# Wisconsin Section Mathematical Association of America **NEWSLETTER**

# **Governor's Report** By Mark Snavely, Carthage College



The 2016 Joint Meetings in Seattle were a great success, with many outstanding events in a very nice location. If the meetings are convened in Seattle in the future, I highly recommend attending! Of course, I recommend attending the Joint Meetings *wherever* they are

held, but I found Seattle to be particularly enjoyable.

Important issues were addressed at the January 2016 meeting of the MAA Board of Governors. We approved a new governance structure for the MAA, and authorized the creation of a task force to determine what changes need to be made to the bylaws to implement this change.

Our current governance structure has a Board of Governors as the primary decision-making body, and an Executive Board that makes recommendations to the BOG. This has proven cumbersome at best, because few on the BOG have the expertise to evaluate the financial decisions recommended by the Executive Board. Under the proposed system, there would be a nine-member Board of Directors, and a larger body of approximately 45 members, which we are currently calling the Assembly (although there is some desire to rename this body). Every section of the MAA would have one member in the Assembly, and there would be 3-6 at-large representatives in the Assembly. The remaining Assembly members would be the members of the Board of Directors and the seven Council Chairs. (This is very similar to the composition of the current BOG.) The Board of Directors would be composed of the Officers of the MAA, together with three directors elected from the Assembly.

# Contents

Governor's Report	1
Chair's Report	2
Student Activities	3
Project NExT-Wisconsin	4
Contests	5
Candidate for Chair-Elect	5
Spring Meeting	6
Call for Speakers	8
Call for Student Speakers	9
Registration Form	10
Know Your Wisconsin Mathematician	11
Campus News	12
MAA-Wisconsin Executive Committee	13

Briefly, the BOD would be responsible for financial planning, asset management, *composing* strategic plans, and executive oversight. The Assembly would be responsible for *evaluating* and *approving* strategic plans, making recommendations to the BOD regarding MAA policies, and serving as a conduit to the sections on MAA matters.

As I see it, there are two main differences between our current structure and the proposed structure: (a) the financial decisions of the MAA would be made by the Board of Directors, not the Board of Governors; and (b) while Governors are considered board members voting in the best interests of the MAA and not really section representatives, members of the Assembly would be expected to represent the interests of their constituents. I will update you on the task force's progress in my fall newsletter report.

(Continued on next page.)

# Governor's Report (cont.)

In other matters, the MAA presents a number of awards, and nearly all of them would like to have more nominees! You can read more about these awards on the MAA website at

http://www.maa.org/programs/maa-awards. Please consider nominating worthy candidates from the

Wisconsin Section and beyond! The Wisconsin Section also would like more nominees for our Wisconsin Section teaching award. We know there are many great teachers in the state of Wisconsin – let's recognize their outstanding efforts!

The Wisconsin Section Spring Meeting is at UW-LaCrosse on April 22-23, and I hope to see you there.

# **Chair's Report**

# By Kavita Bhatia, UW-Marshfield/Wood County



I hope that 2016 is off to a great start!

The 84<sup>th</sup> Annual Spring meeting of the Wisconsin Section MAA will be held on April 22-23, 2016. My thanks to UW-La Crosse for hosting the event and to site coordinator **Eric Eager** for organizing the event. Our Chair-Elect

Jennifer Szydlik has put together an excellent slate of speakers for the meeting. They include William Dunham from Muhlenberg College, Betty Mayfield from Hood College and John Beam from UW-Oshkosh. (Abstracts of their talks are available elsewhere in this issue.) John Beam was the winner of the Distinguished Teaching Award last year. Please consider participating in the meeting by volunteering to give a presentation of your own and/or sponsoring a talk by one of your students. Talks on mathematics, pedagogy, history, SOTL, and applications of mathematics are welcome and appreciated. You can submit an abstract by clicking on "Speaker Registration Form" or "Student Speaker Registration Form" at

http://sections.maa.org/wisconsin/meetings.shtml. I especially encourage you to tell your students about *Face Off!*, our section's very successful math game show. Your participation is what makes our meeting so successful. In this newsletter you can also find information about the meeting details (hotels, parking, etc).

