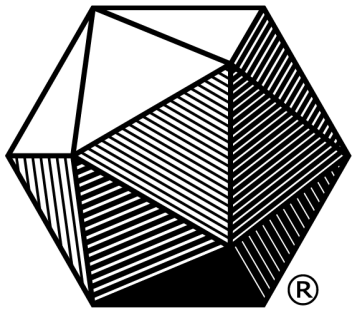
The Mathematical Association of America



Wisconsin Section

Newsletter

Spring 2011

Chair's Report

The Wisconsin section of the MAA has been enjoying a very busy year and there is much to share with you. The three items I focus on here are the upcoming Spring Meeting, the bylaw revisions, and the nominating committee's nomination for Chair-Elect of the section.

Chair-Elect Clare Hemenway has invited a trio of dynamic speakers for our annual meeting. Held April 29-30 2011 at UW-Stout, the meeting will feature Erik Demaine (Polya Lecturer, MIT), Ivars Peterson (MAA), and Hung-Hsi Wu (University of California at Berkeley, retired). Be sure to submit your own talk proposals before the March 25 deadline, and check out UW-Stout's website at http://www3.uwstout.edu/mscs/maa2011.cfm for travel and lodging details.

The Wisconsin Section Executive Board has labored diligently this past year to revise and update section bylaws. Shortly after we began our revisions, the MAA Board of Governors sent notice that it was time to complete such an update – it felt good to be a step ahead! Last spring, the membership approved a procedural bylaw revision allowing notice to be given directing members to a website to review the details of proposed changes. Your official written notice to visit the posted changes on the section website is in the Brief Newsletter, which went out to your official mailing address in late February. The Section Executive Board is considering further changes, based on feedback from the MAA Committee on Sections. These changes will be posted as soon as possible, no later than March 30. As you review the changes, you will see very extensive revisions as the bylaws were not reflecting current or practical practices and as their format needed to be updated to be consistent with MAA guidelines.

At the business meeting on April 30, we will have a great deal to accomplish and voting on the bylaw revisions is part of this. In order to ensure the completion of section business at our annual meeting, I am requesting that amendments proposed by members of the section be submitted to me no fewer than fifteen days in advance of the meeting (thus, by April 15, 2011). This allows all proposed amendments to be posted on the website for review by the membership before the meeting. Further, I encourage people wishing to comment on the proposed revisions and/or amendments to notify me before the meeting begins. Our meeting time is limited, and I plan to recognize people giving advanced notice to speak to the bylaw revisions or amendments before others will be recognized. Depending on the number of amendments and/or speakers, we may need to begin the business meeting earlier than 8:00am, so stay posted!

The bylaws in their posted form have been extensively reviewed by the section Executive Board and also have been reviewed by the MAA Committee on Sections in their current form. To this end, I am encouraging our section membership to phrase amendments with great care and to propose only amendments with substantive changes. According to Robert's Rules of Order, the proper format for amendments is one of the following four options: to insert certain words; to strike out certain words; to strike out certain words and replace them with others; to substitute an entire motion revising the bylaws for the motion pending.

The nominee for Chair-Elect this year is James Swenson of UW-Platteville. You will find a short biography elsewhere in this newsletter. The election is held at the business meeting.

Certain members of the Executive Board have agreed to serve additional terms. Ben Collins has agreed to another term as Public Information Officer and Steve Szydlik and Ken Price will serve another term as Student Activities Coordinators.

I would like to thank the entire Executive Board for their hard work this year. Special thanks go to Ben Collins for his efforts to make the bylaw revisions as readable as possible and available to the section members.

I look forward to seeing many of you at UW-Stout this April.

Kristen Lampe, Section Chair

Governor's Report

The MAA predicted a balanced budget for 2010, but revenues did not match expectations resulting in a rather uncomfortable $200K deficit. A budgeted $19K deficit for 2011 now looks more like it will blossom into a $149K shortfall. When this became apparent this fall, the executive committee implemented some serious belt tightening for 2011 including employee benefit reductions and delayed projects. They cut $550K out of the proposed $7.5 million budget for 2011. Over the next year, the MAA may need to cut some programs that have high cost to benefit ratios. On the other hand with over $8 million in investments and several million dollars in real estate equity, the MAA is in sound financial health. A good deal of the investment money has restricted use since it is from donations earmarked for special projects. So a few

annual deficits will not cause the organization serious problem, but they cannot be tolerated if they continue in the long run. You can help. Electronic memberships to the MAA save the organization money. Donations to the MAA, even small donations, are very much appreciated and help a great deal.

