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### *In This Issue*

- 2 Cathleen Morawetz Receives National Medal of Science
- 2 MAA Awards From San Antonio
- 3 Secretary's Report
- 4 Contributed Papers for Providence
- 6 1999 Wolf Prize Award Winners
- 10 New Stats Workshop Slated for Hope College

# FOCUS

THE NEWSLETTER OF THE MATHEMATICAL ASSOCIATION OF AMERICA

## **Marcia P. Sward, Executive Director, to Leave MAA at Year's End**

Marcia Sward, who has served in the position of MAA Executive Director since September 1989, informed the MAA's Board of Governors that she will step down at the end of 1999. "It is time for me to move on to new challenges," she said. "I have had wonderful opportunities at the MAA, as well as a variety of programs to deal with. In the remaining year of my directorship, I look for-



*Marcia Sward, MAA Executive Director*

ward to laying the foundation for some new and exciting directions for the MAA of the future."

*Sward continued on page 6*

## **Focus on the Future: A New President Looks Ahead**

*Tom Banchoff*

On the last day of the San Antonio meetings I symbolically crossed out the suffix "-elect" on my name tag as I took on the role of MAA president for the next two years. There is nothing like a national meeting to focus attention on the breadth of our organization, and to indicate challenges and opportunities for the future. I am very happy to share some of my excitement about the years ahead.

One of the comments I heard most often at the national meeting was that there were just too many good things to go to. That's the kind of complaint we like to hear. In those last few days before I assumed office, I was lucky to



*Tom Banchoff, MAA President*

be able to attend sessions and committee meetings that highlighted some of the things I think are most important for our Association and for our profession. Anyone attending a different set of events would probably come up with his or her own list of favorite topics, but I would like to share a few of mine.

So many things have changed over the past ten years that it is imperative that we bring this information up to date. Fortunately, a number of excellent new model programs have appeared, at the same time that there has been increased use of adjunct faculty, often in situations with little support, low pay, and minimal benefits. A joint MAA-AMS committee is hard at work to address current issues and concerns, and I applaud their efforts. (Please contact

*President continued on page 9*

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## Cathleen S. Morawetz Becomes First Woman to Receive National Medal of Science for Mathematics

Cathleen Synge Morawetz, former President of the American Mathematical Society and professor emerita at NYU's Courant Institute, has been awarded the National Medal of Science. She is the first woman to receive the medal for work in mathematics, specifically for her pioneering research in partial differential equations and wave propagation applications for aerodynamics, acoustics, and optics. She is one of nine scientists to receive the 1998 award, the nation's highest scientific honor.

Her work in mathematics has allowed engineers to focus on what matters in the design of airplane wings: the minimizing of shock waves. In the late 1950s, she demonstrated that shock waves are inevitable—and thus cannot be eliminated—if a plane moves close to the speed of sound, no matter how wings are designed.

Her mathematical work has also contributed to the theory of scattering, which deals with how waves interact with obstacles or changes in the me-



*Cathleen Synge Morawetz*

dium. It provides the framework for analyzing the many techniques for remote sensing, including ultrasound and radar.

Morawetz, 75, who was born in Canada and became a U.S. citizen in 1950, called her award "an occasion of great moment for me. I am filled with gratitude to all those—and there were a great many—who helped me over many years." Her biggest wish is that her award will motivate more women to study mathematics. ■

## MAA Awards from San Antonio: The List of Winners

*Deborah and Franklin Tepper Haimo Awards for Distinguished College or University Teaching of Mathematics:*

**Joel V. Brawley**, Clemson University

**Robert W. Case**, Northeastern University

**Joan Hutchinson**, Macalester College  
*Chauvenet Prize:*

**Michael I. Rosen**, Brown University, for "Niels Hendrik Abel and Equations of the Fifth Degree" in the *American Mathematical Monthly* 1995, pp. 495-505.

*Certificates of Meritorious Service:*

**Billy E. Rhoades**, Indiana Section

**Charles Alexander**, Louisiana-Mississippi Section

**Randall Heckman**, Nebraska-South-east South Dakota Section

**David Kullman**, Ohio Section

**Marcellus Waddill**, Southeastern Section

*Yueh-Gin Gung and Dr. Charles Y. Hu Award for Distinguished Service to Mathematics:*

**Leonard Gillman**

*AMS-MAA-SIAM Frank and Brennie Morgan Prize for Outstanding Research in Mathematics by an Undergraduate Student*

**Daniel Biss** (winner)

**Aaron Archer** (honorable mention)

*JPBM Communications Award:*

**Ian Stewart**

*JPBM Special Communications Award:*

**John Lynch and Simon Singh**

For further details go to MAA OnLine <[www.maa.org](http://www.maa.org)> 

## Secretary's Report: Much Ado at the MAA This Past Year

Martha J. Siegel



This has been an exciting year for the MAA. There has been a lot of activity in the projects, task forces, and committees that carry much of the Association's work. Reading the Sections' newsletters, I know that a similar level of activity is taking place on the local level. And the staff at headquarters helps to bring our many ideas to fruition.

Marcia Sward has announced her intention to step down as Executive Director at the end of 1999. Her leadership as Executive Director over the past ten years, and as Associate Executive Director before that will have meant 15 years at the MAA. It is hard to imagine the MAA without Marcia at the helm.

The Search Committee for a new Executive Director, chaired by former President Kenneth A. Ross, met in San Antonio, and by the time you read this the search process will be well underway.

### Board of Governors

The Board of Governors endorsed the formation of a group to study the priorities of the MAA for the start of the next millennium. President Tom Banchoff heads the group, which is expected to report to the Executive and Finance Committees at their May meeting and to the Board at its meeting in Providence in July.

At the recommendation of the Board, the Bylaws were changed at the Business Meeting in San Antonio to allow the Chair of the Committee on Publications to serve in place of one of the three journal editors on the Executive Committee. All members of the Executive Committee serve on the Board of Governors.

The Board voted at its January meeting to support "in principle" the merger

of the Executive and Finance Committees. The revision of the Bylaws to reflect the merger will be presented to the Board in July. This was recommended by an ad hoc committee chaired by Richard Anderson.