At the Spring Meeting, on Saturday morning, we'll hold our annual business meeting. Among other things, we will vote on the location of next year's meeting and hold the election of our new Chair-Elect. The nominating committee has selected **Kirthi Premadasa**, of UW-Baraboo/Sauk County, as its nominee for this position. I thank Kirthi for his willingness to serve in this role. At the same time, **Thomas Drucker**, of UW-Whitewater, will finish his term as Immediate Past Chair. Please join me in congratulating Thomas, and thanking him for his years of service on the Section's Executive Board.

(Continued on next page.)

Nominations for Chair-Elect The Executive Committee of the MAA-Wisconsin Section seeks nominations for **Chair-Elect** for 2017 (and beyond). This is a three-year position. The Chair-Elect organizes the spring meeting. The following year, the Chair-Elect becomes chair, and presides at each meeting of the Section and of the Executive Committee of the Section, as well as appointing committees and Executive Committee members as needed. The final year, the Immediate Past Chair continues to sit on the Executive Committee, and oversees the selection of the Distinguished Teaching award recipient.

Send nominations to Section Chair Kavita Bhatia at kavita.bhatia@uwc.edu. Self-nominations are encouraged. Section officers must be members of the MAA.

## Chair's Report (cont.)

At the meeting we will announce the winner of this year's Wisconsin Section Distinguished Teaching Award! It is not too soon to consider nominating a colleague for next year's award. The process is simple, and it is an opportunity for you to recognize the talented and dynamic teachers of our section. The nomination form can be found at

#### http://sections.maa.org/wisconsin/award.shtml.

If you are looking for service opportunities, the MAA is looking for volunteers interested in serving on their committees. You can find more information about that at <u>http://www.maa.org/news/maa-committees-</u> your-opportunity-to-g-i-ve-back-to-our-community The Wisconsin Section is looking for a liaison to the Association for Women in Mathematics (AWM). If you are a member of AWM and are interested in serving in this role please contact me. Liaisons are expected to attend the Executive Committee meetings held approximately twice a year.

I would like to thank you for the opportunity to serve as the Chair of the Wisconsin Section. Last but not the least I would like to thank the Executive Board of the MAA Wisconsin Section for their dedication and service. It has been an honor to chair such a distinguished group of professional mathematicians.

See you all at the Spring Meeting at La Crosse this April.

# **Student Activities**

#### By McKenzie Lamb, Ripon College

As Coordinator of Student Activities, I am pleased to report on upcoming opportunities for students around the state and elsewhere.

#### The Wisconsin MAA Section Meeting will be held April $22^{nd}$ and $23^{rd}$ at

UW-La Crosse. As always, the meeting will be an excellent venue for student talks. After a record number of student talks at Ripon College last spring, we hope to get even more this year. The deadline to submit abstracts in March 15<sup>th</sup>. Local organizers are also planning several student-centered initiatives, including a student retreat room, a scavenger hunt, and a student panel. The meeting is shaping up to be an excellent experience for students, and faculty should encourage and

help their students to attend.

As noted in the fall newsletter, **Ken Price** and **Steve Szydlik** of UW-Oshkosh will host the mathematical quiz show *Face Off!*. Students who have taken Calc I or above are eligible to compete for their department in teams of 2 to 4 players. Up to ten teams can compete. Please contact Ken (pricek@uwosh.edu) or Steve (szydliks@uwosh.edu) to register a team. For more information, visit the Face Off webpage at <u>http://www.uwosh.edu/faculty\_staff/szydliks/faceoff.htm</u>.

MathFest will be held in Columbus, Ohio, this year on August  $3-6^{th}$ . The deadline for submission of abstracts is May  $1^{st}$ . More details can be found on the MAA's website at <u>www.maa.org</u>.

Finally, the Wisconsin Mathematics Council's 48<sup>th</sup> Annual Green Lake Conference will be held May 4-6<sup>th</sup>, 2016. Anyone who is interested in mathematics education should consider attending.

#### Distinguished Teaching Award

The Wisconsin Section Distinguished Teaching Award was established in 1991. It stands as a concrete statement that mathematicians at the college and universities in Wisconsin place high importance on teaching. The Wisconsin Section is proud of its growing list of award recipients. These men and women of mathematics who have been recognized for their excellent work as teachers represent the commitment to teaching that exists among mathematicians throughout the state.

