



Governor's report, 11 October 2016

This past August, I attended the MAA Board of Governors meeting in Columbus, OH. (Right before MathFest.) Probably the main item of discussion was the proposed revision of our bylaws. This includes some major changes in the governance structure of the MAA. The large representative group, currently the Board of Governors, will become the Congress, and be more a conduit for information and opinions from the sections to the Board, and concerned with strategic directions of the association.

There will also be a 9-member Board. The President and Vice President will be elected by the membership at large; the past President or President-elect will also be a member. The Congress will elect the Chair of the Congress, the Chair of the Committee on Sections, and one Board member at large. The Board itself will select a Secretary, a Treasurer, and an Associate Treasurer. This Board will be the governing body of the MAA.

The changes in the bylaws will be put to the membership for a vote at the business meeting of the MAA at the Joint Mathematical Meetings, on 7 January 2017. If you can, please be in Atlanta and let your voice be heard.

In other news, MAA membership is up, although much of the increase is due to student memberships being free for institutional member departments. Still, a large fraction of our membership is near retirement. Talk to your colleagues about MAA; get them to join! Let me know what you and your colleagues would find of value from the MAA. It is an exciting and important time to be a Mathematician – how can the MAA help? If you have ideas or comments, you can write to me at William.Stone@nmt.edu.

Finally, the MAA is starting a Strategic Planning process. Who are we as the MAA, why are we here, what do we value? Here are some of my ideas; let me know what you think.

Values

We, as the MAA, value Mathematics. Its descriptive power, its central role in modern society, its breadth of application, and its ability to empower people in their lives. Mathematics. Its beauty, and the fun and excitement of doing math. Community. The MAA is a supportive and diverse community of mathematicians. Mathematics education. We value communicating and sharing mathematics, the power of math education to influence the future, and promoting research- and evidence-based best practices of education.

Vision

We, as the MAA, aspire to be an organization

- That helps mathematicians and math educators develop in their profession;
- That helps shape the mathematical education of all students;
- That increases the number and diversity of people who appreciate mathematics;
- That provides a place for a community of those who enjoy and appreciate mathematics;
- That advocates for mathematics and the profession; and
- That provides a leading and trusted voice for mathematics in society, education, and the profession.

Mission

As the MAA, our mission is

To advance the mathematical sciences in society, education, and the profession.

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Bill Stone

Governor, MAA SW section

Southwestern Section Distinguished Teaching Award

Southwestern Section Distinguished Teaching Award went to Dana Ernst, right.

Dana was nominated by Brian Beaudrie and John Hagood, both from Northern Arizona University – Thank you Brian and John! Dana's use of the Inquiry-Based Teaching (IBL) methods have led to students developing a better and deeper understanding of mathematics at both the undergraduate and graduate level. Dana gave the attendees at this conference an idea of what he was doing in the classroom, when he gave an invited talk illustrating his methods. What fun!



NEWS FROM UTEP

Recent notable faculty awards include Dr. Larry Lesser becoming a 2016 Minnie Stevens Piper Professor, one of ten winners from all (150+) two-year and four-year public and private colleges and universities in Texas. A noteworthy accomplishment of a former student is that undergraduate alumna Gerina (Mendoza) Piller parlayed her command of slopes, angles, velocity, and distance into major success, qualifying for the 2016 Olympics in women's golf and beginning the final 18 (of 72) holes tied for second place, just two shots behind the eventual gold medalist. More details on the following page.

Directed by our department's Dr. Ming-Ying Leung, the interdisciplinary Computational Science (CPS) program (<http://science.utep.edu/computationalscience/>) currently has 41 faculty mentors from the College of Science and College of Engineering and is now searching for a computational scientist with expertise in statistical modeling for big data and high-performance data analytics. The Department also offers graduate certificates (<http://www.math.utep.edu/graduate/>) in two areas: applied statistics and applied and computational mathematics. UTEP was approved by the Society of Actuaries (SOA) to be on the list of UCAP (Universities and Colleges with Actuarial Programs) schools for Exams P and FM. This past year, faculty have chaired conferences such as the International Sun Conference on Teaching and Learning and the conference on high frequency data in finance and other fields. Dr. Joan Staniswalis retired and become a Professor Emerita while Associate Professor Emeritus Dr. Carl Hall (who worked at UTEP for 31 years) passed away January 20, 2016. More detailed news is available at: <http://math.utep.edu/dept/maxima/>.