We welcome Titu Andreescu as Director of the American Mathematical Competitions (AMC) and thank Walter Mientka for his accomplishments in the many years he served as director. Walter has been given the title Director Emeritus of the AMC. He is now serving as the Executive Director of IMO USA 2001.

At its January meeting, the Board voted to add another test to the competitions specifically for 9th and 10th graders. After a trial period of three years, the competition for 9th and 10th graders will be reviewed.

The Committee on Industrial and Government Mathematicians, chaired by Michael Monticino of the University of North Texas, sponsored a very successful reception at the San Antonio meetings. The committee's survey of nonacademic members of the MAA is excellent and will be helpful as we consider strategic plans for the next few years.

There are several members of the Board of Governors whose terms expired at the end of January. We thank Deborah Tepper Haimo, Former President; Manuel Berriozábal, Governor-at-Large, Minority Interests; and Kathy Layton, Governor-at-Large, High



Bart Braden (l) and Woody Dudley at the CMJ Editorial Dinner in San Antonio.

School Teachers. The Board elected William Yslas Velez of the University of Arizona to be Governor-at-Large, Minority Interests and Daniel Kennedy of

the Baylor School in Chattanooga, TN to be Governor-at-Large, High School Teachers—each for a term of three years.

We welcome Underwood Dudley to the Board. He is Editor of *The College Mathematics Journal*. And we thank Bart Braden for his work as editor, Board member, and Executive Committee member. He turned out a beautiful journal and worked hard for the Association for the last five years.

### Committee Work

Many committees are working to improve the relationship of the MAA to graduate students and part-time and adjunct faculty. A small ad hoc committee had a session for department chairs, particularly for departments in liberal arts colleges, comprehensive universities, and two-year colleges.

More than fifty people attended and clamored for more sessions at both summer and winter meetings. We are cooperating with the AMS in studying the role of teaching assistants and part-time faculty (chaired by Suzanne Lenhart) and, again with the AMS, we have a group working as part of a national study on Preparing Future Faculty (chaired by Thomas Rishel).

### Publications

On the publications front, we thank Jim Daniel, who has served six years as Chair of the Coordinating Council and Committee on Publications. We recognize



Jim Daniel (r.) receiving an award from MAA Director of Publications Don Albers in San Antonio in recognition of his outstanding work as Chair of the Committee on Publications.

Report continues on page 8

## Contributed Paper Sessions at Mathfest 1999: Preliminary Announcement

The Mathematical Association of America will hold its annual Mathfest from Saturday, July 31, through Monday, August 2, in Providence, RI.

Please note that the days scheduled for these sessions remain tentative. The organizers listed below solicit contributed papers pertinent to their sessions; proposals should be directed to the organizer whose name is followed by an asterisk (\*). There will be a general contributed papers session at the Providence Mathfest.

Sessions generally limit presentations to ten minutes, but selected participants may extend their contributions up to twenty minutes. Each session room contains an overhead projector and screen; black/white boards will not be available.

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### Submission Procedures for Contributed Paper Proposals

After you have selected a session for which you wish to contribute a paper, forward the name(s) and address(es) of the author(s), and a one-page summary of your paper to the organizer (indicated with an \*) by April 12.

Do not forward summaries to the MAA. Send them to the session organizer.

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### Computational Biology in the Undergraduate Discrete Mathematics Curriculum

Saturday afternoon

This session is intended for four-and two-year college faculty who are interested in using new teaching materials, which reflect current research in computational molecular biology. The session invites papers, which (1) describe modules that are motivated by the emerging research problems of computational molecular biology like DNA sequencing and phylogenetic tree building, (2) describe classroom teaching experiences using any such modules, or (3) report on models of how to connect teaching faculty with current research development. Materials for any level of undergraduate discrete mathematics or introductory computer science courses

are considered.

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### Great Theorems of Mathematics

Saturday and Sunday afternoons

This session will feature expository talks on important theorems from a variety of mathematical disciplines. The talks might address history and applications as time permits, but will primarily focus on showing a general mathematics audience the flavor of the proof (or proofs) of the result. These talks should be in the spirit of "coffee room conversations" where mathematicians from different fields discuss the most significant or interesting theorems in some area.

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### Mathematics Across the Disciplines

Saturday and Sunday afternoons

Over the last several years there has been a growing interest in interdisciplinary applications of mathematics. This has been demonstrated at a variety of levels ranging from interdisciplinary projects and activities in the classroom to team teaching of entire courses. This session invites papers describing interdisciplinary activities

which integrate mathematics with one or more partner disciplines. We are particularly interested in applications that have been successful and which can be transported to curricula at other schools. Examples may include, but are not limited to: one activity; one class; one project; one section; one course; or an entire curriculum. We welcome participation of colleagues from partner disciplines.

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### Innovative Uses of Technology in the Teaching of Geometry

Saturday afternoon

The teaching of geometry has been influenced by the introduction of interactive and dynamic visualization. Various software applications (such as *Geometer's Sketchpad* and *Cabri Geometry*) have made it possible to add an experimentation component to traditional geometry courses. This session invites presentations illustrating novel ways to use technology in the teaching and learning of geometric concepts at all levels of mathematics. Of particular interest are experimental components to geometry courses, examples of independent and collaborative learning projects that utilize technology, and interactive use of the Web in teaching geometry courses. This session is organized on behalf of the MAA Committee on Computers in Mathematics Education.

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### Conversations About Mathematics Education Research

Sunday and Monday afternoons

Over the past few decades, interest in research conducted in the field of mathematics education has grown. As this activity expands, the need to clarify, evaluate and apply this research becomes increasingly more important. This session invites papers addressing: research paradigms in mathematics education, descriptions of ongoing projects, how such research affects curriculum design and the teaching of our undergraduate core mathematics courses, history of research in mathematics education, current issues and trends in mathematics education research from an editor's point of view. Our focus will be on research conducted in the post-secondary arena.

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Tabitha T.Y. Mingus  
Western Michigan University

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### The Use of Technology in the Teaching of Applications in Undergraduate Mathematics

Sunday and Monday afternoons

The use of computer programs and calculators have made it much easier to study real world applications in courses ranging from precalculus through senior level mathematics courses. In these sessions, papers will highlight how the innovative use of technology can be used to aid in the teaching of applications. Papers may cover applications to any subject as well as any level mathematics course.

