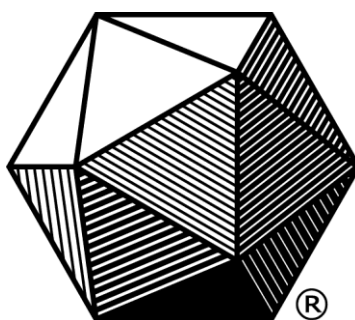


The Mathematical Association of America



Wisconsin Section Newsletter Fall 2014

Governor's Report

Thank you for giving me the privilege of serving as your Governor for the next three years. In August, I attended my first Board of Governors (BOG) meeting at MathFest 2014, in Portland, OR. I walked away from the meeting confident that the officers of the MAA are doing an exceptionally good job of caring for the organization and supporting the good work that we have been doing for many years. As Governor, one of my responsibilities is to report to you regarding the activities of our international organization.

The Centennial Celebration at MathFest 2015, August 5-8 in Washington DC, will be a monumental event. All of the usual sessions will be there, including Invited Addresses, Contributed Paper Sessions, and Minicourses, and there will be special events to highlight and celebrate our 100-year history. You will not want to miss this conference!

Probably the most vigorous debate at the BOG meeting took place as we discussed the best way to use our time at the BOG meetings. As this was my first such event, I did not have a perspective on the past, but I did appreciate the fact that we are discussing how to use the expertise on the BOG and minimize the amount of time we spend discussing or voting on issues which could be handled in other ways.

The Committee for Undergraduate Programs in Mathematics (CUPM) will issue the *2015 CUPM Curriculum Guide to Majors in the Mathematical Sciences* next year, and the BOG endorsed the cognitive and content recommendations presented in the guide. Expect more specific guidelines than those found in the 2004 CUPM guide, and we recommended that more effort be made to assess the influence and effectiveness of the document.

The MAA hopes to increase sales of MAA books and e-books, especially textbooks, and some excellent work is being done to that end. Please consider using MAA texts for your courses; they are exceptionally well-written and cost-effective as well.

Finally, the MAA honors many mathematicians through awards and lectures. A summary of the many opportunities to make others aware of the excellent speakers, teachers, and researchers among us is available at <http://www.maa.org/programs/maa-awards>. We have so many amazing colleagues in the Wisconsin Section – considering nominating one of them for an award! Of course, do not forget about our section teaching award as well.

Mark R. Snavelly, Carthage College

The History of the Wisconsin Section

The MAA-WI web page has been updated with information on the history of the section. A ten-page narrative has been added, as well as some summary information about the people who have served the section over the year and the dates and locations of the spring meeting. Check it out at:

<http://sections.maa.org/wisconsin/history.shtml>

If you have any additions, corrections, or questions, contact Public Information Officer Benjamin V.C. Collins: collinbe@uwplatt.edu.

While we were doing the research for those changes, we went through the MAA-Wisconsin archives, housed in the Special Collections at the Raynor Memorial Libraries at Marquette University. We found, to our chagrin, that a few documents were not saved. In particular, we are missing the following newsletters:

Spring 1994, Fall 1996, Spring 1997, Fall 1997, Spring 1998, Fall 1998, Fall 1999, Spring 2000

If you have a copy of one or more of these newsletters, please contact Public Information Officer Benjamin V.C. Collins: collinbe@uwplatt.edu.

Chair's Report

First, I'd like to thank the members of the Wisconsin section for having entrusted me with the position of Chair. Before going further I should also thank Ken Jewell (Immediate Past Chair) for having presided over the Executive Committee meeting this fall when I had to be out of town. Fortunately, Ken has practice enough running such meetings to guarantee that everything went off smoothly.

Next, I can encourage everyone to attend the annual meeting of the section at Ripon College the weekend of 24-25 April 2015. The Program Chair, Kavita Bhatia (UW-Marshfield/Wood County), has already lined up Jim Daniel and David Bressoud as speakers, but one of the essential features of the section meetings is the chance to hear from colleagues who do not often get to national meetings. If you have something to say, please come to Ripon. If your students have anything to say, encourage them to come as well. More details about the meeting will be in the spring newsletter, but it is never too early to start planning for the meeting.

On the topic of meetings, I should also like to thank all those who made the spring meeting at Whitewater this year such a success. Despite weather that would be called unseasonable most places except Wisconsin, the turnout was large and the program intellectually challenging. It would have been difficult to put the program together without the help of my colleagues Bala Pandiyan and Khyam Paneru, and many others at Whitewater helped with aspects ranging from technology to washing up afterwards. The three plenary talks by Dan Kalman (American University), Francis Su (Harvey Mudd and President-Elect of the MAA), and Stephen Stigler (University of Chicago) were well attended, and the Face-Off event drew quite a crowd.