Nominations for the 2017 Wisconsin Section Distinguished Teaching Award are now being accepted. The nomination form and instructions are available on the MAA-Wisconsin web site at <u>http://sections.maa.org/wisconsin/award.shtml</u>

# **Project NExT-Wisconsin** By Eric Eager, UW-La Crosse



#### 2015 Fall Conference

The 2015 Project NExT–Wisconsin fall conference was held on November 7-8th at the University of Wisconsin– Baraboo/Sauk County. We were pleased to have two external presenters, **T.J. Hitchmann** 

(University of Northern Iowa) and **Thomas Drucker** (UW-Whitewater). The conference had three themes: The scholarship of teaching and learning, implementing the history of mathematics into introductory courses, and specifications/standards-based grading schemes.

The conference started with current MAA President **Francis Su** addressing the group via Skype. Su talked

### **Business Meeting**

The following resolution will be introduced at the business meeting on Saturday morning:

"Members and invited guests of the MAA-Wisconsin Executive Committee will be allowed to request and receive reimbursement from the Section at the State Rate for mileage to and from Executive Committee meetings."

Rationale: Many faculty and staff (particularly Assistant Professors) are finding that they must do more with less financial support, and some travel several hours to and from scheduled meetings. Executive Committee members have already donated time and expertise, they should not also be asked to fund their travel to Executive Committee meetings.

If you have an opinion on this resolution, be sure to come to the business meeting.

about the opportunities for service within the MAA, as well as the resources that the MAA provides faculty at all stages of their career. Hitchmann then discussed standards-based grading with the group of about 12 participants. This elicited a lively discussion among the faculty members about the reasons to implement a nontraditional grading scheme and the feasibility and eventual application of such schemes into courses ranging from remedial mathematics to courses taken by mathematics majors.

About six participants gave talks on the evening of November 7<sup>th</sup> in our contributed paper session. These talks ranged from the exploration of lesson study techniques in a Calculus II course to the documentation of the experiences gained while reading AP statistics exams. Member participation is always high during this session, and this year's session was no exception.

On November 8, Drucker discussed how even a small study into the history of mathematics can have a substantial impact on one's teaching – in both lowerand upper-level mathematics courses. Drucker's deep knowledge of the discipline's history was appreciated by participants, who were very active in the discussion.

#### 2016 Spring Panel Discussion

Project NExT-Wisconsin will hold their spring panel discussion immediately following the second day of the 2016 MAA Wisconsin sectional meeting on April 23, 2016 at UW-La Crosse. The spring panel will revolve around collaborative efforts to engage in the scholarship of teaching and learning broadly and the increase in overall teaching effectiveness specifically.

If you are interested in attending the spring panel, please request to join our Google group by emailing me at eeager@uwlax.edu

# **Contests** By Laura Schmidt, UW-Stout

#### **American Mathematics Competitions**



The AMC 8 competition was held on November 17, 2015. A total of 959 Wisconsin students participated in the competition, a significant drop from previous years of about 1,300. No students received a perfect score from Wisconsin. The average score for Wisconsin students was 8.38,

compared with the national U.S. average score of 8.18. The gap between Wisconsin and US scores has narrowed in past years, and this year Wisconsin has outperformed the US average! This is a great trend for our Wisconsin students.

The AMC 10 and 12 contests will be held on February 2 and 17, 2016. Data will be reported at the Spring Meeting.

# **Candidate for Chair-Elect** *Kirthi Premadasa*

**Kirthi Premadasa** obtained his Ph.D. in Algebraic Topology from Purdue University and had his early education in his native country Sri Lanka. He has taught at University of Colombo, Sri Lanka, and chaired its math department in 2003. He also taught at University of Wisconsin-Whitewater as a visiting professor in 2007 and joined University of Wisconsin Colleges in 2008. He is currently an Associate Professor of Mathematics at UW-Baraboo/Sauk County and is the vice-chair of the UW-Colleges Math Department.

Dr. Premadasa obtained state-wide recognition for teaching when he was selected for the Chancellor Award for Teaching Excellence from among the thirteen campuses of UW-Colleges in 2012 and when he was awarded the Alliant Underkofler Excellence in Teaching Award in 2013. He is also a Wisconsin Teaching Fellow.

The scholarship of teaching and learning, undergraduate mathematics education and

# MAA-Wisconsin Section High School Contest Examination

The Section contest examination was given on Thursday, December 3<sup>rd</sup>, 2015. There were 44 schools reporting scores this year for a total of 1,597 students, similar to last year's numbers. The cutoff for the top 1% was a score of 90 out of 120 this year. There were no perfect scores this year.