The strategic planning group looking at MAA journal publications has filed its final report which includes many recommendations. One recommendation is to decouple journal subscriptions from MAA membership so that joining the MAA and purchasing a journal subscription become two separate actions. It is also recommended that we look into ways of creating online communities centered on journals allowing for journal-related discussions and reviews. The complete report is posted at the MAA web site. The MAA will now be looking into its book publications. Be on the lookout for an invitation to take part in a survey concerned with the future of MAA books.

The Characteristics of Successful Programs in College Calculus program is underway. This fall surveys were administered to first-semester calculus courses at 300 institutions involving 700 instructors and 12,000 students. This three-year project is expected to result in many recommendations about how Calculus can be taught successfully.

Webwork is one of the many useful facilities available at the MAA website (http://webwork.maa.org). This open-source online homework system is cost effective and compares favorably with similar sites offered by book publishers.

The Board of Governors has just approved a new discounted membership for secondary school teachers. This is an attempt to allow secondary teachers who may be teaching college level mathematics join the MAA at a price that is more affordable. Also, the Common Core State Standards Institute has released its standards for K-12 mathematics education. It is an attempt to set country-wide standards for mathematics education so that students entering college will be prepared for university mathematics courses. Most states including Wisconsin have already adopted these standards. The challenge now will be implementing those standards by preparing teachers to cover the required topics.

This is the year for MAA elections. This spring you will be asked to vote for MAA officers (president, first and second vice-presidents) and for Wisconsin Section governor. This is also the last year that Tina Straley will be Executive Director of the MAA and the last year that John Kenelly will be Treasurer of the MAA. Committees have been formed to seek replacements for these important positions. If you have expertise in management or finance, consider applying for one of these positions; applications for Executive Director are due on April1.

Jonathan Kane, Section Governor

Contest Report

American Mathematics Competitions

The AMC 8 competition was held on November 16, 2010. A total of 1,599 Wisconsin students participated in the competition (up from 1,477 in 2009 and 1,571 in 2008). One student received a perfect score from Wisconsin. The average score for Wisconsin students was 8.55, compared with the national average score of 9.98. The gap has continued to increase from .85 in 2009 to 1.43 this year.

The AMC 10 and 12 contests will be held on February 8 and 23, 2011. Data will be reported at the Spring Meeting.

MAA-Wisconsin Section High School Contest Examination

The Section contest examination was given on Thursday, December 9, 2010. There were 69 schools reporting scores this year for a total of 2,582 students. This is a decrease from 81 schools in 2009, but similar with 71 schools in 2008. We had participation from six new schools this year. The difficulty level of the exam was a little harder this year compared to 2009, and there was one perfect score. The cutoff for the top 1% was a score of 86 out of 120 this year.

Congratulations to Christopher Xu from Madison Memorial High School who received a perfect score.

We give thanks to the UW-Stout faculty for coordinating these efforts and finishing their final year hosting the contest. Beginning in summer 2011, Viterbo University in La Crosse will be the new host under the leadership of Dr. Michael Wodzak. If anyone would like to volunteer to help the test committee please send an email to mawodzak@viterbo.edu.

Laura Schmidt, Math Contest Coordinator

Project NExT-Wisconsin

At the spring meeting of MAA Wisconsin section, Project NExT-WI will have lunch on Saturday followed by a small workshop for Project NExT-WI fellows. Details will soon be forthcoming. We will try to finish by 3:00 pm.

Project NExT-WI also holds an annual Fall Workshop (during last week of September or first week of October) in Menomonie, WI which is open to all current NExT-WI members. Further details are posted in time on the Project NExT-WI website (http://www.uwplatt.edu/nextwi/) along with updates to all the NExT-WI members.

Currently we have 27 active members in NExT-WI and we are always looking for new members. There is no deadline to apply for the membership. One can apply any time during the academic year.

Project NExT-Wisconsin is open to all full-time faculty members in mathematics departments in the Wisconsin Section who are within their first four years of undergraduate teaching. You may also be eligible if you have more teaching experience, but are new to the Wisconsin Section. To apply, contact me at ulhaqi@uwplatt.edu .

Also, Project Next-WI is looking for a new director. Traditionally, the director comes from the ranks of Project NExT-WI fellows who are not tenured yet. Irfan has served in this position for about six years and it is time for him set aside to make way for new blood. So I am asking all of the current Project NExT-WI fellows to seriously consider becoming Project NExT-WI director. Please let me or MAA-WI section chair, Kristen Lampe (klampe@carrollu.edu*)* know that you are interested in this position.