happening on campus

CAMPUS, RESEARCH, ARTS, ATHLETICS AND OTHER UNIVERSITY UPDATES

Campus

Piper Professor

Math Professor Wins Prestigious Award

UTEP continued its strong tradition of winning one of Texas' most prestigious academic awards.

Professor of Mathematical Sciences Larry Lesser, Ph.D., has been named the 14th Piper Professor award recipient for UTEP.

The Minnie Stevens Piper Foundation in San Antonio established its award in 1958 to honor professors for their dedication to teaching and their community. Every May, the foundation selects 10 winners from among all two- and four-year colleges and universities in Texas.

The Piper Professor designation comes with a \$5,000 award.

"Not since winning a University of Texas System Board of Regents' Outstanding Teaching Award in 2011 have I been so excited to win an award and join such exclusive company at UTEP and statewide," Lesser said, noting that he took courses from Piper



Larry Lesser, Ph.D.

Professors at both The University of Texas at Austin, where he received his graduate degrees, and Rice University, where he completed his bachelor's degree.

"It is humbling to win what feels like a lifetime achievement award when I feel I still continue to grow as an educator," Lesser said. "I'm so grateful for the inspiration and support I've received over the years from my family as well as from my colleagues and students, especially at UTEP. Through my work as a professor and director of UTEP's Center for Excellence in Teaching and Learning, I try to pay the inspiration forward."

UTEP's Piper winners include faculty from philosophy, biological sciences, electrical engineering, English, economics and finance, teacher education, political science, metallurgical and materials engineering, and chemistry. Lesser is the second winner from mathematical sciences. - Lisa Y. Garibay



Visit utep.edu/magazine to see a video interview with Larry Lesser.



MOVED to Serve

Project MOVE Creates Learning Opportunity

Almost 1,500 Miners got up early on Feb. 27, 2016, to continue the tradition of serving El Paso as part of UTEP's seventh annual Project MOVE, which stands for Miner Opportunities for Volunteer Experiences.

The volunteers – mostly students – traveled to 60 job sites across the region to assist nonprofit organizations with projects that will enhance the lives of children, the elderly and everyone in between. They landscaped, painted, constructed mobility ramps, instructed young athletes, shared fire safety information, prepared community gardens and assisted in general cleanup. Regardless of the assignment, the UTEP volunteers brought energy and enthusiasm to their tasks.

Project MOVE is one of many UTEP community service projects throughout the year that provide opportunities to directly or indirectly assist residents in the region. According to the latest figures available, UTEP volunteers recorded 808,165 hours of community service in 2014 valued at more than \$18 million.

The goal of events such as Project MOVE is to create more well-rounded students who are familiar with the needs of their community and its residents. UTEP organizers hope the volunteers recognize the value of community service and continue to be involved wherever their professional careers take them.

"It was very rewarding to me," said Leon Santoyo, a senior criminal justice major and former Marine who was among a team of military-affiliated students who helped beautify and reorganize the USO at Fort Bliss. "I know we made a difference." -Daniel Perez



Visit utep.edu/magazine to see a Project MOVE video.

MAA presents Meritorious Service Awards, on the recommendation of the Sections, for service at the national level or for service to a Section. Each Section chooses a candidate for this award, once every five years.

At MathFest this year, Tom Gruszka, of the Southwestern Section and Western New Mexico University, received a Meritorious Service award.

Tom has contributed to the Southwestern Section for many years – he has served as Governor twice, Section Chair, was the newsletter editor for over 10 years (this was before electronic newsletters, so he enlisted students to help get the newsletters ready to mail and the students had a pizza party while doing so!).

While at the Section meeting not only will you see Tom, but he usually brings several students.

When you see Tom, at the MAA Southwestern Section Conference in April 2017, be sure to congratulate him on his MAA award!



