

MAHTEMATICS ASSOCIATION OF AMERICA SOUTHWESTERN SECTION



VOLUME 28 ISSUE I

FALL 2014

GOVERNOR'S REPORT, MAA BOARD MEETING, AUG 5, 2014, PORTLAND, OREGON

There was record attendance at MathFest and it is expected that the next MathFest, at which the hundredth anniversary of the MAA founding will be celebrated, will be even larger. An extra day is being added to the 2015 MathFest. The Southwestern Section is also planning on celebrating this event and we hope that you will join us in El Paso on April 18, 19, 2015. I would appreciate any suggestions that you might have as to how to commemorate this event at our section meeting.

<u>CBML</u>: Many of us have used the CBML, on the AMS site. The MAA will no longer be supporting this site and it may be going away. However, the MAA has added this feature to the MAA website.: <u>http://www.maa.org/membership/combined-membership-list</u> In order to use this feature you will need to login as a member of the MAA.

As you know the MAA has many committees and it is always looking for MAA members who have an interest in serving on these important committees. Here is a link to the Council and Committees List: http://www.maa.org/about-maa/governance/council-and-committees-list.

You can browse through the list to look at the committees and its members. If you have an interest in serving on a committee let me know.

<u>Videos on the MAA website</u>: A feature of the MAA website gave me an idea for our math club. If you look at the following website of the MAA,

http://www.maa.org/meetings/calendar-events/maa-distinguished-lecture-series/lecture-videos, it contains short videos on a variety of mathematical topics. I am going to suggest that our math club use this site as a launch to their meetings. I will suggest at least one member of the math club select a video, view it beforehand, think about the topic, and lead a discussion at the math club. In fact, if we could get some math clubs started doing this, I suggest that we invite some of these math clubs to give a presentation at our next section meeting.

<u>Prizes and Awards</u>: Our section has many members whose work is worthy of recognition. The MAA has a number of awards and prizes: <u>http://www.maa.org/programs/maa-awards</u> Think about nominating someone from our section for recognition.

<u>MAA Governance</u>: The MAA board is a large body. There was some discussion about restructuring the board to make it smaller. The discussions were preliminary but perhaps we will see come change in the next couple of years.

<u>Budget</u>: The MAA is still operating in the red but it is not as bad as before. Through hard work the MAA has been able to obtain more funded grants and this certainly helps the bottom line. Projections are that by 2016, the MAA will be able to operate in the black. One aspect in which MAA members could help improve the budget of the MAA is to consider adopting MAA books for their courses. Here is a website that contains a list of MAA textbooks. <u>http://www.maa.org/publications/textbooks</u>

<u>Internationalizing the MAA</u>: The MAA has a focus on undergraduate issues of mathematics education. As such the MAA could serve as a resource to other countries in issues dealing with undergraduates.

<u>CUPM</u>: The MAA's Committee on the Undergraduate Program in Mathematics (CUPM) is charged with making recommendations to guide mathematics departments in designing curricula for their undergraduate students. http://www.maa.org/programs/faculty-and-departments/curriculum-department-guidelinesrecommendations/cupm. The last CUPM guide came one in 2004. The next one is scheduled for 2015.

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, a joint meeting with UTEP as the university host and El Paso Community College the NMMATYC host. There are excellent teachers in our section that should be recognized for their work!

Last year, at our meeting at Paradise Community College in Arizona, Kien Lim, who teaches at UTEP, received our distinguished teaching award.





Above is a picture of Kien with his department chair, Maria Mariani. Kien was nominated by Art Duval, UTEP (Thank you Art!) Kien is an exceptional teacher, and organizes a Teacher Teaching Teachers workshop each year.

The SW section asks that you complete the same nomination form that is used for the national Haimo award; our section's "distinguished teacher" 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. a member of the SW Section (self-nomination is not permitted). The completed nomination packet must be received by Joanne Peeples no later than January 31, 2015. 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: joannep@epcc.edu or call 915.831.5047. —Joanne Peeples, El Paso

MATHEMATICAL ASSOCIATION OF AMERICA CELEBRATING A CENTURY OF ADVANCING MATHEMATICS

Preparing for the Upcoming Centennial of the Mathematical Association of America

We sincerely hope this is not the first time you've heard this, but 2015 marks the Centennial of the MAA! For many of you, your first contact with the Centennial Celebration will be through your own spring (except Iowa) section meetings. What can you do to celebrate? Here are a few ideas!