Jay Beder, from University of Wisconsin–Milwaukee, directed the contest this year for their third year as hosts. This year we updated to an electronic distribution of the exam and related materials. Many thanks to him, University of Wisconsin–Milwaukee, and the test committee for all their hard work. If anyone would like to volunteer to help the test committee please send an email to <u>beder@uwm.edu</u>.

mathematical modelling are the primary areas of Dr. Premadasa's current research. Additionally, he has a number of publications and conference presentations in these disciplines.

#### Local Hosts Needed

The spring Section meeting has no host committed for 2018 and beyond. If your institution would like to host the meeting, be sure to check out the Guidelines for Local Hosts at:

http://sections.maa.org/wisconsin/meetings.shtml

It is best if you begin planning two years before hosting.

# **Spring Meeting** *Program Highlights:*

#### Betty Mayfield, Hood College

Gerbert d'Aurillac and the March of Spain: A Guy in the Right Place at the Right Time

Gerbert was a tenth century scholar and churchman who eventually was named Pope Sylvester II. In the Year 1000, he probably knew more mathematics than anyone else in Europe. We'll explore how that came to be.

#### John Beam, UW-Oshkosh

#### Math in the Movies

John Beam combines two of his loves: mathematics and movies! We'll explore through examples why we should hope for filmmakers to understand a little math.

William Dunham, George Pólya Lecturer (Mathematical Association of America)

#### Two (More) Morsels from Euler

Leonhard Euler (1707 – 1783) is responsible for a stunning array of famous theorems, formulas, and concepts. In this talk we examine a pair of lesser-known results where his genius was on full display.

#### Map and Directions:

Directions to UWL can be found at <u>http://tinyurl.com/uwl-visit-directions.</u>

#### Parking

Most events will be held in Cartwright Center (building 15) and Centennial Hall (building 16) as indicated on the campus map at <u>http://www.uwlax.edu/map/</u>. You are permitted to park in any **commuter** parking lot on campus, as well as levels 1-3 of the parking ramp, with

no permit required (residential parking lots are monitored and ticketed without permit). Commuter lots on the campus map are marked C-1 through C-11, as well as Parking Ramp. Note lots C-1, C-8, and C-9 will be closed for construction. The most convenient lots will be C-2, C-10, and levels 1-3 of the parking ramp.

# Lodging Information

Blocks of rooms have been reserved (until March 22nd) at the following hotels in La Crosse for Friday April 22 at the rates indicated. Mention "Math Association of America" when making reservations, unless otherwise specified.

Hampton Inn & Suites La Crosse Downtown (5 min by car)

#### http://tinyurl.com/uwl-hampton-downtown

(608) 791-4004 511 3<sup>rd</sup> Street N. La Crosse, WI 54601

\$89.00 (\$109 for double occupancy)

Holiday Inn Hotel & Suites La Crosse Downtown (6 min by car)

http://tinyurl.com/uwl-holidayinn-downtown

(608) 784-4444 200 Pearl Street La Crosse, WI 54601

\$89.00 (mention MAA when making reservations)

#### Candlewood Suites La Crosse (6 min by car)

#### http://tinyurl.com/uwl-candlewood

(608) 785-1110 56 Copeland Avenue La Crosse, WI 54603

\$89.00

## **Book Signing**

There will be an opportunity for William Dunham to sign copies of his books. At this point, it is not clear how many copies of his book will be available for sale. So raid your shelves and bring your copies of *Journey Through Genius, The Mathematical Universe, Euler: Master of Us All,* and *The Calculus Gallery* for him to sign!

#### Hampton Inn La Crosse/Onalaska (12 min by car)

#### http://tinyurl.com/uwl-hampton-onalaska

(608) 779-5000 308 Hampton Court Onalaska, WI 54650

\$89.00 (\$92.00 for double occupancy)

#### Best Western Riverfront (10 min by car)

#### http://tinyurl.com/uwl-bestwestern

(608) 781-7000 1835 Rose Street La Crosse, WI 54603

\$109.99

#### **Courtyard La Crosse Downtown** (8 min by car)

#### http://tinyurl.com/uwl-courtyard-downtown

(608) 782-1000 500 Front Street S. La Crosse, WI 54601

#### \$139.00

In addition, there are many other hotels in the area which do not have blocks reserved but could potentially have rooms available, including:

#### **Quality Inn**

#### http://tinyurl.com/uwl-qualityinn

(608) 781-1400 1820 Rose Street La Crosse, WI 54603

#### Seattle Inn and Suites

http://tinyurl.com/uwl-seattleinn

(608) 781-5100 2110 Rose Street La Crosse, WI 54602

#### Econo Lodge

http://tinyurl.com/uwl-econolodge

(608) 781-0200 1906 Rose Street La Crosse, WI 54603

#### Holiday Inn Express Onalaska

#### http://tinyurl.com/uwl-holidayinn-express

(608) 783-6555 9409 State Road 16 Onalaska, WI 54650

#### Food

There are many options for food, both within walking distance of campus, in the downtown area, and in Onalaska. More information can be found at the La Crosse Chamber of Commerce website <a href="http://www.explorelacrosse.com/where-to-eat-in-la-crosse/">http://www.explorelacrosse.com/where-to-eat-in-la-crosse/</a>.

#### Midwest Numerical Analysis Day 2016

UWL will be hosting the Midwest Numerical Analysis Day on the same weekend as the section meeting. All events will be held on Saturday April 23. For more information and registration visit http://tinyurl.com/uwl-mwnaday-2016.

MAA Book Sales at the Spring Meeting Support the Section and also get a great deal on books by ordering your MAA books through the spring meeting.

As in the past few years, around the time of the meeting, MAA members will be provided with a code that provides a 35% discount below the list price to meeting attendees. The code will also be available at the meeting, or by contacting Public Information Officer Ben Collins (collinbe@uwplatt.edu).

The Wisconsin Section earns a small percentage of all sales made through the meeting.

## **Call for Speakers**

84 <sup>th</sup> Annual Meeting	of MAA	Wisconsin	Section,	April 22	- 23, 2	2016
UW-La Crosse						

Talks of all kinds are welcome, particularly ones that are accessible to students, and we encourage talks by students.

If you wish to present a talk, please complete the form below and send by March 15, 2016, to Jen Szydlik (szydlik@uwosh.edu). Talks received after March 15 will be considered only as time and space permit.

An on-line version of this form is available at: http://sections.maa.org/wisconsin/meetings.shtml

(There is a separate form below for student speakers.)

Due	date:	March	15.	2016
Duc	aute.	i viui cii	тэ,	2010

Name:			
Institution:			
Phone:		Email:	
Title of talk:			
		or 50 minutes	
Abstract: (Sugge	sted length, 250 words	or less.)	

Check here if your talk is appropriate for undergraduate students: \_\_\_\_\_

All rooms have a whiteboard and/or blackboard, an opaque projector, and projector with a connection for a laptop computer. If you have other equipment needs, please describe them, and we will try to accommodate you.

Time preference:	Friday afternoon is	Imperative	Preferred
Saturday mor	ming is Imperative	Preferred	-
Either time is	acceptable		

# **Call for Student Speakers**

84 <sup>th</sup> Annual Meeting	of MAA	Wisconsin	Section,	April	22 -	23,	2016
UW-La Crosse							

The Wisconsin Section of the MAA encourages undergraduate students who have done research in mathematics to give a 25-minute presentation about their work at the Spring Meeting. Each presenting student receives free meeting registration. If you wish to present a talk, please complete the form below and send by March 15, 2016, to Jen Szydlik (szydlik@uwosh.edu).). Talks received after March 15 will be considered only as time and space permit.

An on-line version of this form is available at: http://sections.maa.org/wisconsin/meetings.shtml

Due date: March 15, 2016						
Primary Speaker:						
Name(s):						
Institution:						
Address:	Phone:					
	Email:					
Second Speaker: (If more than two	speakers, please include the appropriate information.)					
Name(s):						
Institution:						
Address:	Phone:					
	Email:					
Faculty Sponsor:						
Title of presentation:						
Brief description of presentation: (Se	uggested length, 250 words or less.)					
	r blackboard, an opaque projector, and projector with a connection for					
a laptop computer. If you have othe accommodate you.	er equipment needs, please describe them, and we will try to					
Time preference: Friday after	noon is Imperative Preferred					
Saturday morning is Imper	rative Preferred					
Either time is acceptable						

#### Page 10

## **Registration Form**

84<sup>th</sup> Annual Meeting of MAA Wisconsin Section, April 22 – 23, 2016 UW-La Crosse

Preregistration Deadline: April 1, 2016

You can also register on-line at:

#### http://sections.maa.org/wisconsin/registration\_form/index.html

NAME(S)\_\_\_\_

Address\_\_\_\_\_

Main contact e-mail:\_\_\_\_\_\_

Institution (for your name badge)\_\_\_\_\_

	Registratio		Banquet				
No.	Туре	Price*	Total \$	No.	Туре	Price**	Total \$
	MAA Member	\$20			Regular	\$20	
	Retired MAA Member	\$10			Student	\$5	
	K-12 Teacher	\$10		Banquet Total:			
	Student	FREE		Please indicate any dietary restriction (vegetarian, kosher, etc) and the num each.			
	Other	\$30					
	Registration Total:						

\*Registration after pre-registration deadline of April 1 will be \$30 for all except students, who will still be free.

\*\*Regular banquet tickets will be \$25 after the pre-registration deadline of April 1. Student banquet tickets remain \$5.

Total Enclosed:

For MAA Records, please indicate the number of the above registrants in each of the following categories:

\_\_\_\_\_ College or university faculty

\_\_\_\_\_ Business, industry, government

\_\_\_\_\_ High school teacher

\_\_\_\_\_ Undergraduate student

\_\_\_\_\_ Graduate student

#### Make checks payable to: MAA - WISCONSIN SECTION

Please submit to:

Jonathan Kane, Treasurer kanej@uww.edu

2814 Regent St.

Madison, WI 53705

# **Know Your Wisconsin Mathematician**

# Interview with Steffen Lempp, UW-Madison, by Thomas Drucker



#### Where did you grow up? I was born in Freudenstadt, Germany, and moved with my family to

Weinheim, Germany, when I was three.

Was there a time in your life when you discovered that mathematics was what

#### you wanted to do?

I started as a computer science major at the University of Karlsruhe, Germany, in my first (undergraduate) semester, but switched to math at the end of that semester since CS was "not theoretical enough" for me.

#### Where did you go as an undergraduate?

I spent two years in Karlsruhe and one year in Bonn before I got a Fulbright scholarship to become a college studentat-large at the University of Chicago. During my first year

there, I was offered admission to graduate school there, without ever getting an undergraduate degree.

# How did you choose logic as an area for specialization?

When I arrived at Chicago, I was undecided between algebra and logic. It was taking Bob Soare's class in computability theory that I became truly interested in that area.

# What was the influence of your family on your education?

My parents always encouraged to pursue me whatever interests I had.

# Are there any teachers who had influenced you to become a mathematician?

I had two very good math teachers around 8<sup>th</sup> to 11<sup>th</sup> grade who taught me precision. The rest of the class hated one of them especially, but he was great for me.

#### How did you end up at the University of Wisconsin?

I applied nationwide, and it was the best job that was offered to me.

# Can you please talk about what students have meant to you as a teacher and mathematician?

Students are sometimes great in that they let you explore a new area that you might not want to spend as much time learning yourself. I had a few of these. Other students teach you things you would never have thought of yourself. Those students are the most interesting!

#### What courses do you like to teach?

Apart from logic courses, I like to teach linear algebra and algebra, bridge proof courses, and elementary education math courses.

# Over the years, did you find that teaching of mathematics changed?

I have become more interactive (and less embarrassed when I make a mistake).

#### Where do you think mathematics is going, and then closely allied to that, where do you think it should go? It is very hard to predict where a field is going. Some

directions I see take off (like randomness) I find less

If you want to pursue research in mathematics, you need not only talent but total dedication; it will be very hard and frustrating most of the time. interesting and so stay away from more. Others I love (like computable model theory). Now that I don't depend on NSF support any more, I feel freer in choosing what I want to work on.

What do you think is the best part of being a mathematician? Being able to choose what problems to work on, and the freedom to travel to many places (since you have colleagues worldwide, and since

you have a lot of free time).

What was the worst part of teaching mathematics? Students complaining about their grades, and grading exams.

#### How would you describe what you did when you were talking to somebody outside of mathematics? Mathematics is about abstract structures that we explore using precise tools.

# What of your work do you like the best? What are you most proud of?

There are some papers I feel were the best work I did; some were long ago, some more recent. My longest paper was 144 pages for a single proof. It filled an entire issue of Advances in Math.

What is your advice to college students and new teachers? If you want to pursue research in mathematics, you need not only talent but total dedication; it will be very hard and frustrating most of the time.