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### Distance Learning

Monday afternoon

This session will focus on the use of technology and other strategies to provide effective mathematical instruction in a distance learning environment. This includes the use of video conferencing and/or the Internet and other synchronous or asynchronous formats.

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### The Use of Creative Writing in Teaching Mathematics

Monday afternoon

Student comments such as "I can't do the algebra but if you asked me to write about the problem then I could do it" and "I'd rather write a story than solve a bunch of math problems" have caused many of us to consider how creative writing can be used to test the student's understanding of course concepts and to demonstrate the student's problem solving ability. In this session, presenters will discuss the assignments/projects requiring creative writing that they have used, how these assignments have helped/hindered the student in demonstrating an understanding of mathematics, the difficulty of using these assignments, the development/assessment of writing assignments, and the effect of writing assignments on the student's attitude toward mathematics.

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### General Contributed Paper Session

Sunday afternoon

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E-mail: fford@providence.edu

Jeffrey Hoag  
Providence College

Liam Donohoe  
Providence College

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### A Manual for Principal Investigators on MAA Projects Explains All You Need to Know

As of January 1, 1999, there were nineteen MAA programs funded by twenty-nine grants. The granting agencies include the National Science Foundation, Exxon Educational Foundation, and Carnegie. Over the years, the MAA staff and the two vice presidents, as members of the Subcommittee for Externally Funded Projects (SEFP), have worked to develop a process for prospective PI's to follow.

We now have the process written in the form of a PI Manual. The goal of the manual is to give detailed information about how to work with the MAA while developing proposals and what to do once the proposal is funded.

It is available at MAA Online <[www.maa.org](http://www.maa.org)> or from the MAA office. ☎

*Sward continued from page 1*

A summa cum laude graduate of Vassar College, Marcia received her doctorate from the University of Illinois, writing her dissertation on partial differential equations.

She first came to the MAA in 1980 to fill the newly established position of Associate Director, after teaching for more than a decade at Trinity College in Washington, D.C. During the subsequent five years, she launched the MAA's newsletter, FOCUS, established the Greater MAA Fund, and supported various MAA programs such as Women & Mathematics and the Placement Test Program.

In 1982, she also assumed the part-time role of Administrative Officer of the Conference Board of the Mathematical Sciences (CBMS). CBMS developed the concept of a national board for mathematics education and approached the National Academy of Sciences about sponsoring it. The Academy accepted this challenge, and Marcia became its first Executive Director in September 1985.

Starting with a small planning grant from the Academy, Marcia raised over \$5.5 million over the next four years in grants from government agencies and private foundations. These funds were used to inform the public about the importance of improving mathematics education in the United States, and to support various national symposia and publications (e.g., *Everybody Counts* and *Calculus for a New Century*).

Marcia returned to the MAA in 1989 when Alfred Willcox retired after 22 years as MAA Executive Director. Since then she has served under five presidents: Lida Barrett, Deborah Tepper Haimo, Donald Kreider, Kenneth Ross, and Gerald Alexanderson. She will be working with President Thomas Banchoff for the first year of his term in office. When former presidents were asked about working with Marcia, they all reported the most cordial and beneficial relationship, making the MAA an organization that encourages the best in its officers and staff.

At the Joint Meetings in San Antonio in January, MAA President Gerald Alexanderson said, "We have enjoyed the wonderful leadership of Marcia as

Executive Director for ten years and have worked with her at the MAA for longer than that. It is difficult to imagine the MAA without Marcia at the helm."

#### **Growth of the MAA**

The MAA has grown considerably during Marcia's tenure and the nature of the position of the Executive Director has changed as well. It has been a time of maturation for the Association and Marcia has led the Washington staff in such changes as the introduction and conversion of computer systems for membership, publications management, financial operations, and programs.

Marcia introduced the Visiting Mathematicians Program in the Washington office. The program was extremely successful, attracting dedicated and hard-working members to Headquarters for as much as a year. Some of those who have held the position are: Andy Sterrett, Christine Stevens, Anita Solow, Frederick Rickey, Jon Scott, Robert Eslinger, and Victor Katz. Many former Visiting Mathematicians work tirelessly for the MAA long after their term at Headquarters is over.

In addition to the phenomenal growth of the publications program of the Association, we have seen the concomitant surge in the number of programs offered to members, a commitment to the young members of the profession through Project NExT, and support of the SUMMA program and other initiatives to increase the presence of minorities and women in the mathematical sciences. Millions of dollars have been raised from Federal agencies and private foundations, as well as from friends and members of the MAA through the Greater MAA Fund and Planned Giving, to support these programs.

Marcia played a key role in development of the Association's strategic plan in 1994, and is once again a driving force in the MAA's new strategic planning project, *A New Agenda for the 21st Century*. For many years, Marcia has served as an important resource to the Executive & Finance Committees and Board. She has consistently advocated increased cooperation with other scientific and mathematical societies.

Since 1989, she has been an active

member of the Joint Policy Board for Mathematics (JPBM), the joint organization through which the MAA, AMS, and SIAM carry out many of their public information and government relations activities. She is currently serving on the Board of Directors of the Council of Engineering and Scientific Society Executives. ■

#### **Search for a New Executive Director**

The MAA's Board of Governors will be asked to approve the choice of a new Executive Director, based on the recommendation of the newly formed Search Committee appointed by the President. The Search Committee is chaired by former president Kenneth Ross. Other members are Gerald Alexanderson, Wade Ellis, Jr., Gerald Porter, Martha Siegel, Christine Stevens, and David Stone. The committee hopes to conduct interviews this spring.

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## **1999 Wolf Prize Awarded to Laszlo Lovasz & Elias M. Stein**

The 1999 Wolf Prize in Mathematics is to be shared by Yale University professor, Laszlo Lovasz, 50, "for his outstanding contributions to combinatorics, theoretical computer science and combinatorial optimization"; and Princeton University professor, Elias M. Stein, 68, "for his contributions to classical and Euclidean Fourier analysis and for his exceptional impact on a new generation of analysts through his eloquent teaching and writing."

