, Chair of the Mathematics Education Search Committee, Department of Mathematics, University of Dayton, Dayton, OH 45469-2316. Contact the search committee at Robert.Gorton@notes.udayton.edu. For further information, see <http://www.udayton.edu/~mathdept>. The University of Dayton is a private comprehensive Catholic university founded by the Society of Mary in 1850. It has more than 6000 undergraduate and 3000 graduate students. The Department of Mathematics offers baccalaureate degrees in mathematics and applied mathematical economics, and master's degrees in applied mathematics, financial mathematics, and mathematics education. The University of Dayton is an Equal Opportunity/Affirmative Action employer. Women, minorities, individuals with disabilities, and veterans are encouraged to apply. The University of Dayton is firmly committed to the principle of diversity.

UNIVERSITY OF LOUISVILLE, DEPARTMENT OF MATHEMATICS — Assistant Professor — Applied Mathematics (Bioinformatics) — The Department of Mathematics at the University of Louisville invites applications for a tenure-track Assistant Professor beginning Fall 2007 in Applied Mathematics with special interests in bioinformatics, mathematical biology or related fields. The ideal candidate will have a demonstrated record of excellence in research and teaching as well as experience with extramural funding. The minimum qualifications for this position include a Ph.D. degree, or its equivalent, in the Mathematical Sciences. The expectations include that the successful applicant will contribute fully to both undergraduate and graduate instruction and research, attract extramural funding and conduct interdisciplinary work with researchers from other departments. Applicants must apply on-line at www.louisville.edu/jobs, reference Job ID # 20654 and submit (1) a cover letter that clearly indicates the position name or the job ID number, summary of research interest and statement of teaching interests; and (2) the AMS Standard Coversheet; and (3) a curriculum vitae. Please indicate whether you are going to attend the AMS annual joint meeting in New Orleans in your cover letter submitted on-line. Also, please mail directly at least four letters of recommendation which discuss at length your research and teaching qualifications to: Search Committee (Bioinformatics) (JOB ID #20654), Department of Mathematics, University of Louisville, Louisville, KY 40292. The typical teaching load in the Department of Mathematics is two courses per semester. Review of applications will begin December 15, 2006 and continue until the position is filled. The University of Louisville is an Affirmative Action, Equal Opportunity, Americans with Disabilities Employer, committed to diversity and in that spirit, seeks applications from a broad variety of candidates.

UNIVERSITY OF LOUISVILLE, DEPARTMENT OF MATHEMATICS — Assistant Professor — Applied Mathematics (Logistics) — The Department of Mathematics at the University of Louisville invites applications for an Applied Mathematician in the area of combinatorial optimization, logistics, or operations research, for a new tenure-track position at the Assistant Professor level beginning Fall 2007. The ideal candidate will have a demonstrated record of excellence in research and teaching as well as experience with extramural funding. The minimum qualifications for this position include a Ph.D. degree, or its equivalent, in the Mathematical Sciences. The expectations include that the successful applicant will contribute fully to both undergraduate and graduate instruction and research, attract extramural funding and conduct interdisciplinary work with researchers from other departments including those from the (LoDI). The Institute is an interdepartmental effort with components located in the College of Arts and Sciences, the College of Business, and the J. B. Speed Scientific School (the school of engineering and applied sciences). Applicants must apply on-line at www.louisville.edu/jobs, reference JOB ID # 20628 and submit the following items electronically as well as a hardcopy: (1) a cover letter that clearly indicates the position name or the job ID number, summary of research interest and statement of teaching interests; (2) the AMS Standard Coversheet; and (3) a curriculum vitae. Please indicate whether you are going to attend the AMS annual joint meeting in New Orleans in your cover letter submitted on-line. Also, please mail directly at least four letters of recommendation which discuss at length your research and teaching qualifications to: Search Committee (Logistics) (JOB ID # 20628), Department of Mathematics, University of Louisville, Louisville, KY 40292. Review of applications will begin December 15, 2006, and continue until the position is filled. The University of Louisville is an Affirmative Action, Equal Opportunity, Americans with Disabilities Employer, committed to diversity and in that spirit, seeks applications from a broad variety of candidates.