Congratulations are due to my colleague Geetha Samaranayake for receiving the Wisconsin Section Distinguished Teaching Award. We were also glad to be able to recognize local teachers for the excellence of their teaching at the high school level. When Francis Su reported to the MAA on his visit to Whitewater, two items of which he made especial mention were the teaching awards and Face-Off. We are grateful to Ken Price and Steve Szydlik for having run the latter, and we are confident that McKenzie Lamb of Ripon will be their active successor in coordinating student activities for the section. Eric Eager (UW-LaCrosse) has lived up to his name in getting Project NExT-Wisconsin activities launched for the new academic year.

As Chair of the section, I have been fortunate to benefit from the generous investment of time on the part of other members of the Executive Committee. In addition to Ken Jewell's guidance, Jon Kane as Secretary-Treasurer and Benjamin Collins as Public Information Officer have made sure that deadlines are met and bills paid. I'd be delighted to hear from anyone with suggestions (and, just conceivably, complaints) at druckert@uww.edu. Have a good fall semester and we'll look forward to seeing you at Ripon in April!

Thomas Drucker, UW-Whitewater

Call for Nominations

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 2015 Wisconsin Section Distinguished Teaching Award are now being accepted. The nomination form and instructions are available on the MAA-Wisconsin web site at <http://sections.maa.org/wisconsin/award.shtml>

Contest Report

American Mathematics Competitions

The AMC 8 competition was held on November 19, 2013. A total of 1,373 Wisconsin students participated in the competition (close to 1,390 in 2012, down from 1,465 in 2011, 1,599 in 2010 and 1,477 in 2009). Two students received a perfect score from Wisconsin. Congratulations to L. Ma, an 8th grader from Jefferson Middle School in Madison and Z. Rossman, a 7th grader from Velma Hamilton Middle School in Madison. The average score for Wisconsin students was 9.62, compared with the national U.S. average score of 10.14. The gap has narrowed to .52 compared to .79, 1.06 and 1.43 the three previous years. This is a great trend for our Wisconsin students. The next AMC 8 competition will be held on November 18, 2014.

The AMC 10 and 12 contests were held on February 4 and 19, 2014. A total of 642 Wisconsin students took the AMC 10, a decrease from 793 in 2013, 756 in 2012 and 780 in 2011 and significantly less than the 938 in 2010 and 991 in 2009. A total of 880 took the AMC 12, this number is significantly down from 1,014 in 2013, 1,152 in 2012 and 1,254 in 2011. Thus, a total of 1,522 students took the AMC 10/12, again lower than last year's total of 1,807, 1,908 in 2012 and 2,034 in 2011. Of the Wisconsin students, 24 scored well enough to be invited to take the American Invitational Mathematics Examination (AIME). This number is lower than the 35 in 2013, but similar to 28 in 2012, however much lower than past years; 45 in 2011 and 54 in 2010. As you can see the downward trend of participation has continued this year. There was one perfect score from Wisconsin this year by S. Wasielewski, a 10th grader from Rufus King International School in Milwaukee. The average score for Wisconsin students compared to the United States average scores are in the following table:

	10A	10B	12A	12B
Wisconsin	57.11	49.13	57.39	55.40
United States	60.51	62.41	61.77	63.26

The next AMC 10/12 will be given February 3 and 25, 2015.

MAA-Wisconsin Section High School Contest Examination

The Section contest examination was given on Thursday, December 5th, 2013. There were 46 schools reporting scores this year for a total of 1,873 students. This is a significant increase from 29 schools in 2012, (47 schools in 2011, 69 schools in 2010 and 81 schools in 2009). The cutoff for the top 1% was a score of 60 out of 120 this year.

There were no perfect scores this year.

The contest winners in combined state contest and AMC scores were Brian Luo and Christopher Xu both from James Madison Memorial High School. Congratulations to Brian and Christopher!

Dr. Jay Beder, from University of Wisconsin - Milwaukee, directed the contest this year for their first year as hosts. 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 beder@uwm.edu.

Laura Schmidt, UW-Stout

The Wisconsin Section is on Facebook

<http://on.fb.me/oRQZbs>

Project NExT-Wisconsin

Change in Directorship and Membership

In the spring of 2014 Kirthi Premadasa of the University of Wisconsin – Baraboo/Sauk County began the process of handing the Project NExT – Wisconsin directorship to me (Eric Eager of the University of Wisconsin – La Crosse). The two of us co-organized the 2014 panel discussion after the 2014 MAA Wisconsin sectional meeting, with me taking over as directorship thereafter. We currently have roughly 25 contributing members of Project NExT-Wisconsin, including substantial interest from incoming faculty.