Lovasz's groundbreaking results in discrete mathematics have had very significant applications to other areas of pure and applied mathematics as well as to theoretical computer science. He solved several outstanding problems in the field by introducing deep mathematical methods which rely on geometric, polyhedral and topological techniques. Lovasz also developed important algorithmic ideas which later served to advance applications in com-

*Wolf prize continued on page 8*

## Five NSF-CBMS Research Conferences Slated for Summer 1999

The NSF has funded five NSF-CBMS Regional Research Conferences to be held in the summer of 1999. (These five will bring to 272 the total number of such conferences since the NSF-CBMS Regional Research Conference Series began in 1969.)

These conferences are intended to stimulate interest and activity in mathematical research. Each five day conference features a distinguished lecturer who delivers ten lectures on a topic of important current research in one sharply focused area of the mathematical sciences. The lecturer subsequently prepares an expository monograph based upon these lectures, which is normally published as a part of a regional conference series.

Depending upon the conference topic, the monograph is published by the American Mathematical Society, the Society for Industrial and Applied Mathematics, or jointly by the American Statistical Association and the Institute of Mathematical Statistics.

Support for about 30 participants is provided and the conference organizer invites both established researchers and interested newcomers, including postdoctoral fellows and graduate students, to attend.

Information about an individual conference may be obtained by contacting the conference organizer. Information about the series and guidelines for submitting proposals for future conferences may be obtained by writing or calling the Conference Board of the Mathematical Sciences.

### CBMS

1529 18th St. NW  
Washington DC 20036-1385  
Phone: (202) 293-1170  
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Email: kolbe@math.georgetown.edu  
or rosier@math.georgetown.edu  
<http://www.maa.org/cbms/cbms.html>

### Combinatorial Optimization: Packing and Covering

Gérard P. Cornuéjols  
May 24–28 University of Kentucky  
Jon Lee, Michael Jacobson, Carl Lee,  
Kristina Vuskovic, Andre Kezdy,  
and Jenő Lehel, organizers.  
606-257-3336  
kristina@ms.uky.edu  
[www.ms.uky.edu/~jlee/cbms.html](http://www.ms.uky.edu/~jlee/cbms.html)

### Generalized Linear Mixed Models and Related Topics

Charles E. McCulloch, lecturer  
June 8–12 University of Florida  
James G. Booth, organizer  
352-392-1941  
jbooth@stat.ufl.edu  
[www.stat.ufl.edu](http://www.stat.ufl.edu)

### Mathematical Analysis of Viscoelastic Flows

Michael Renardy, lecturer  
June 19–23 University of Delaware  
David O. Olagunju and Yuriko Renardy,  
organizers  
302-831-1875  
Olagunju@math.udel.edu  
renardy@math.vt.edu  
[www.math.udel.edu](http://www.math.udel.edu)

### Statistical Inference from Genetic Data on Pedigrees

Elizabeth A. Thompson, lecturer  
July 19–23 Michigan Technological  
University  
Jianping Dong and Anant Godbole,  
organizers  
906-487-2928  
jdong@mtu.edu;  
anant@mtu.edu  
[www.math.mtu.edu/~jdong/cbms.html](http://www.math.mtu.edu/~jdong/cbms.html)

### Mathematical Control Theory of Coupled Systems of Partial Differential Equations

Irena Lasiecka, lecturer  
August 5–9 University of Nebraska  
Richard Rebarber, organizer  
402-472-7235  
rrebarbe@math.unl.edu  
[www.math.unl.edu/Dept/Conferences/CBMS/](http://www.math.unl.edu/Dept/Conferences/CBMS/) ■

## NSF Workshop at Cornell to Concentrate on Teaching Undergraduate Geometry

This workshop, which will run June 1–7, is intended for college and university faculty who teach (or soon will teach) an undergraduate geometry course, such as the courses typically attended by future or in-service teachers. The leaders of the workshop will be David Henderson (Cornell University), Kelly Gaddis (Buffalo State College), Jane Lo (Ithaca College/Cornell University), and Avery Solomon (Cornell University). In addition, it is expected that two previous participants will serve as mentors who will share their recent geometry teaching experiences and provide support throughout the week.

In the mornings, participants will experience a learning and teaching environment that is innovative both in terms of content and in terms of teaching methods. The content will be the integration of geometries on plane, sphere and other surfaces — presented through problems which emphasize experiencing the meanings in the geometry. Student investigations, small group learning, and writing assignments will be explored.

In the afternoons, there will be seminars and presentations on topics related to the workshop theme, including: “Using Writing in Mathematics”, “Using Computer Technology in Geometry”, “Non-test-based Assessments”, “Including All Students by Encouraging Diverse Ideas”, “Curriculum Developments in School Geometry”, “Student Affects and Beliefs Surrounding Innovative Programs”, and “The 8 Undergraduate Geometry Courses at Cornell.” In addition, there will be ample free time for informal discussions and enjoyment of the geometry of nature in and around Ithaca.

Much of the housing and food expenses will be covered by the NSF for all participants. There may also be very limited NSF funds available to support travel costs for participating faculty from institutions with limited resources. The NSF will also support follow-up activities by the participants after the workshop including local workshops,

exchange of related classroom materials, and communication of experiences and ideas. The workshop will begin with an evening reception at 6:30 p.m. on Tuesday June 1 and end at 4:30 p.m. on Monday, June 7, with a free day on Saturday. Housing will be provided for participants wishing to stay through Tuesday, June 8. ■

For more information and application procedures contact:

WWW — <http://math.cornell.edu/~dwh>

or (if you have no WWW access):  
e-mail: [dwh@math.cornell.edu](mailto:dwh@math.cornell.edu)

or write or fax to:  
UFE Geometry Workshop  
Department of Mathematics  
Cornell University  
Ithaca, NY 14853-7901.  
Fax: 607-255-7149.

*Wolf Prize continued from page 6*



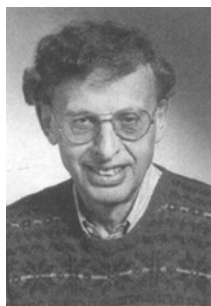
*Professor Laszlo Lovasz*

puter science, cryptography and information theory.