UNIVERSITY OF LOUISVILLE, DEPARTMENT OF MATHEMATICS — Assistant Professor in Mathematics — The Department of Mathematics at the University of Louisville invites applications for a tenure-track Assistant Professor beginning Fall 2007. Minimum qualifications for this position include a Ph.D. degree, or its equivalent, in the Mathematical Sciences and promise of excellence in research and teaching. Preference will be given to applicants who strengthen the department's new Ph.D. program in applied mathematics and who complement the existing strengths in the department (www.math.louisville.edu). Applicants with interest or experience in teaching mathematics for elementary and middle-school teachers are especially encouraged to apply. Applicants must apply on-line at www.louisville.edu/jobs, reference Job ID # 20627 and submit the following items electronically as well as a hardcopy: (1) cover letter that clearly indicates the position name or the job ID number, summary of research interest and statement of teaching interests; (2) the AMS Standard Coversheet; and (3) curriculum vitae. Please indicate whether you are going to attend the AMS annual joint meeting in New Orleans in your cover letter submitted on-line. Also, please mail directly at least four letters of recommendation which discuss at length your research and teaching qualifications to: Search Committee (tenure-track search) (JOB ID # 20627) Department of Mathematics, University of Louisville, Louisville, KY 40292. The typical teaching load in the Department of Mathematics is two courses per semester. Review of applications will begin December 15, 2006, and continue until the position is filled. The University of Louisville is an Affirmative Action, Equal Opportunity, Americans with Disabilities Employer, committed to diversity and in that spirit, seeks applications from a broad variety of candidates.

UNIVERSITY OF NEBRASKA, Department of Mathematics — Applications are invited for two tenure-track and two postdoctoral positions in mathematics, starting in August, 2007, as follows: 1. One tenure-track assistant professor position in coding theory or combinatorics or a related area. (Requisition #060755); 2. One tenure-track open rank position in mathematics with emphasis in Teacher Education. (Requisition #060770); 3. Two three-year (non tenure-track) Research Assistant Professor positions in mathematics. (Requisition #060746). For all positions, use of the AMS application cover sheet is encouraged. First review of applications will begin on December 8, 2006. Successful candidates for each position should have a Ph.D. in mathematics and outstanding potential for research and teaching in mathematics. Applicants should submit a letter of application, a CV, statements addressing their research and teaching, and at least three letters of reference, at least one of which should address teaching, to: Search Committee Chair (position description), Department of Mathematics, University of Nebraska-Lincoln, Lincoln, NE 68588-0130. To be considered for the position, applicants must complete the Faculty/Administrative Information Form at <http://employment.unl.edu>, (appropriate requisition #). For more information see the Department's web site: www.math.unl.edu. The University of Nebraska is committed to a pluralistic campus community through affirmative action and equal opportunity and is responsive to the needs of dual career couples. We assure reasonable accommodation under the Americans with Disabilities Act; contact Marilyn Johnson at (402) 472-8822 for assistance.

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UNIVERSITY OF NOTRE DAME, DEPARTMENT OF MATHEMATICS, NOTRE DAME, IN 46556 — Notre Dame NSF-SUMR Instructorship in Mathematics — The Department of Mathematics of the University of Notre Dame invites applications from recent doctorates (since 2004) for the position of Notre Dame NSF-SUMR Instructor in Mathematics. Candidates in any specialty compatible with the research interests of the department will be considered. The position is for a term of three years beginning August 22, 2007; it is not renewable and is not tenure track. The teaching load is one course per semester. Additional duties include mentoring of Honors Mathematics majors, and applicants should provide evidence of prior experience teaching undergraduates. The salary will be competitive with those of distinguished instructorships at other AMS Group I universities, and the position includes \$10,000 per year of summer research support for each of the first two summers. The position is associated with the department's recent successful five-year NSF grant in the program "Mentoring Through Critical Transition Points." Applications, including a curriculum vitae, a letter of application, and a completed AMS standard cover sheet, should be sent to William G. Dwyer, Chair, at the above address. Applicants should also arrange for at least three letters of recommendation to be sent to the chair. These letters should address the applicant's research accomplishments and supply evidence that the applicant has the ability to communicate articulately and teach effectively. Notre Dame is an equal opportunity employer, and we particularly welcome applications from women and minority candidates. The evaluation of candidates will begin December 1, 2006. Information about the department is available at <http://math.nd.edu>.