We will provide you with the link to a 13-minute celebratory Centennial Video for the MAA. This video will open the 2015 Centennial MAA MathFest meeting, but since not all members of your section will be able to make it, we would like you to show it once at your spring meeting, and then throw away the URL until it's big release at the Centennial MAA MathFest.

Finish/update your section histories if they are not already in good shape. There will likely exist a contributed paper session on section histories at the Centennial MAA MathFest, if you are working on yours that would make a nice venue for dissemination.

Display historical documents from the founding of your own section, or historical documents from institutions in your section.

Serve birthday cake; provide your colleagues with party hats and noisemakers.

Take photos of your section celebrating the MAA's Centennial, and send a few to Maia Henley (mhenley@maa.org) who will post them on the Centennial Webpage.

Ask your section historian to present his/her findings.

Create a math Jeopardy game with a Centennial theme.

Design section t-shirts to wear at the Centennial MAA MathFest.

A Centennial Logo exists, and you can use it for a t-shirt, banner, or letterhead. Access it at the MAA's graphics library: http://www.maa.org/maa-graphics-library; keep in mind these guidelines:

Minimum logo size with and without tagline is 2.25 inches in width

Maintain an even amount of white space around the logo

It is incorrect to change the proportions or skew any element of the logo for any reason

The logo should only be used in its full color (PMS 286 & 158), PMS 286, black, or reversed out in white

Encourage your colleagues to take part in a contest which helps support the MAA by making contributions to the MAA's Second Century Fund (through this fall's mailing, or online at maa.org). The section with the largest percentage of members contributing and the section contributing the most overall will win prizes. Donate in the name of the founders of your section. Donate in the names of respected members of your section. Donate to name a Project NExT fellow after your section. Just donate and celebrate the MAA!

Throughout the year check out the content on MAA Online's Centennial page, which will include interviews, historical articles, and section histories.

The celebrations will culminate in an extra-long MAA MathFest, August 5-8, 2015 in Washington DC. (The MathFest was so packed that we added a day to its length!) We hope to see a much larger than usual turnout to help us celebrate, so please encourage your colleagues to attend. Attendees of this joint meeting with the Canadian Society for the History and Philosophy of Mathematics and the British Society for the History of Mathematics will enjoy:

Headline Centennial Lecturers: Manjul Bhargava, Carlos Castillo-Chavez, Jennifer Chayes, Ingrid Daubechies, Erik Demaine, Karen Parshall, joining the usual slate full of minicourses, invited and contributed paper sessions, panels, undergraduate activities, etc.

A parade of section flags at the opening reception

An evening of vaudeville including a juggler, magician, card tricks, mime, ...

An evening of music

An evening of mathematical theater

A closing banquet with the MAA Players

How should your section prepare for the Centennial MAA MathFest?

Encourage members of your section to come and bring their families! Washington DC is a fantastic destination for young and old alike. Turn MAA MathFest into a family vacation.

Section flags will be provided by the MAA office in DC. You will not need to bring a section flag with you.

There will be a march of section flags around 7 p.m. on Wednesday, August 5, 2015; your section should designate someone to be the official Flag Bearer; watch for details about how to participate.

Show your section spirit in your own way! Wear a section t-shirt, challenge other sections to a game, plan a section reunion at MAA MathFest. - Deanna Haunsperger and Steve Kennedy, dhaunspe@carleton.edu and skennedy@carleton.edu

The University of Texas at El Paso

The Department continues to grow, with the last five years yielding nearly 350 peer-reviewed publications and \$23 million in grants. Our faculty continue to receive prestigious awards in scholarship, grantsmanship, and teaching. For example, Dr. Amy Wagler became the fifth member of the Department in six years to win a \$25,000 UT System Regents' Outstanding Teaching Award based on multi-level review of a 150-page dossier. Also, at our Section's 2014 meeting, Dr. Kien Lim was announced the winner of our MAA section's Award for Distinguished College or University Teaching of Mathematics, our Department's third winner of this award since 2010.

Department faculty have also been extremely active in organizing recent conferences, including the 5th annual Modeling High Frequency Data in Finance Conference, the 2014 International Sun Conference on Teaching and Learning, and the fall 2014 Teachers Teaching Teachers Workshop. El Paso will also be the site of two regional conferences this spring: SUnMaRC (Feb. 27-March 1, 2015) and our MAA section's joint meeting with NMMATYC (April 18-19, 2015). Dr. Art Duval is a contributing editor to a new blog from the American Mathematical Society, *On Teaching and Learning Mathematics*: <u>http://</u> <u>blogs.ams.org/matheducation/</u>, which addresses varied topics on teaching and learning mathematics at all grade levels.