His area of research was deeply affected by another famous Hungarian mathematician, Professor Paul Erdős, 1983 Wolf Prize Laureate, whom Lovasz met in his youth. His encounter with Erdős, coupled with the latter's articles, were to determine Lovasz's future direction in mathematics.

Hungarian-born Lovasz received his Ph.D. in mathematics from the Mathematical Institute of the Hungarian Academy of Sciences. He was affiliated with a number of universities in Hungary prior to joining Yale University's Department of Computer Science, in 1993.

Professor Elias Stein has made many key fundamental contributions to mathematical and harmonic analysis—the latter, in continuation to the work of noted



*Professor Elias Stein*

19th century French mathematician, J.B.J. Fourier. Stein developed mathematical tools in harmonic analysis which proved of great import to both mathematicians and physicists. His students, who significantly advanced developments in mathematical analysis, are today world leaders in the field.

Born in Belgium, Elias Stein received his BA and Ph.D. from the University of Chicago, where he was a professor until 1963. For the past 25 years, he has been on the faculty of Princeton University. Stein was also a member of Princeton's highly prestigious Institute for Advanced Study. ■

*Photograph of Laszlo Lovasz by Michael Marland, Yale University Office of Public Affairs. Photograph of Elias Stein, courtesy of Princeton University Office of Public Affairs.*

### **The Wolf Prize for Outstanding Achievement**

The Wolf Prize was established in 1978, by the late German-born Ricardo Wolf. A resident of Cuba for many years, he became Fidel Castro's ambassador to Israel, which became his home, until his death in 1981. The Israel-based Wolf Prize is awarded to outstanding scientists and artists, "for achievement in the interest of mankind and friendly relations among peoples." The annual prizes, of \$100,000 in each area, are given in four out of five scientific fields, in rotation: Agriculture, Chemistry, Mathematics, Medicine and Physics. In the Arts, the Prize rotates among Architecture, Music, Painting and Sculpture.

Wolf Prize Laureates to date number 181 Laureates from 19 countries.

The 1999 Wolf Prizes will be conferred by the president of the State of Israel, Mr. Ezer Weizman, at a special ceremony, at the Knesset (parliament), on Sunday May 2, 1999.

*Report continued from page 3*

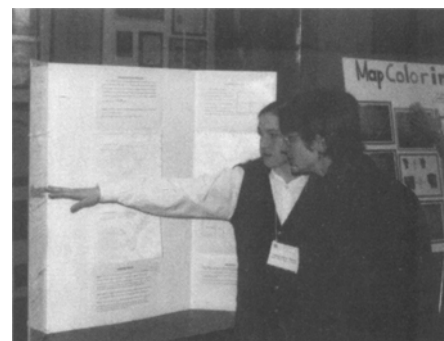


*Bill Watkins (l.), new Chair of the Committee on Publications, talking shop with Don Albers and Woody Dudley in San Antonio.*

all he has done to keep the many books, journals, notes, magazines, and newsletters in excellent shape. Best of luck to Bill Watkins who will continue the fine work as Chair. Publications continue to be the jewels in our crown!

### **San Antonio Meeting**

The meetings in San Antonio were wonderful, largely due to the hard work of our Associate Secretary, Jim Tattersall, and the Program Committees who selected stellar speakers for Invited Addresses. The presence of the NExT Fellows continues to energize the Association. As usual, there were so many good things on the program that choices were hard to make!



*The Student Poster Session in San Antonio attracted many student presenters and visitors.*

### **Mathfest '99**

Exciting plans for Mathfest in Providence (July 31–August 2) should make the 1999 Mathfest a "must" for all MAA members. Other meetings approved by the Board are: Washington, D.C. — January 19–22, 2000 (AMS-MAA-SIAM Joint Meeting); Mathfest 2000 in Los Angeles at UCLA — August 3–5, 2000; New Orleans, LA — January 10–13, 2001; and San Diego, CA — January 6–9, 2002. Be there!!! ■



*President continued from page 1*

Suzanne Lehnart at the University of Tennessee or Teri Jo Murphy at the University of Illinois if you have some specific input to give as they shape this project.)

## San Antonio Meeting

Any number of sessions and talks in San Antonio centered on the use of technology in mathematics education, an issue that has concerned me throughout my teaching career. The Internet, in particular, offers great possibilities for enhancing teaching and research, especially in introducing new modes of communication between students and instructors.

It is easy to predict that this will revolutionize large parts of our profession and

the MAA has a special opportunity to stay on top of developments and challenges. Gene Klotz at Swarthmore and Earl Fife from Calvin College put together a very stimulating panel on the topic, and they always appreciate hearing about new developments and suggestions.

At several committees, I reported on the progress of another electronic effort, *Communications in Visual Mathematics*, drawing attention to a new prototype version accessible at MAA Online<[www.maa.org](http://www.maa.org)>. This is only one of many features on our MAA web page, and I encourage everyone to check out the wealth of information and services available there.

More and more we will be depending on this electronic medium for communication among members, and we all

appreciate hearing your reactions and suggestions. Once you are on line, you will easily find ways of posting your ideas to the editor, Fernando Gouvêa.

Teaching assistants and part-time instructors carry out a large part of the teaching in our two-year colleges, four-year colleges and universities. Thirteen years ago I participated in a three-year effort which surveyed the ways in which these instructors were selected, trained, supervised, evaluated, and rewarded. We produced two MAA Notes volumes with surveyed results and models to suit a variety of institutions.

Already this past year I have attended meetings of the Joint Policy Board for Mathematics, which brings together officers from the MAA, AMS, and SIAM to address issues that affect the whole profession, primarily involving the government and the funding agencies.

Danny Goroff, the new director of that board, and April Burke of the Lewis-Burke Agency described ways in which all of our organizations can cooperate to represent the interests of mathematics, and it seems that this activity will be more and more important.

Before I became a member of JPBM, I did not appreciate how important these efforts were, and I now see this as one of the most significant things we do from our national MAA headquarters. Your ideas and comments help us in all of these activities.