UNIVERSITY OF OKLAHOMA, DEPARTMENT OF MATHEMATICS — Applications are invited for one or more full-time, tenure-track position(s) in mathematics beginning 16 August 2007. The position(s) is initially budgeted at the assistant professor level, but an appointment at the associate professor level may be possible for an exceptional candidate with qualifications and experience appropriate to that rank. Normal duties consist of teaching two courses per semester, conducting research, and rendering service to the Department, University, and profession at a level appropriate to the faculty member's experience. The position(s) requires an earned doctorate and research interests that are compatible with those of the existing faculty; preference will be given to applicants with potential or demonstrated excellence in research and prior successful undergraduate teaching experience. Salary and benefits are competitive. For full consideration, applicants should send a completed AMS cover sheet, curriculum vitae, a description of current and planned research, and have three letters of recommendation (at least one of which must address the applicant's teaching experience and proficiency) sent to: Search Committee, Department of Mathematics, The University of Oklahoma, 601 Elm, PHSC 423, Norman, OK 73019-0315. Phone: 405-325-6711, FAX: 405-325-7484, E-mail: search@math.ou.edu. Screening of applications will begin on December 15, 2006 and will continue until the position(s) is filled. **The University of Oklahoma is an Equal Opportunity/Affirmative Action Employer. Women and Minorities are Encouraged to Apply.**

UNIVERSITY OF OREGON, DEPARTMENT OF MATHEMATICS — The University of Oregon department of mathematics seeks applicants for the Paul Olum Research Assistant Professorship. This is a full-time two-year position and is not tenure-related. Minimum qualifications for this postdoctoral position are a PhD in mathematics, statistics, or closely related field, a strong record of research potential and evidence of teaching ability. Applicants will please provide a standard AMS cover page, CV and three letters of recommendation, all mailed directly to: Paul Olum Search Committee, Department of Mathematics, 1222 University of Oregon, Eugene, Oregon 97403-1222. E-mail applications or letters of reference will not be accepted. Deadline for applications: January 12, 2007. Candidates should have the ability to work effectively with a diverse community. The University of Oregon is an EO/AA/ASA institution committed to cultural diversity.

UNIVERSITY OF OREGON, DEPARTMENT OF MATHEMATICS — The University of Oregon department of mathematics seeks applicants for three full-time tenure-related positions at the rank of Assistant or Associate Professor, in any area of pure or applied mathematics, including statistics and mathematics education. Minimum qualifications are a PhD in mathematics statistics, or closely related field, an outstanding research record and evidence of teaching ability. Applicants will please provide a standard AMS cover page, CV and three letters of recommendation, all mailed directly to: Search Committee, Department of Mathematics, 1222 University of Oregon, Eugene, Oregon, 97403-1222. E-mail applications or letters of reference will not be accepted. Deadline for applications: December 29, 2006. Candidates should have the ability to work effectively with a diverse community. The University of Oregon is an EO/AA/ASA institution committed to cultural diversity.

UNIVERSITY OF PENNSYLVANIA — Junior Positions in Mathematics — Several positions (including possible tenure-track positions) will be available beginning July 1, 2007. 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 the Personnel Committee, Department of Mathematics, University of Pennsylvania, Philadelphia, PA 19104-6395. Applications will be reviewed beginning January 4, 2007. Candidates are encouraged to apply early. The University of Pennsylvania is an equal opportunity, affirmative action employer. Women and minority candidates are encouraged to apply.

UNIVERSITY OF PENNSYLVANIA — Tenure Positions in Mathematics — Commencing July 1, 2007, one or more tenure positions may be available in the following areas (in alphabetical order): algebra, analysis, applied mathematics, discrete mathematics and geometry/topology. Serious candidates must have outstanding, internationally recognized research achievements and be successful teachers of undergraduate and graduate students. Rank and salary will depend upon accomplishment and experience. Write to the Personnel Committee, Department of Mathematics, University of Pennsylvania, Philadelphia, PA 19104-6395. The University of Pennsylvania is an equal opportunity, affirmative action employer. Women and minority candidates are encouraged to apply.