2014 Spring Panel Discussion

Project NExT-Wisconsin had their spring panel discussion immediately following the second day of the 2014 MAA Wisconsin sectional meeting on April 5, 2014. The spring panel revolved around the motivation for, and implementation of, lesson study in mathematics courses. Lesson study is the professional development process that centers on teachers working collaboratively on a small number of “study lessons” to help them better understand course content delivery. Working on these study lessons involves planning, teaching, observing and critiquing lessons – all focused on an overarching goal of improved teaching.

We were blessed to have a great panel of volunteers from UW-Whitewater, UW-Stout and UW-Colleges. These panel members graciously provided us with their knowledge gained from past lesson study activities, and ideas for future implementation of lesson study projects.

The panel concluded with an inquiry regarding topics for the fall conference. Participants were very enthusiastic about modeling in the classroom, as well as professional development advice. I took these suggestions very seriously when preparing for the fall conference.

Fall Conference

The Project NExT – Wisconsin fall conference will be held on Oct. 4-5 at the University of Wisconsin – Baraboo/Sauk County. We are pleased to have two external presenters for the Fall 2014 Project NExT Conference, Joyati Debnath and Bob Panoff, as well as myself. The conference will have three themes: Professional Development, Mathematical Modeling in the Classroom, and Flipped Classrooms. Abstracts for these talks are below:

Fulfilling our goals in Research, Professional Growth and Services, Joyati Debnath

The presentation will focus on role of an academician in academics and professional services with particular emphasis on personal and professional growth as well as scholarly activities and research. The primary categories will include teaching effectiveness, scholarly activities and research, student growth and developments, continued preparation and study, and finally community developments and services. These categories are intertwined and thus require equal and/or balanced contributions for a successful academic and professional career. The presentation will explore personal ideas, experiences and guidance for possible success in the academic fields. Some potential research directions in STEM fields will also be addressed.

Computational Thinking and Modeling: Mathematics at the Speed of Right, Bob Panoff

Dynamic, visual, and interactive computing environments can bring mathematics to life, advancing our understanding of the world around us, and allowing a true inquiry-based approach to learning through computational implementations of mathematical models across the undergraduate experience. We will explore examples of the application of modeling, and simulation through numerical, system, and agent models across the sciences to demonstrate that mathematics is the lingua franca of computational thinkers.

Flipping the Classroom, Eric Eager

Over the last decade teachers and professors have experimented with "flipping their classrooms" in an attempt to enhance the learning experiences of their students. Flipping the classroom can take on many forms, but most flipped-classroom approaches involve having students participate in stimulating activities during regular class time, while information assimilation is saved for outside of the class, often through the use of video lectures. In this talk I will discuss the motivations for and

implementation of a flipped classroom environment and show how I flipped my Mathematical Models in Biology class at UW-La Crosse in the spring of 2013 and 2014.

We will also be having member presentations (three faculty members have already committed to giving talks) on Saturday evening of the conference. Members will be staying in the Wintergreen Hotel in Wisconsin Dells. For more information, please see the webpage <http://sections.maa.org/wisconsin/NExt/default.html>

Eric Eager, UW – La Crosse

Student Activities

As Coordinator of Student Activities, I'd like to heartily encourage you to bring your students to conferences around the state during the coming year. In particular, if you have students who are interested in giving talks or watching other student talks, there are a couple of excellent venues available.

First, St. Norbert College will host its annual Pi Mu Epsilon Undergraduate Research Conference on November 7 and 8. When I attended this conference for the first time last year, I was overwhelmed by the quality and range of the student talks presented. The students that we brought from Ripon College had a marvelous time, and I strongly encourage you to bring students, even if they are not planning to give talks.

In addition to the student talks, the illustrious and always entertaining Colin Adams of Williams College will give an invited talk in the guise of Sir Randolph Bacon, an adventurer on the high seas. In this talk, entitled "Blown Away: What Knot to Do When Sailing," Sir Randolph will describe how an understanding of the mathematical theory of knots saved his bacon. Colin will also give a talk (in his normal persona) on how to use calculus to survive the zombie apocalypse.

As they have over the last few years, 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 http://www.uwosh.edu/faculty_staff/szydliks/faceoff.htm.

The second venue that I'd like to highlight is the Spring 2015 MAA Section Meeting, which will be held at Ripon College on April 24 and 25. Student talks are welcomed and encouraged, and as in past years, a student retreat room will be available.

Finally, the Wisconsin Mathematics Council's 47th Annual Green Lake Conference will take place May 6-8, 2015. Anyone who is interested in mathematics education should consider attending.