# Campus News UW-Eau Claire By Chris Ahrendt

Dandrielle Lewis was selected as the 2016 recipient of the MAA's Henry Alder Award for distinguished teaching by a beginning college or university mathematics faculty member. She will receive this award at the 2016 MathFest in Columbus, OH. Dandrielle was also selected as the recipient of the UW System Outstanding Women of Color in Education Award which was presented during the Board of Regents meeting on October 9, 2015.

At the annual Joint Mathematics Meeting in Seattle this past January, *seventeen* UW-Eau Claire undergraduate students attended and presented posters or contributed talks on topics that stemmed from 11 different student/faculty research collaborations. The following are the posters that were presented at the MAA Undergraduate Poster Session:

**Hengzhou Liu** presented "The Equivalence Between the Polytabloid Bases and Specht Polynomials for Irreducible Representations of the Symmetric Group," which was completed with faculty advisor **Mike Howe**.

**Chris Magyar** presented "Mirror Symmetry from Reflexive Polytopes," which was completed with faculty advisor **Ursula Whitcher**.

Jeremy Nielsen presented "Are you getting your fair share of social security benefits?" which was completed with faculty advisor **Zhixin Yang**.

Austin Riedl, Hengzhou Liu, Dylan Magnani, and Chris Magyar presented "The Moduli Space of Complex 1|3dimensional Algebras," which completed with faculty advisor Michael Penkava. Do you have any other comments?

On balance, being a research mathematician is a great career!

Who is a Wisconsin Mathematician that you would like to know? Send suggestions for the next KYWM to Ben Collins, collinbe@uwplatt.edu.

#### Austin Riedl, Austin Holmes, and Mitchell Lemons

presented "Algebras Associated with the Hasse Graphs of Polytopes," which was completed with faculty advisor **Colleen Duffy**.

**Grant Roth** presented "Minimal Complexity Ccomplexes for Colored Links," which was completed with faculty advisor **Christopher Davis**.

Mitchell Paukner, Lucy Pepin, and Jarred Wieser presented "Pattern Avoidance in Task-Precedence Posets," which was completed with faculty advisor Manda Riehl.

**ML Tlachac** and **Matthew Tlachac** (University of Minnesota) presented "Statistical Analysis of Crime in Eau Claire, WI," which was completed with faculty advisor **Abra Brisbin**.

**Pedro Gomes Machado** presented "Associating Blood Pressure with SNP through Statistical Mapping," which was completed with faculty advisor **Abra Brisbin**.

**Danielle Brushaber** and **McKenzie Hennen** presented "Knot and Link Tricolorability," which was completed with faculty advisor **Carolyn Otto**.

Sara DeBrabander and Michelle Gebert presented "Lattice Point Visibility on Generalized Lines of Sights," which was completed with faculty advisor **aBa Mbirika**. This poster presentation earned the distinction "Outstanding Student Presenters" which is awarded to the top 15% of posters in each subject area.

Three faculty members also gave presentations in invited and contributed paper sessions at the JMM:

**Simei Tong** presented "Power of Mathematical Quilting."

**Rich Spindler** presented "Assessment and Rubrics for a Survey Project in an Elementary Statistics Course" and "A Math Student Circle in Rural Wisconsin."

**Ursula Whitcher** presented "Mirror symmetry and K3 surface zeta functions," and was a co-presenter for "Arithmetic Mirror Symmetry of K3 Surfaces and Hypergeometric Functions."

**Mike Howe** and **Rich Heeg** retired at the end of the fall semester. Mike joined the UW-Eau Claire math department in 1996and Rich joined the department in 1987.

# UW-Milwaukee

# By Jay H. Beder

UW-Milwaukee has been recognized by the Society of Actuaries (SOA) as a Center of Actuarial Excellence (CAE). The designation is awarded for a period of five years beginning January 6, 2016. The Department of Mathematical Sciences houses all of the University's actuarial programs: BA in Actuarial Science, MS in Mathematics (option in actuarial science), PhD in Mathematics (concentration in actuarial science). The SOA's evaluation committee noted the strong relationships that UWM faculty have with students, the "strong outcomes" (such as improved exam passing rates) achieved through a Northwestern Mutual gift, and its meeting the "mission of access" for students in the region.