UNIVERSITY OF SOUTHERN CALIFORNIA — The University of Southern California Department of Mathematics expects to have the following positions available for Fall, 2007. Statistics. We seek an outstanding mathematical statistician. Mathematical Finance. We seek an outstanding scholar who can play a leadership role in our nearly ten year old mathematical finance program. The appointments will be made at the rank of associate or full professor. Ph.D. and demonstrated excellence in research and teaching required. **Non-Tenure-Track Assistant Professorships.** The department also anticipates making several 1-3 year non-tenure-track appointments at the assistant professor level in the areas of pure or applied mathematics, or statistics. The department seeks applicants with exceptional promise in research and teaching. Ph.D. required. To apply, please submit the following materials in a single package: letter of application and curriculum vitae, including your e-mail address, telephone and fax numbers, preferably with the standardized AMS Cover Sheet. Candidates should also arrange for three letters of recommendation to be sent as well. All materials should be mailed to: Search Committee, Department of Mathematics, College of Letters Arts and Sciences, University of Southern California, 3620 Vermont Avenue, KAP 108, Los Angeles, CA 90089-2532. Review of applications will begin November 15, 2006 and continue until the positions are filled. Additional information about the USC College Department of Mathematics can be found at our web site: <http://mathinfo.usc.edu>. USC is an Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF TENNESSEE AT KNOXVILLE — The Mathematics Department at The University of Tennessee at Knoxville seeks to fill a postdoctoral position in any of the following fields: applied mathematics, computational mathematics, geometry, topology, probability, or differential equations. Candidates should have had their PhDs for no more than four years by September, 2006. Primary consideration will be given to candidates whose interests overlap with existing faculty. The position is for three years and may not be extended. The teaching load for this position will be two courses per semester. The salary will be \$50,000 per year. Evidence of potential for excellence in research and high quality teaching is required. Review of applications will begin January 15 and continue until the position is filled. The University welcomes and honors people of all races, creeds, cultures, and sexual orientations, and values intellectual curiosity, pursuit of knowledge, and academic freedom and integrity. Candidates should submit a curriculum vita, a description of their research accomplishments and plans, and a teaching statement. These documents as well as three letters of recommendation, at least one of which should address teaching, should be mailed to Professor Michael Frazier, Mathematics, University of Tennessee, Knoxville, TN 37996-1300. *The University of Tennessee is an EEO/AA/Title VII/Title IX/Section 504/ADA/ADEA institution in the provision of its education and employment programs and services.*

UNIVERSITY OF TEXAS AT AUSTIN, DEPARTMENT OF MATHEMATICS, AUSTIN, TEXAS 78712 — Expected openings for Fall 2007 include: (a) Instructorships, some that have R.H. Bing Faculty Fellowships attached to them, and (b) possibly two or more positions at the tenure-track/tenure level. (a) 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 18, 2007. Other factors being equal, preference will be given to those whose doctorates were conferred in 2006 or 2007. 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 \$42,000 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 \$49,000, 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 postdoctoral level, so a separate application for such a position is unnecessary. Those wishing to apply for Instructor positions are asked to send a vita and a brief research summary to the above address c/o Instructor Committee. Transmission of the preceding items via the internet (URL: <https://www.ma.utexas.edu/jobs/application>) is encouraged. All 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, 2006. Background check will be conducted on the applicant selected. The University of Texas at Austin is an Affirmative Action/Equal Opportunity Employer.

WESLEYAN UNIVERSITY — The Department of Mathematics and Computer Science at Wesleyan University invites applications for a tenure-track assistant professorship in mathematics to begin in the academic year 2007-2008. Candidates must possess, or be close to completing, a Ph.D. or equivalent degree, and must have strong records in both research and teaching. We seek candidates with expertise in algebraic geometry, and are particularly interested in candidates whose research interests will enable interaction with our current faculty. Teaching duties will be two courses per semester, ranging from introductory to doctoral-level courses. Wesleyan University is an Equal Opportunity, Affirmative Action Employer. Women and minorities are encouraged to apply. For full consideration applications must be received by November 15, 2006 and include a cover letter, curriculum vitae, research statement, teaching statement and at least four letters of recommendation, including one which evaluates teaching. Applications must be submitted online at mathjobs.org. Other correspondence may be directed to the following addresses: Search Committee, Department of Mathematics and Computer Science, Wesleyan University, Middletown, CT 06459; or e-mail to hireing@math.wesleyan.edu.

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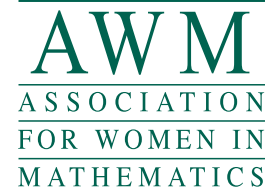
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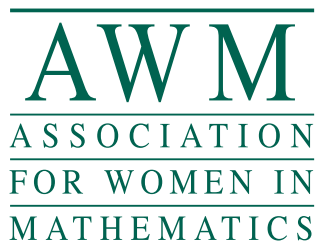
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