McKenzie Lamb, Ripon College

Opening on the Section Executive Committee

Chair-Elect. 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 Tom Drucker at druckert@uww.edu. Self nominations are encouraged. Section officers must be members of the MAA.

CALL FOR SPEAKERS

83rd Annual Meeting of MAA Wisconsin Section, April 24 – 25, 2015

Ripon College

Talks of all kinds are welcome, particularly ones that are accessible to students, and we encourage talks by students. Talks connected to the Centennial Celebration of the Mathematical Association of America are particularly welcome.

If you wish to present a talk, please complete the form below and send by March 1, 2015, to Kavita Bhatia (kavita.bhatia@uwc.edu). Talks received after March 1 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 1, 2015

Name: _____

Institution: _____

Phone: _____

Email: _____

Title of talk: _____

Length of talk: 25 minutes _____ or 50 minutes _____

Abstract: (Suggested 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 morning is Imperative _____ Preferred _____
 Either time is acceptable _____

CALL FOR STUDENT SPEAKERS

83rd Annual Meeting of MAA Wisconsin Section, April 24 – 25, 2015

Ripon College

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 1, 2015, to Kavita Bhatia (kavita.bhatia@uwc.edu). Talks received after March 1 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 1, 2015

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: (Suggested length, 250 words or less.)

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 morning is Imperative _____ Preferred _____

 Either time is acceptable _____

Know Your Wisconsin Mathematician

Interview with Professor Gary Britton, UW-Washington County, by Benjamin V.C. Collins

Where did you grow up?

My early years were spent on a sheep ranch and farms near Stickney, South Dakota. Grade school was in small one-room country schools and my high school graduating class had 16 students. Occasionally during grades 1-3 I rode my pony to school where the other boys and I would keep our horses in the school barn during the day while we were in class.

Was there a time in your life when you discovered that mathematics was what you wanted to do?

I must have had an interest in numbers and arithmetic at an early age, as my mother talked about how as a young boy I would come in from gathering the eggs from our chicken coop and pose addition problems with the eggs as I gave them to her.

I became a mathematics major at the beginning of my junior year in college, and it was when I did my student teaching in mathematics that I decided that was what I really wanted to do as a career.

Where did you go to undergraduate school?

My undergraduate years were spent at Dakota Wesleyan University, in Mitchell, SD. It is a small liberal arts college that was located about 30 miles from our farm. My initial plans were to coach athletics and teach physical education. After much uncertainty about what I was going to do, one of the best decisions I made during those years was to switch my major and minor around. I majored in mathematics and earned a physical education minor.

And what about graduate school?

After earning my B.A. degree, I started teaching high school mathematics (mostly Algebra II) and coaching. I realized my math background was rather weak so I applied for some NSF Summer Institutes. That was in 1963. In response to the Soviet Union's 1957 launch of Sputnik there had been a big push to improve mathematics and science education. There were a lot of NSF funded summer programs available for teachers. I was accepted into one at Western Michigan University in Kalamazoo. I spent two summers there and then decided I wanted to get a master's degree. South Dakota School of Mines and Technology (SDSM&T) was offering Instructorships where you taught full-time and took graduate courses. The stipend was almost as much as I was making teaching in high school. I obtained a leave of absence from the high school and had every intention of returning when I finished my M.S. degree. However, as part of the instructorship, I had the opportunity to teach calculus. I realized that after that experience I would not enjoy high school teaching as much as I had previously, so decided to look for positions at the college level. Fortunately, at that time there were colleges and universities hiring instructors without doctorates. After coming to UW-Washington County, I took additional course work at an Oberlin College NSF institute for college teachers. I also took courses at UW-Milwaukee but didn't pursue a doctorate. Eventually I went to the University of Northern Colorado for two summers and then took a year-long leave to complete the residency requirements and the course work. In 1983 I finished my dissertation in statistics and obtained a D.A. degree.

What was the influence of your family on your education?

My parents had both gone to college during the depression, and started teaching with 2-year certificates without completing their bachelor's degrees. My mother quit teaching to raise a family and then started teaching again when I was in sixth grade. Towards the end of WWII my father left teaching and began farming. With this educational background around us while growing up, I think it was always assumed that my three younger sisters and I would go to college. I don't remember that any of us ever considered not doing so.

How did you end up at UW-Washington County?

My thesis advisor at SDSM&T knew Marion Smith in Madison, who was chairman of the math department for what was then the UW Center System, and recommended that I come to Wisconsin for an interview. I ended up taking a position to teach at the Marinette campus. During the next spring I expressed interest to Dr. Smith in moving to a more central location. He informed me that the Washington County campus was being built and they would need someone to handle mathematics there the next year. My wife, Jean, and I drove to West Bend in April where I had an interview and Jean and I looked at the area. We liked it a lot and decided to

accept the opportunity to move here to be part of the initial faculty for this new campus. At the time, I expected it would be for only three or four years.