News From El Paso

With financial support from the Prudential Foundation, El Paso Community College has convened Math and Informational Technology content experts and educational leaders from the University of Texas at El Paso and the El Paso Independent School District to form the Prudential Math/IT taskforce.

The purpose of this long-term effort is to identify ways to strengthen and support the quality and efficacy of Math/IT instruction in El Paso schools. The task force collaborated on a gap analysis to identify acute needs in Math and IT instruction and learning, including potential disconnects between secondary and post-secondary student/course objectives, career literacy levels, and opportunities for applied learning.

In this next year, using information gathered through the gap analysis, the taskforce plans to design and implement programs for high school students and teachers to support deeper academic and career engagement within Math and IT. These student programs will be focused on strengthening the academic and experiential learning pipeline for students interested in pursuing Math/IT pathways in post-secondary and career choices. The teacher program will focus on high quality professional development, including the implementation of Math Circles, to help middle and high school teachers engage students in deeper learning and meaningful applications of math.



The 2015 CUPM Curriculum Guide and You

By Martha J. Siegel, Chair, Committee on the Undergraduate Program in Mathematics

MAA's Committee on the Undergraduate Program in Mathematics (CUPM) recently published the *2015 CUPM Curriculum Guide to Majors in the Mathematical Sciences*, which you will find online at www.maa.org/cupm. With the support of NSF and the Educational Advancement Foundation, and the contributions of more than 200 mathematicians and scientists, CUPM presents the *Guide* in several parts to the mathematical community. The printed version, available (free) in paper from the MAA, covers the Introduction and the Overview and several essays on the common elements of the major in mathematical sciences. This includes the recommendations of the central cognitive and content goals of any mathematics major program. Many focus groups and open discussions refined these and led to broad consensus. Note that the committee chose to be inclusive and to extend its recommendations to the great variety of major programs within mathematics. Some of these are traditional majors, some of them are traditional and modern tracks within the major and others are undergraduate programs such as data science, statistics, and actuarial mathematics that might be considered majors in their own right.

The second and third parts of the *2015 Guide* are online only. These are the Course Study Group reports and the Program Study Group reports. In the Course Study Group reports, small groups of 4-6 people were asked to write about particular courses that are common to the mathematics curriculum, such as Real Analysis, Abstract Algebra, Data Analysis, etc. Each report presents several ways to treat the subject area with sample syllabi and possible textbooks. The Program Area reports were written by faculty and practitioners who were able to make recommendations on how to start and expand interdisciplinary and innovative programs from several courses to a full major program. CUPM plans to update the course and program reports by cycling through them in review on a regular schedule. Thus, every five years, we should have reviewed and augmented all the parts of the *Guide*. We are seeking input from the community as we review each section. Descriptions of new undergraduate mathematics courses that are not covered by the *Guide* are welcome.

Carol Schumacher and Martha Siegel have prepared two PowerPoint presentations (one with narrative and one without) for use by MAA Sections or individual departments. Sections will have access through the MAA server. Our hope is that Section officers and visitors to Section meetings, such as MAA officers or editors, will be able to use the PowerPoint slides to generate discussions at meetings. CUPM members in the Sections are also available to supplement discussions of the recommendations and the information contained in the *Guide*.

As many MAA members are aware, the Committee on the Teaching of Undergraduate Mathematics is preparing a guide to instructional practices in undergraduate mathematics. Many of the curriculum recommendations of CUPM were made with the understanding that innovative teaching and research-based pedagogy will play an important role in their implementation and effectiveness.

CUPM urges Section officers to devote some time at meetings to a discussion of the *Guide*. Members of CUPM and members of the Steering Committee for this project are excellent sources of information. Their names are contained in the forward to the Introduction and the Overview. In addition, a brochure for the *Guide* (at www.maa.org/cupm) should be made available for Section meetings. It contains a list of the cognitive and content goals and describes the areas covered so far by the course and program study groups. Questions and suggestions should be directed to msiegel@towson.edu.