The CAE designation is awarded to programs that meet rigorous requirements related to degree, curriculum, graduate count, faculty composition, graduate quality, appropriate integration, connection to industry, and research/scholarship. As of January 2016, there are 30 CAEs worldwide: 17 in the U.S., 8 in Canada, 3 in Australia, and 2 in Hong Kong.

# More information may be found at <u>https://www.soa.org/cae/</u>.

The 2016 Marden Lecture in Mathematics will take place on April 7, 2016 at 4:00PM in LUBAR N140. The speaker, **Eugenia Cheng**, is a Senior Lecturer (Pure Mathematics) at the University of Sheffield and a Scientist in Residence at the School of the Art Institute of Chicago. She is an expert in category theory and a classical pianist. Her talk, "How to Bake Pi: An Edible Exploration of the Mathematics of Mathematics," is also the title of her recent book (Basic Books). Further information will be posted in the News and Events link at <u>http://uwm.edu/math/</u>.

The Department will be celebrating the 50<sup>th</sup> anniversary of its graduate program this fall. The celebration is tentatively set for October 21-23, 2016. More information will be posted at our News and Events link (above) as it becomes available.

# **UW-Oshkosh** By John Beam

We look forward to a colloquium from one of our graduates. On February 22, **Eric Boll** will be giving a talk titled *Quadratic forms and partition numbers*.

## **UW-Platteville** By Benjamin V.C. Collins

# **Chris Frayer** (Mathematics) and **Anne-Marie Lerner** (Mechanical Engineering), have developed and facilitated a Learning Community for New Faculty and Academic Staff (NFLC) in the College of Engineering, Mathematics, and Science. Over the past two academic years the NFLC has been supported by an NSF STEP grant. The NFLC meets for one hour per week to address issues related to just-in-time orientation, community building, professional development, service, and teaching.

On March 27, 2015, the Mathematics Department organized the third UW-Platteville Mathematical Modeling Contest. Four teams of three students participated in the contest. Rules were similar to the rules of the international COMAP contests. All teams worked really hard and did a great job with presenting their ideas and solutions. The team with the best overall presentation and the best summary category was **Zen Abbey, Matthew Jones**, and **Jessica Symons**. Students in the second placed team were **Adam Bloedel, Landon Gauthier**, and **Kyle Kumbier**. We are planning the fourth contest from April 1<sup>st</sup> to April 4<sup>th</sup>, 2016.

## **UW-Stout** By Steve Deckelman

Chris Bendel, Greg Bard, Matt Corne, Andrei Ghenciu, Nelu Ghenciu and Noah Weiss presented at the annual Joint Mathematics Meetings of the Mathematical Association of America held Jan. 6-9 in Seattle. Steve Deckelman and Laura Schmidt participated in committee meetings.

**Greg Bard's** book, *Sage for Undergraduates* is available from the AMS bookstore, as is **Chris Bendel's** *Cohomology for Quantum Groups via the Geometry of Nullcone*.

#### **UW-Whitewater** By Thomas Drucker

Professor Emeritus **Jon Kane** reports that his book *How* to Write Proofs in Analysis will be published by Springer

this spring. It should be available by MathFest in Columbus in August, if you're looking for another reason to attend. It is especially designed for departments that use an analysis course as a vehicle for introducing students to the writing of proofs.

**Thomas Drucker** gave two talks at the joint meetings in Seattle in January. He spoke in a joint AMS-MAA session in the history of mathematics where his topic was programmes before computers. (It really didn't have anything to do with computer programming, but referred instead to the Erlangen Programme of Felix Klein and other subsequent programmatic efforts.) Then he spoke in the session sponsored by POMSIGMAA (of which he remains chair) on the best approach to real numbers in analysis courses. This gave him the chance to talk about Jon Kane's forthcoming text.

## MAA-Wisconsin Executive Committee

Governor	Mark Snavely, Carthage College
Chair	Kavita Bhatia, UW-Marshfield/Wood County
Secretary-Treasurer	Jonathan Kane, UW-Madison
Chair-Elect	Jennifer Szydlik, UW-Oshkosh
Immediate Past Chair	Thomas Drucker, UW-Whitewater
Math Contest Coordinator	Laura Schmidt, UW-Stout
Coordinator of Student Activities	McKenzie Lamb, Ripon College
MAA Representative to the Wisconsin Math Council	Wendy Meyer, Edgerton High School
Project NExT Director	Eric Eager, UW-La Crosse
Public Information Officer	Benjamin Collins, UW-Platteville