There are many other areas that I could talk about, for example, the excellent work done by Walter Mientka and Titu Andreescu of the University of Nebraska on the American Mathematical Competitions and the International Mathematical Olympiad, and the activities of the newly formed Association for Research in Undergraduate Mathematics Education (ARUME), spearheaded by our Second Vice-President Ed Dubinsky.

I expect to write more about both of these efforts in messages in FOCUS in issues to come.

## Member Survey

What about the immediate future? During the next month, six hundred MAA members, chosen randomly, will

## Five Reasons to Visit MAA Online

*Fernando Q. Gouvêa*

Web sites are continually changing. Even the lead time between the writing of this article and the publication of FOCUS is long enough for many things to have changed in MAA Online. Nevertheless, here are five reasons you might want to come to <http://www.maa.org> and spend some time with us.

1) **News**—MAA Online carries news about the activities of the Association and also about what's going on in the world of mathematics, from the auction of the Archimedes manuscript at Christie's to the latest decisions by the MAA Board of Governors.

2) **Visualize the mathematics**—There are some things the web can do better than any printed journal. From MAA Online, you can check out *Communications in Visual Mathematics*, the newest journal of the MAA, dedicated to explaining mathematics in ways that just can't be done on paper. Or visit Alex Bogomolny's *Cut the Knot* column to see how with a little Java programming geometric theorems can come to life.


3) **Read those books**—Just because we're online doesn't mean we don't like books; in fact, like most mathematicians, we can't have enough of them. So our book review column is quick,

usually reviewing a book within a few months of publication. We also try hard to unearth interesting books that are related to mathematics. For example, have you noticed that mathematicians have been turning up as characters in novels lately? We've reviewed Iain Pears' *An Instance of the Fingerpost*, and there are more to come.

4) **Is math becoming cool?**—With mathematicians showing up in popular novels and films and mathematical biographies showing up on the best seller lists, could it possibly be that math is now considered cool? Keith Devlin considered this question at the end of last year in his *Devlin's Angle* column; you'll need to come and see what he concluded.

5) **Think before you teach**—If you're like me, you are tempted to teach on autopilot, doing it the way you did it last time. I find Annie and John Selden's *Research Sampler* to be quite effective at jolting me out of my complacency and giving me ideas I can use. You can find it in our *Teaching and Learning* section.

There's more, of course... In fact, there's so much that we're furiously working on creating a "site map" to help you find all the goodies. I'll tell you all about it next time.

See you online! 

be invited to participate in a carefully designed MAA Member Needs Survey. We have a thriving association with a crucial mission.

We always have to be looking for ways to improve the MAA and to attract new members and supporters. The six hundred interview subjects will have the chance to respond to telephone interviews, covering participation in sectional and national meetings, MAA journals and other publications, programs and projects at the local and national levels, including MAA Online.

The data from these interviews, and the reports of all the MAA committees and councils that have been considering these same topics, will be the primary material for a planning retreat I will be chairing at the end of March. Our agenda is straightforward: we want to identify the directions we should be going in as we enter the next century.

Five years ago the MAA developed a strategic plan with input from many of us. A dozen of us will be reviewing that plan and coming up with a new one. During the weekend session we aim to produce a document that will guide further MAA deliberations, at the summer meeting and beyond.

If you don't happen to be one of the six hundred, you can still make your priorities known by contacting our Executive Director Marcia Sward or me, preferably by the middle of March. Why not do it today?

### Mathfest '99

This provides a segue to the summer meeting, Mathfest 1999 in Providence, RI. What a good time we are going to have. Our Associate Secretary Jim Tattersall from Providence College has worked with local committees to set up an outstanding program, which will be featured in the April issue of FOCUS. Some of you may have seen views of our revitalized city on the recent television show "Providence."

It really is an attractive setting, and we hope to have any number of events, at Brown University and at the AMS headquarters among other places. There will be much to see and do.

### The Leitzel Lecture

One invitation I received in connection with the Mathfest is giving me a lot of thought. I was deeply honored to receive the invitation to give the first Leitzel Lecture, a memorial to our colleague who did so much for the MAA, particularly in the first years of the NExT program.

That effort has been so successful in reaching and supporting young mathematics faculty that we are now seeking ways to expand its influence throughout the country. My topic, "Teaching Stages," leads me to reconsider all my preconceptions about our profession, and the ways things have changed for me over the course of the last thirty-five years.

Each of us has his or her stories, and I hope that more of them will show up here in FOCUS and MAA Online. One of my duties at the San Antonio meeting was to introduce the winners of our national teaching award, the Deborah and Franklin Tepper Haimo Prize, as they gave their presentations.

I am encouraging each of them to write up a report on their teaching experiences for our newsletter, and I have asked for the reports of past winners to be featured in a section of MAA Online. Look for this new feature soon.

We have a wealth of experience in the MAA, and a great deal of enthusiasm, especially among those just entering our profession. Let's all work to make the MAA as effective as possible. Please tell your colleagues about what we are trying to do.

### Making the MAA More Effective

We hope that many more of them will be joining our ranks. MAA Institutional membership is a great way for departments to show their support for our efforts. Encourage your own department to join if it hasn't already.

Finally, let me know what you think about the MAA. We appreciate all the help we can get. We all have a lot to look forward to. ■

## Next STATS Workshop Slated for Hope College

Supported by the National Science Foundation, the Mathematical Association of America is conducting a series of faculty development workshops designed for mathematicians who teach courses in introductory statistics but have little formal training in the subject. Goals of the workshops—called "Statistical Thinking with Active Teaching Strategies"—are to help faculty participants to:

- teach statistical thinking with more data and concepts, less theory and fewer recipes
- explore active learning alternatives to the lecture method in their teaching of statistics
- make effective use of technology in their statistics courses
- use authentic assessment practices in evaluating the work of their statistics students
- discover a myriad of print and electronic resources for teaching statistics
- engender lasting collegial relationships among mathematicians who teach statistics

Workshop participants are expected to cover their own travel costs and to have e-mail accounts. The grant will cover room & board for the summer workshops and will also provide participants with a variety of teaching resources.