From the MAA Intersection Fall 2016 Newsletter

MAA SW Section Spring 2017 Conference

The MAA Southwestern Section's 2017 spring conference will be held April 7 – 8th in Las Cruces, NM at Dona Ana Community College. It will be a joint meeting with the New Mexico Mathematical Association for Two-Year Colleges (NMMATYC), which will be celebrating 28 years of Mathematics Education! The year's keynote address will



be given by Dr. Stephen Kennedy. Stephen completed his undergraduate work at Boston University and earned his MA and PhD at Northwestern University. He has been at Carleton College since 1994 and serves as Professor of Mathematics. Stephen is also the current Senior Acquisitions Editor of MAA Books.



For details please see the conference website

<https://sites.google.com/site/nmmatyc2017/home>

If you have any questions, feel free to contact this year's conference chair, Adrian Delgado at

Future MAA SW Section Conference Schedule:

Spring 2018: Conference in Yuma, AZ (with ArizMATYC)

Chair: Dahwei Chang, Dahwei.Chang@azwestern.edu

Spring 2019: Conference most likely in Silver City, NM

MAA Southwestern Section's New Officers:

New Webmaster: Kweiman Yang (she teaches at

Arizona Western College)

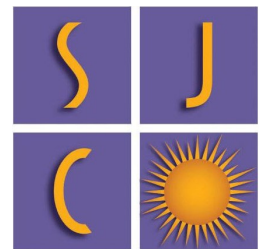
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News from San Juan College

The 2016 Discovery Festival was a great and successful event. Businesses from around San Juan County were there to show off the math and science used in their respective field.



The School of Science, Math and Engineering at San Juan College ran a booth to showcase the relationship between golf and mathematics. Putting variation was determined by using the Tangent function and the face angle at impact when trying to make an 8 foot putt. Other activities were to estimate the volume of a golf ball using water displacement and estimating the number of dimples by using the surface area of a sphere formula."

Nominations Wanted for Distinguished Teaching Award

Nominations are wanted for the Southwestern Section's Teaching Award to be given next April, at our section meeting. This will be a joint meeting with NMSU as the university host, and NMMATYC. The conference will be held at Dona Ana Community College, April 7 and 8. There are excellent teachers in our section that should be recognized for their work!

Last year, in Flagstaff, Dana Ernst, from Northern Arizona University, received our distinguished teaching award.

We are now seeking nominations for this award, to be given at the Spring conference!!!

The SW section asks that you complete the same nomination form that is used for the national Haimo award, and our section's "distinguished teacher" nomination will be forwarded to the MAA for consideration for the Haimo award. A committee from our section will look at all nominations submitted for the SW Section award, and determine our section's nominee for the Haimo Award. Completing the forms and submitting the necessary documentation is now much easier – PDF files can be submitted (no need to use "snail mail").

With the permission of the person making the nomination, the nominated people who were not selected will again be considered for this honor next year (with the opportunity to update their nomination, if so desired).

Our section has had two of our nominees for the Haimo Award win this award: Deborah Hughes-Hallett, University of Arizona, won in 2004 and David Pengelley, New Mexico State University, won in 2008. It's time for another winner!!!

You can go to <http://www.maa.org/Awards/haimo.html> to find out more about the award, the eligibility requirements, and the materials that need to be submitted with the nomination. Any person may nominate someone for the award, but the person nominated must be a MAA member (self-nomination is not permitted). The completed nomination packet must be received by Joanne Peebles no later than January 31, 2016, she would appreciate it if you would let her know in December (or earlier) if you plan to nominate someone. The completed nomination packet should be mailed to Joanne at 6917 Orizaba Ave., El Paso, TX 79912 – or – do it the easy way, and send the packet by email. . If you have questions you can email me at: joanep@epcc.edu or call 915.831.5047. —*Joanne Peebles, El Paso*

Articles for the Spring Newsletter

Why wait until the last minute? As interesting events occur at your school, email your updates while the memories are still fresh. Articles for Spring are welcome at any time, and photos are especially fun. Email your articles, comments, photos, or updates to the editor, Lisa Ruffier, ruffierl@sanjuancollege.edu.