How is teaching at a two-year school different from other forms of college teaching?

Beyond the obvious difference of not having the opportunity to teach upper division courses, perhaps one of the main differences is that you don't have a chance to know students as well and to see them develop mathematically. At most, you only see them in math classes for three or four semesters. On the other hand, I think that for many of us, one good feature is that at two-year schools (at least in the UW- Colleges) there is more latitude in terms of the research and professional activities that meet departmental expectations.

What courses do you like to teach?

Over the years I think that beginning calculus courses, both the one for STEM majors and also Calculus for Business, would be my favorites. For most students, the topics and approaches are new to them and you can do some meaningful applications that are pertinent to the students' interests. That makes for more interesting teaching. In addition to calculus, towards the end of my active years of teaching and periodically since retiring, I have enjoyed teaching our Quantitative Reasoning course. This course is designed for students who won't be using mathematics in science or additional math courses. It focuses on mathematics that they will use in everyday life. You are able to deal with non-trivial subject matter and useful exercises to which students can relate.

You were very active in the Wisconsin Section during the 1980s. How do you think the section has changed over the years?

Probably the most notable change is the increased involvement of students at the Spring Meeting. This includes contributed papers presented by students and also the large number of student teams participating in "Face Off – The Math Game Show". Another big change is Project NExT which has done an excellent job of providing professional development opportunities for new faculty since 1999. What hasn't changed is the opportunity that the MAA provides to learn about additional mathematics and new approaches to teaching. And perhaps most importantly of all, is the expanded professional contact and association that participation in Section activities leads to. For example, it was at a Spring MAA meeting that I first learned about randomized response methods in surveys dealing with sensitive issues. The topic later formed the basis for some presentations that I made for our campus and also a section of my dissertation.

What do you think is the best part of being a mathematician?

I like being part of a highly respected discipline that offers challenging intrinsic concepts and ideas within mathematics itself, as well as a means to solve real problems in the world about us. By teaching mathematics you have an opportunity to work with young people and help them become better problem solvers in addition to studying the course material.

What was the worst part of teaching mathematics?

I found it discouraging when I corrected a student's exam paper and realized that they hadn't understood a concept or procedure that I thought we had thoroughly covered.

How would you describe what you did when you were talking to somebody outside of mathematics?

I would try to illustrate that mathematics is not static, but alive with new ideas and applications that are being utilized regularly, some of which affect them in ways that they never thought of.

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

While I was actively teaching, I enjoyed explaining new concepts to students and helping to guide them in solving problems related to those concepts. I am most proud of some of my former students and knowing that I played a role in what they are doing today, whether or not that involves mathematics in any direct way. Outside of the classroom, I enjoyed hiring new faculty when I was department chairman, and I am proud of their successes and the contributions that these faculty members have made to mathematics in Wisconsin. And I certainly enjoyed the variety of work and experiences that a mathematics teaching career has offered. This included teaching a wide range of courses, serving as department chairman, working in UW System Administration as an academic planner for a semester, and administering a professional development grants program for Wisconsin institutions in the 1990s.

What is your advice to college students and new teachers?

To college students I would say, "Keep up with your course material, reading and solving problems, on a daily basis." To new teachers my advice is "Stay mathematically active by participating in as many professional activities as you can, such as workshops, conferences, seminars, and meetings."

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

Campus News

Beloit College

submitted by Paul J. Campbell

Darrah Chavey translated Paulus Gerdes' ethnomathematic book *Sona Geometry from Angola*, Vol. 2, which was published last December. In January, he presented a talk on "Symmetry Variation in Hmong Fabric Arts" at the annual Joint Meetings, where he was also one of the judges for the Math Art Exhibition. He presented a talk on "Bouncing in a Double Pool Table" at the Wisconsin MAA meeting at UW-Whitewater in April. In April he also gave a guest lecture at the UW-Washington County STEM Club meeting on "Designs and Patterns Across Cultures." In May he gave a talk on "The Mathematics of Quilts" to the Mad City Quilt Guild. In June, his paper "Tilings by regular polygons III: Dodecagon-dense tilings" was published in the journal *Symmetry: Culture and Science*. And in August, he presented a paper on "Three Color 2 : 1 : 1 Designs" at the "Bridges Between Math and the Arts" conference in Seoul, which was published in their proceedings.