A week-long STATS workshop will be held at Hope College in Holland, Michigan from June 13–19, 1999. The application deadline is April 23, 1999. For more information and for application forms, please check the WWW site at <http://www.dickinson.edu/~rossman/STATS/> or contact:

Maureen Callanan  
 STATS Project Registrar  
 Mathematical Association of America  
 1529 Eighteenth Street NW  
 Washington, DC 20036-1385  
 phone 202-387-5200  
 fax 202-483-5450  
 mcallana@maa.org

You may also direct questions to project directors Allan Rossman (rossman@dickinson.edu) and Tom Short (short@monet.vill.edu). ■

**EMPLOYMENT OPPORTUNITIES**

CALIFORNIA

**MIRACOSTA COMMUNITY COLLEGE**

MiraCosta Community College, in North San Diego County, invites applications for a full-time, tenure-track Mathematics Instructor, beginning August 1999. Minimum qualifications: Master's degree in mathematics or applied mathematics, OR Bachelor's in mathematics or applied mathematics and Master's in physics, mathematics education, or statistics, OR appropriate California teaching credential, OR equivalent. Closing date: March 17, 1999. Request application materials: e-mail jobs@mcc.miracosta.cc.ca.us or call the job line 760-757-2121, ext. 6868 (toll free 1-888-201-8480, ext. 6868). Website www.miracosta.cc.ca.us. MiraCosta is a high-tech, high-touch college noteworthy for its computer infrastructure and for the number of computers available to staff and students. MiraCosta College, One Barnard Drive, Oceanside CA 92056. AA/EOE.

MINNESOTA

**SOUTHWEST STATE UNIVERSITY**

**Mathematics**

Southwest State University invites applications for a probationary full time Assistant/Associate Professor of Mathematics to begin August 18, 1999. The faculty member will teach a full range of statistics/mathematics courses and participate in department and university activities including, but not limited to, curriculum development, program review and outreach. Responsibilities may also include developing and directing a regional polling service and/or other statistical application tasks for the university. Doctorate in Statistics preferred. Completion of doctorate required by September 1 of the tenure application year. Successful college teaching and research and a strong commitment to working with students at the undergraduate level is highly desirable. Preference will be given to an applicant able to teach a breadth of statistics and mathematics

courses and to an applicant who can demonstrated the ability to contribute to other statistical tasks for the university. Experience in computer use in teaching is also desirable. Letter of application addressing position qualifications, vita, teaching evaluations, official transcripts and name, address, and phone numbers of three references should be submitted to: Office of Human Resources, Southwest State University, 1501 State Street, Marshall, MN 56258. Review of the applications will begin on March 25, 1999 and will continue until position is filled. **SOUTHWEST STATE UNIVERSITY IS AN EQUAL OPPORTUNITY EDUCATOR AND EMPLOYER. APPLICANTS MUST BE ABLE TO LAWFULLY ACCEPT EMPLOYMENT IN THE UNITED STATES.**

TEXAS

**LEE COLLEGE**

The Math, Engineering and Sciences Division of Lee College, a public 2-year Community College, located in Baytown, 20 miles east of Houston, Texas, invites applications for a regular contract appointment in **Geology/Math**. The successful candidate will have at least a Master's Degree in Geology or related field and adequate credits to teach developmental and/or college math. Preference will be given to candidates with 18 graduate hours in geography, teaching experience at the community college level, a background in GIS, and a strong demonstrated commitment to field geology as an instructional tool. Teaching responsibilities include physical, historical, environmental, introductory geology and developmental or college mathematics. Off campus, night and weekend sections may be assigned. The starting salary range will be \$31,947 to \$38,611, depending upon degrees and experience. Excellent college benefits will accrue with this position. Qualified candidates must submit a current resume, cover letter, copies of applicable transcripts or evaluation of foreign transcripts (official transcripts required upon employment) and contact information on 3 professional references to:

**Personnel Office**

Lee College  
P.O. Box 818  
Baytown, Texas 77522-0818  
Telephone: 281/425-6875  
FAX: 281/425-6568

WASHINGTON

**EASTERN WASHINGTON UNIVERSITY**

Department of Mathematics, MS-32  
Cheney, WA 99004-2431  
Graduate Instructorships in the Master's program only are available starting on 20 September 1999, with tuition waivers and about \$11,000 yearly stipends. The program can document its graduates employment success in academia, government, and industry. Request application forms at the above address or through Yves.Nievergelt@mail.ewu.edu.

WISCONSIN

**VITERBO COLLEGE**

Applications are invited for a new tenure-track assistant professor position, effective late August 1999. A doctorate in the mathematical sciences is required. This is the fourth position in a department that offers mathematics and math education (secondary teaching) majors, as well as several minors. A strong commitment to teaching is essential; demonstrated successful college teaching experience is required. Applicants should be able to teach a wide range of courses, and should show a willingness to play an active role in the organizational life of the college. Viterbo College is a Catholic, coeducational liberal arts college, with about 1500 students in on-campus programs. Viterbo College encourages application by women and members of other under-represented groups. The selection process will begin 15 March 1999. Apply with (1) Vita, (2) graduate transcript, (3) three letters of recommendation (at least two of which address teaching ability), and (4) a statement of educational philosophy, to: Dr. Mary Hassinger, Dean, School of Letters and Sciences, Viterbo College, 815 S. 9th St., La Crosse, WI 54601. Website: www.viterbo.edu.