The Department also has many accomplishments associated with its students. For the second year in a row, UTEP's undergraduate team ranked in the top quarter on the William Lowell Putnam Mathematical Competition. Statistics major Raymond Ford presented a poster that won the Best Poster award in the Basic Research category at the 2014 International Symposium on Bioinformatics: Medical Applications. Also, UTEP was ranked #1 by *Diverse Education* for Mathematics and Statistics degrees conferred to Hispanic students both for undergraduate and master's degrees. – *Larry Lesser*

New Mexico Institute of Mining and Technology

Our longtime colleague Dr. Steve Schaeffer retired this year. He had been with our mathematics department for 27 years.

We have a new visiting assistant professor this year, Michael Maroun. Dr. Maroun has Ph.D in Theoretical and Mathematical Physics from the University of California Riverside, and worked there for a year as a visiting assistant researcher in the mathematics department. His areas of interest and research are Mathematical Physics, Spectra of Schrodinger Operators, Distribution Theory, Functional Analysis, Mathematical Quantum Field Theory, and Feynman Integrals.

We are advertising for a new tenure track position. The ad can be seen here: <u>http://www.mathjobs.org/jobs/jobs/6309</u>

Several masters students successfully defended their theses:

Andrew Krause "Asymptotic Dynamics of Stochastic p-Laplace Equations on Unbounded Domains" Ian Burch "Dynamics of Second Order Non-Linear Oscillator Systems".

Benjamin Buckman "Calculation of Heat Determinant Coefficients for Scalar Operators".

Qian Wu and Bruce Wallin also defended their master thesis.

For the second year in a row, one of our math modeling team scored "Meritorious Winner" status in the Mathematical Contest in Modeling (COMAP).

We will be reviving our problems workshop, where the mathematics faculty solicits mathematically oriented "back shelf" projects from other departments, then spends a weekend solving them (or trying to!) - John Starrett

Northern Arizona University

Northern Arizona University has a new president, Rita Cheng, who most recently was chancellor of Southern Illinois University. Before that, she spent 22 years at the University of Wisconsin-Milwaukee, including five years as provost and vice chancellor for academic affairs. The Department of Mathematics & Statistics has a new chair, Michael Falk, a long-time faculty member in the department. NAU is currently constructing a new building that will hold our Lumberjack Mathematics Center (LMC). The LMC delivers courses up through precalculus and our general education mathematics course, taught using a variety of hybrid styles with lab components in a modified emporium model. Steve Wilson retired and Janet McShane moved to New York to take on the chair position at Manhattan College. Enrollment on the Flagstaff campus of NAU exceeds 20,000 this fall for the first time. Our graduate programs have grown along with the university -- the department has 38 graduate teaching assistants this fall. - John Hagood

Webmaster Needed!

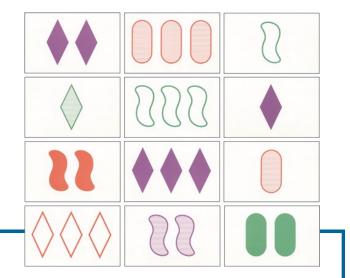
Our section webmaster has moved to Colorado, so Allen is no longer in our section and we need a webmaster. You can find a job description at <u>http://sections.maa.org/southwestern/</u> <u>news/jobopenings.html</u> Allen is willing to help you get started, should you volunteer. The web site is up and going, so the main thing you would need to do is to keep it up to date.

San Juan College

San Juan College is collaborating with Fort Lewis College in Southern Colorado on an NSF STEP grant aimed at increasing the number of students graduating with a 4-year STEM degree, with exposing undergraduates to research as part of the strategy. This last summer, Janet (Cinnamon) Hobbs, an SJC math major, was selected to explore the mathematics embedded in the card game Set, partnered with Laura Joy Healey (FLC) and under the supervision of Dr Veronika Furst (FLC). Beyond the obvious probability implications in the card game, Cinnamon found magic square correlations, correspondences with vectors and modular arithmetic, and proved several theorems involving the cards and results from the game. With luck and funding, you should be able to see their poster presentation and hear more about it at the Spring Conference, or contact Cinnamon directly for an electronic copy, at:

jrhobbs68@my.sanjuancollege.edu.

In other news, long time department member Vonda Rabuck retired in August. Additionally, our Math Education specialist, Jody Laughlin will be moving to Houston at the end of this semester.—Pam Peters



Spring Conference

April 18 and 19, in El Paso, TX. It will be a joint conference with NMMATYC. The web page should be up soon. We will be celebrating MAA's 100th birthday at the conference. Mark your calendars!