Paul Campbell has just finished co-editing *The Interdisciplinary Contest in Modeling: Culturing Interdisciplinary Problem Solving*, which contains reflections and advice from former team members, advisors, and judges of the contest, together with statements of all the problems from the first 16 years of the contest and essays about the value of interdisciplinarity. The book is available from COMAP in both print and CD-ROM formats.

The department is engaged in searching for an applied mathematician for a tenure-track position and would appreciate any suggestions from members of the Section.

Carroll University

submitted by Kristen Lampe

We are pleased to welcome **Thomas St. George** to the mathematics faculty at Carroll University. Tom comes from St. Olaf College, where he worked after earning his Ph.D. from Northern Illinois University in Differential Equations.

Carthage College

submitted by Mark Snavelly

Sara Jensen joined the Carthage College faculty in August of 2014. Dr. Jensen is a Carthage College graduate who attended Wisconsin Section meetings as an undergraduate. She completed her Ph.D. at UW-Madison under the direction of Marty Isaacs. Please join us in welcoming Sara to the Wisconsin Section as a colleague.

St. Norbert College

submitted by Katherine Muhs

The St. Norbert College Pi Mu Epsilon Regional Undergraduate Mathematics Conference will be held on November 7-8, 2014. The featured speaker this year will be **Colin Adams**, the Thomas T. Read Professor of Mathematics at Williams College in Massachusetts.

This past summer, SNC students **Marissa Hartzheim** and **Taylor Miller** collaborated with faculty member **John Frohlinger** on a research project as part of the St. Norbert College Summer Undergraduate Research Program in Mathematics called the Poss-Wroble Fellowship Program. Their work resulted in two talks presented at the 2014 Mathfest: "A Particular Polarity, Part I" given by Marissa and "A Particular Polarity, Part II" given by Taylor. Both of the student presentations were selected for AMS Awards for Outstanding Pi Mu Epsilon Student Paper Presentation. The program is named for **Rick Poss**, Professor Emeritus of Mathematics and **Ed Wroble**, a very generous alumnus of SNC.

In 2013-2014, the SNC math department started a new colloquium series aimed at introducing math majors and minors to parts of mathematics they don't encounter in the classroom. Seven talks last year covered

ground from bipartite graphs and the PageRank algorithm to the mathematics of movie-making. In addition to SNC math faculty, **John Beam** of UW-Oshkosh and **Scott Corry** from Lawrence University came to speak. The colloquium series is continuing in 2014-2015 with an interdisciplinary focus, including talks on the relationships of mathematics with philosophy, music, and physics. The first session was held September 18th and was a presentation on Knot Theory given by **Heather Molle** from Lakeland College.

Kathy Muhs begins phased retirement this year. She is teaching only in the fall semester and intends to visit warmer climates during the winter term.

UW Colleges

submitted by Kavita Bhatia

Alexey Kryukov (UW-Waukesha) was awarded a sabbatical for 2013-2014; he was invited to work in Tel Aviv, Bar Ilan and Ariel Universities and spent two months there.

Ibrahim Saleh (UW-Marathon County) published two papers:

- “Exchange Maps of Cluster Algebras,” *International Electronic Journal of Algebra* 16, 2014, 1-15.
- “Induced representations of Hopf Algebras,” *International Journal of Algebra*, Vol. 8, no 4, 195-204.

Kavita Bhatia (UW-Marshfield/Wood County), **Kirthi Premadasa** (UW-Baraboo/Sauk County) and **Paul Martin** (UW-Marathon County) published a paper, “Teaching Integration Applications Using Manipulatives,” *Primus: Problems, Resources & Issues in Mathematics Undergraduate Studies*; July 2014, Vol. 24 Issue 4, p. 335-346.

Kavita Bhatia (UW-Marshfield/Wood County) and **Kirthi Premadasa** (UW-Baraboo/Sauk County) received a UW System Growth Agenda Grant to develop *An Alternate Math Pathway for Non-STEM Majors*.

Ed Stredulinsky (UW-Rock County) and **Janette Miller** (UW-Sheboygan) organized two UW-System Math Redesign conferences. Both were held at UW-La Crosse.

- “The Path to Redesign: Institutional Factors that Impact Redesigning Developmental to General Education Level Mathematics,” October 11-12, 2013.
- “The Nuts and Bolts of Redesigning Developmental to General Education Level Mathematics,” June 13-14, 2014.

UW-Eau Claire

submitted by Chris Ahrendt

The UWEC Department of Mathematics is pleased to welcome two new colleagues this fall:

Marie-Claire Koissi has joined our faculty in a tenure-track position as an Associate Professor beginning in the fall of 2014. Prior to UW-Eau Claire, she was a faculty member at Western Illinois University and Penn State University-Mount Alto campus. Her doctoral research dealt with mortality risk, and her postdoctoral research has focused on applications of fuzzy logic to actuarial science and insurance. She is teaching Math 246 (Elementary Statistics) and Math 347 (Mathematical Statistics) this fall.