**National Meetings**

July 31-August 2, 1999, MathFest, Providence, RI  
January 19-22, 2000 83<sup>rd</sup> Annual Meeting, Washington, DC; Board of Governors January 18, 2000

**Section Meetings**

**Allegheny Mountain** April 9-10, 1999, Allegheny College, Meadville, PA  
**Eastern PA & Delaware** April 10, 1999, Villanova University, Villanova, PA  
**Illinois** April 9-10, 1999, Augustana College, Rock Island, IL  
**Indiana** March 26-27, 1999 Indiana University, Bloomington, IN  
**Iowa** April 16-17, 1999, University of Iowa, Iowa City, IA

**Kansas** March 26-27, 1999, Kansas State University  
**Kentucky** March 26-27, 1999, University of Louisville, Louisville, KY  
**MD-DC-VA** April 9-10, 1999, James Madison University, Harrisonburg, VA  
**Metropolitan New York** May 1, 1999, Hofstra University, Hempstead, NY  
**Michigan** May 7-8, 1999, Eastern Michigan University, Ypsilanti, MI  
**Missouri** April 8-10, 1999, Rockhurst College, Kansas City, MO  
**Nebraska-Southeast South Dakota** April 9-10 1999, Hastings College, Hastings, NE  
**New Jersey** April 10, 1999, College of New Jersey, Trenton, NJ  
**North Central** April 16-17, 1999 Carleton College, Northfield, MN

**Northeastern** June 11-12, 1999, Colby College, Waterville, ME  
**Ohio** March 26-27, 1999, University of Dayton, Dayton, OH  
**Oklahoma-Arkansas** March 26-27, 1999, Southern Nazarene University, Bethany, OK  
**Rocky Mountain** April 30-May 1, 1999, Adams State College, Alamosa, CO  
**Seaway** April 23-24, 1999, Syracuse University, Syracuse, NY  
**Southwestern** April 9-10, 1999, Western New Mexico University, Silver City, NM  
**Texas** April 8-10, 1999, Southwest Texas State University, San Marcos, TX  
**Wisconsin** April 23-24, 1999, University of Wisconsin-La Crosse, WI

**Professional Development Calendar****May, 1999**

May 22–23: DIMACS Center, Rutgers University, Piscataway, NJ

**Reconnecting Two-Year College Faculty to the Mathematical Sciences Enterprise**

Contact: Elaine Foley, (732) 445-4631  
elaine@dimacs.rutgers.edu

Web: <http://dimacs.rutgers.edu/twoday/1999>

**June, 1999**

June 1–5: University of Tennessee Knoxville, TN

**Barrett Lectures: Successful Strategies for the Use of Technology in the Teaching of Mathematics**

Contact: Harry Row, (423) 974-4323  
row@math.utk.edu

Web: <http://archives.math.utk.edu/barrett/>

June 1–7: Cornell University

**Teaching Undergraduate Geometry**

Contact: David Henderson  
dwh@math.cornell.edu

Web: <http://math.cornell.edu/~dwh>

June 6–18, 1999; Georgia State University Atlanta, GA

**CLUME: Cooperative Learning in Undergraduate Mathematics Education**

Contact: Jakki Gaither, (404) 651-0658  
jgaither@cs.gsu.edu.

Web: <http://www.maa.org/pfdev/clume99.html>

June 14–18: Messiah College, Grantham, PA  
**J in the Math Classroom: Visualization, Number Theory and Linear Algebra**

Contact: Marvin Brubaker, 717-766-2511  
x7283, mbrubake@messiah.edu

June 19–26: Carroll College, Helena, MT  
**Partnerships: Physics and Mathematics**

Contact: Tina Straley, (770) 423-6738

tstraley@ksumail.kennesaw.edu

Web: <http://science.kennesaw.edu/~mburke/partnerships>

June 20–July 10: Park City, UT

**Park City Mathematics Institute: Arithmetic Algebraic Geometry**

Contact: (800) 726-4427  
pcmi@math.ias.edu

Web: <http://www.ias.edu/park.htm>

June 21–24: Allegheny College Meadville, PA

**Teaching Dynamical Systems Across the Curriculum**

Contact: George Bradley  
bradley@duq3.cc.duq.edu

June 23–25: Miami University, Oxford, OH

**The Mathematics of the Perfect Shuffle**

Contact: Bob Dieffenbach, (513) 727-3238  
diefferm@muohio.edu

Web: <http://miavx3.mid.muohio.edu/~rdieffenbach/shortcourse.htm>

June 27–July 2: Duck, NC

**Teaching in Context**

Contact: Es Laughbaum, (614) 292-7223  
elaughba@math.ohio-state.edu

**July, 1999**

July 6–16: DIMACS Center

Rutgers University, Piscataway, NJ

**Reconnecting Teaching Faculty to the Mathematical Sciences Enterprise**

Contact: Elaine Foley, (732) 445-4631,  
elaine@dimacs.rutgers.edu

Web: <http://dimacs.rutgers.edu/reconnect/1999>

July 9–10: Indiana University

Bloomington, IN

**Improving the Teaching of Mathematics Across the Undergraduate Disciplines**

Contact: Richard Patterson, (317) 274-6933

rpatters@math.iupui.edu

Web: <http://matc.siam.org/workshop4>

July 11–16, 1999; Indiana University Bloomington, IN

**Partnerships: Business, Economics, Finance and Mathematics**

Contact: Brian Winkel, (914) 938-3200  
brian-winkel@usma.edu

Web: <http://science.kennesaw.edu/~mburke/partnerships>

July 12–17: Frisco, CO

**Rocky Mountain Mathematics**

Contact: Ed Packel, (847) 735-5155  
packel@math.lfc.edu

Web: [http://math.lfc.edu/Rock\\_Mtn\\_Mathematica](http://math.lfc.edu/Rock_Mtn_Mathematica)

July 28–30: Providence, RI

**Project NEXt 1999 Workshop**

Contact: T. Christine Stevens  
(314) 977-2444, stevensc@slu.edu

Web: <http://archives.math.utk.edu/projnext/about/index.html>

**August, 1999**

August 4–7: Central Michigan University Mt. Pleasant, MI

**Innovative Programs Using Technology in Mathematics Service Courses**

Contact: Susan Lenker, (517) 774-6520  
susan.lenker@cmich.edu

**September, 1999**

September 16–19: Radisson Hotel O'Hare Chicago, Illinois

**Fourth Annual Conference on Research in Undergraduate Mathematics Education**

Contact: Mickey McDonald, (323) 259-2504  
mickey@oxy.edu

Web: <http://galois.oxy.edu/mickey/rume99.html>

*For additional information on professional opportunities please check out the MAA's website at [www.maa.org](http://www.maa.org).*

THE MATHEMATICAL ASSOCIATION OF AMERICA

# MATHFEST

# 99

July 31 to August 2, 1999  
PROVIDENCE, RHODE ISLAND

Program details available at [www.maa.org](http://www.maa.org)