Zhixin (Harriet) Yang has accepted a tenure-track position as an Assistant Professor beginning in the fall of 2014. She recently completed her Ph.D. at Wayne State University and her research interests include applied probability, stochastic control, and numerical methods for stochastic systems. In addition, she has passed several professional exams sponsored by the Society of Actuaries and Casualty Actuarial Society. She is teaching Math 246 (Elementary Statistics) and Math 470 (Mathematical Models for Financial Economics) this semester.

Both Zhixin and Marie-Claire will play key roles as the actuarial program seeks designation by the Society of Actuaries as a Center of Actuarial Excellence. There are currently only 25 university actuarial programs worldwide that have earned this designation, with 14 of these programs in the United States.

Ryan Harrison, Jennifer Harrison, and Chris Hlas of the UWEC Mathematics Department, along with **Majula Joseph** of Education Studies, received two federal Math Science Partnership grants from the Department of Public Instruction.

Professor Emeriti **Walter Reid** presented a talk titled “Deriving Range Circle Center and Radius from Domain Circle Center and Radius Under the Linear Fractional Transformation (LFT): $w=(az+b)/(cz+d)$ ” at the Fall 2014 AMS Sectional Meeting hosted at UWEC.

Aba Mbirika organized the UWEC Math Department's second annual "math in the woods" campout for students, faculty and their families at Lake Wissota. The event took place on September 13.

UW-Milwaukee

submitted by Jay H. Beder

The department welcomes new faculty associate **Rebecca Bourn** as the Calculus coordinator and Assistant to the Graduate Program Chair. Dr. Bourn earned her Ph.D. in Applied Mathematics from the University of Virginia, Charlottesville (1997). Since then she has worked in a variety of professional positions including scientific programming, financial engineering, and environmental engineering consulting. She has recently joined an NSF research team focusing on probabilistic composite mechanics. She is a member of the Mathematics Division of the American Society for Engineering Education (ASEE) where she has presented her work on fostering critical thinking and developing estimation skills within traditional mathematics classrooms.

For the second year, the department will host the Wisconsin Section High School Math Contest, to be given December 4. Last year 1873 students in 46 schools participated. Information on this year's contest can be found at <http://sections.maa.org/wisconsin/contest.shtml>.

UW-Oshkosh

submitted by John Beam

We congratulate **Kamran Kazmi**, who has earned tenure and a promotion to Associate Professor.

One of our undergraduates, **Eric Boll**, presented "More congruences for the k -regular partition function modulo 3" at Posters in the Rotunda in Madison on March 12, 2014.

The department has been awarded a Mathematics and Science Partnerships grant through the U.S. Department of Education for a three-year professional development program for teachers in grades 4-9. This program is a partnership between UW Oshkosh and five Northern Wisconsin school districts. **Eric Kuennen** is the project director; he will be assisted by **John Beam**, **Jason Belnap**, **Amy Parrott**, and **Ben Szydlak**.

This fall the department began hosting a monthly Math Circle for local middle and high school teachers.

UW-Platteville

submitted by Ben Collins

The department welcomes **Stephen Longfield** as Teaching Academic Staff. Stephen is a doctoral candidate at the University of Illinois, where he is studying operator algebras under Marius Junge. In his spare time, he likes to read, exercise, and spend time outdoors..

Congratulations to **Chris Frayer** and **Leonida Ljumanovic** who have been awarded tenure. **Miyeon Kwon** has been promoted to Professor.

Tim Deis is the 2014 recipient of the UW System Underkofler Award for Teaching Excellence. The Underkofler Award, given since 1991, is given to four recipients in the UW System schools in the Alliant Energy coverage area. Winning nominees must display an uncommon commitment to teaching, employ especially effective teaching techniques and enable particularly notable achievements by former students.

Dave Boyles is on sabbatical for fall semester. He is studying applications of field theory to the parametrization of algebraic curves, looking to create new computational algorithms.

UW-Stevens Point

submitted by Cynthia McCabe

We welcome new faculty members **Brad Kahrs** and **Senfeng Liang**. Brad received his Doctorate of Education from Walden University and has studied the influence of mentoring relationships on novice K-12 teachers' experiences. Senfeng received his Ph.D. from the University of Maryland, College Park. His research interests include family involvement in children's mathematics education experiences and its role in their education, and cross cultural comparative studies of mathematics education.

Susan Talarico was awarded the campus-wide Excellence in Teaching Award last spring. Congratulations go to her on this well-deserved award!

We are also pleased to announce the promotion of **Jed Herman** from Associate Professor to Professor.

UW-Stout

submitted by Steven Deckelman

Wan Bae and **Amitava Karmaker** received tenure. **Nelu Ghenciu** and **Laura Schmidt** were promoted to full professor.

John Niederhauser received an Outstanding Teaching award in the STEM College.

Alexander Basyrov is taking a sabbatical this year.

John Hunt has returned to the department to fill in for **Laura Schmidt** who is out on maternity leave.

New adjunct hires in the department include **Zheng Hau** (Ph.D., Kansas State), **Ganna Kotenko** (M.A., University of Wisconsin–Eau Claire), **Mark Krines** (Ph.D., Iowa) and **Donald (Alex) McLaren** (Ph.D., University of Ottawa).

Mingshen Wu is back after a year- long sabbatical. During his sabbatical he visited Stanford University.

Chris Bendel organized a session at the AMS Central Fall Sectional Meeting held at UW-Eau Claire.

Greg Bard attended the MathFest in Portland.

Terry Mason has been named Program Director for the department Applied Mathematics and Computer Science major.

Game Design and Development (GDD) Program Director **Diane Christie** was honored with the prestigious Dahlgren Professorship. The GDD program (computer science concentration) received ABET accreditation.

Students of **Brent Dingle** will be among those giving a presentation at the 2014 ACM SIGCHI Annual Symposium on Computer-Human Interaction in Play (CHI PLAY 2014) in Toronto this October 19-22. The presentation is about a 2D game designed to assist students in better understanding motion graphs.

UW-Whitewater

submitted by Mohammad Ahmadi

The Department of Mathematical and Computer Sciences has been split into two separate departments, the Department of Mathematics and the Department of Computer Science.

Fe Evangelista, the former Interim Chair, has been appointed as the Chair of Department of Mathematics for a 3-year term.

Congratulations to **Thomas Drucker** who has received the first CARE award given by the University of Wisconsin—Whitewater for working with non-traditional students.

The Department of Mathematics is pleased to welcome **Rachel Chaphalkar** as an Assistant Professor in Mathematics Education. Rachel obtained her Ph.D. degree from the University of Montana. Her research areas of interest are Mathematics Education and Statistics Education, with a focus on student understanding of variation.

Khyam Paneru has published his joint paper with H. Chen in the journal of *Advances and Applications in Statistics*. The paper titled “Regression Analysis under Complex Probability Sampling Designs in Presence of Many Zero-Value Responses,” 40 (1), 1- 29, 2014. Khyam also has submitted the paper “Asymptotic Distribution of Pseudo-Likelihood Ratio Statistic for Zero-Inflated Generalized Linear Models under Complex Sampling Designs” and presented the following papers:

- i) Paneru, K. (2014). Zero-Inflated Population: Examples and Modeling with Generalized Linear Models under Unequal Probability Sampling Techniques. *82-nd Annual Meeting of the MAA/Wisconsin Section, University of Wisconsin-Whitewater, WI, April 4-5, 2014.*
- ii) Paneru, K. (2014). Zero-Inflated Mixture Regression under Complex Sampling Designs in Presence of Many Zero-Value Responses. *Statistics Seminar at the Division of Biostatistics, Medical College of Wisconsin, WI, April 15, 2014. (Invited Speaker)*

Leon Arriola continues to be very active. Here are Leon’s accomplishments from this past summer.

- i) Invited lecture: “Being Sensitive to Uncertainty,” First International Congress on Biomedical Engineering \& Mathematical Modeling in Biosciences, Quito, Ecuador. June 4-6, 2014.
- ii) Visiting Faculty: 2014 Mathematical and Theoretical Biology Institute, Arizona State University. June 4-July 26, 2014.
- iii) Invited Faculty: Joint Research Center of the European Commission, The Eighth Summer School on Sensitivity Analysis of Model Output, Ranco, Italy, June 24-27, 2014.
- iv) Research Faculty: Simon A. Levin Mathematical, Computational and Modeling Sciences Center, Arizona State University. June 28-August 3, 2014.

- v) First International and Interdisciplinary Workshop on the Ecology, Evolution and Dynamics of Dengue and other Related Diseases. Arizona State University, August 4-5, 2014.

Xueqing Chen presented a paper at AMS sectional meeting held at University of Wisconsin-Eau Claire, Sept 20-21, 2014. Xueqing also attended NSF/CBMS Regional Conference on Higher Representation Theory at the North Carolina State University, July 6-10, 2014.

Mohammad Ahmadi attended AMS/MAA Joint Annual Meeting in Baltimore, Jan. 2014.

Executive Committee 2014 – 2015

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