Irfan Ul-Haq Director, Project NExT-Wisconsin

Student Activities

The Student Activities Co-Coordinators, Ken Price and Steve Szydlik, are pleased to report on opportunities for Wisconsin's undergraduate math students. We especially look forward to this year's section meeting at UW-Stout in Menominee, WI on April 29-30. Faculty, please continue to encourage your students to attend. There will be numerous talks for and by students and we plan to offer a student retreat room again this year. We will try to find low-cost housing options for students who wish to stay for both days. The student cost for the banquet on April 29 will continue to be discounted.

The fast-paced math game show "Face Off!" was once again a part of the spring 2010 MAA Wisconsin section meeting in Oshkosh and at the Fall 2010 Pi Mu Epsilon Regional Undergraduate Math Conference in De Pere. "Face Off!" will return to the MAA section meeting again this year. The new "Slammer" buzzer system allows us to include as many as ten teams. Students who have taken Calc I or above are eligible to compete for their department in teams of 2-4 players. Contact Ken (pricek@uwosh.edu) or Steve (szydliks@uwosh.edu) for details on the event or to register your team. You can also check the web site at http://www.uwosh.edu/faculty_staff/szydliks/faceoff.htm.

The Wisconsin Mathematics Council's Annual Green Lake Conference is scheduled for May 5-6, 2010. Anyone interested in any level of mathematics education in Wisconsin is encouraged to attend.

We look forward to student participation in state events and hope you encourage some of your students to attend conferences and to give presentations. Please let us know if you have ideas of ways to make the section more student-friendly. We're always looking for suggestions!

Ken Price and Steve Szydlik, Student Activities Coordinators

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 2011 Wisconsin Section Distinguished Teaching Award are now being accepted. The nomination form and instructions are available for downloading as a pdf file on the MAA web site at http://www.maa.org/awards/teachingawards.htm or contact Mark R. Snavely Mathematics Department, Carthage College, Kenosha, WI 53140. Nominations should be submitted so as to arrive by November 1, 2011.

Nominee for Chair-Elect

James Swenson, UW-Platteville

James Swenson earned the Ph.D. in mathematics in 2006, at the University of Minnesota (Twin Cities), specializing in algebraic topology under the direction of Mark Feshbach. His primary research areas are invariant theory and group cohomology, but his students and colleagues at the University of Wisconsin-Platteville have inspired him to investigate a variety of other topics, from polynomial root dragging to the mathematics of power rankings in sports. He is in his sixth year at UW-Platteville, where he currently serves as Chair of the Faculty Senate.

Proposed Change to Bylaws

The bylaws of the Wisconsin Section of the Mathematical Association of America, Inc., are available on-line at: http://www.uwplatt.edu/maawisc/const.html .

At that site, you'll find the current bylaws, a document showing all the changes, and the final version, after amendment. There are many stylistic changes, but the substantive changes are:

- Position "Chair of the Committee on Mathematics Contests" has been changed to "Math Contest Coordinator". There is no committee, and hasn't been for years. Duties of this position have been rewritten to reflect current practice.
- Position of "Newsletter Editor" and "Public Information Officer-Liaison Coordinator" have been combined into "Public Information Officer". They were combined in practice five years ago. Duties of this position have been rewritten to reflect current practice.
- Language has been added to clarify when the Chair-Elect, Chair, and Immediate Past Chair take their respective offices.
- The duties of the Secretary-Treasurer have been rewritten to reflect current practice.
- The Article on "Committees" has been removed. The only standing committee no longer exists. Language has been added to the duty of the chair about the formation of committees.

Volunteer to Help the Section

The Wisconsin Section invites nominations for the position of 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.

The section also invites nominations for the Director of Project NExT-Wisconsin, the section's professional development program for new and recent Ph.D.'s. The director responsible for recruiting new faculty for Project NExT-Wisconsin and for planning and directing all activities and programs for Project NExT-Wisconsin.

Send nominations to Section Chair Kristen Lampe at klampe@carrollu.edu. Self nominations are encouraged. Section officers must be members of the MAA.

Spring Meeting

Information can be found for the MAA Spring Meeting 2011 at
http://www3.uwstout.edu/mscs/maa2011.cfm

Getting around UW-Stout

Campus Map: http://www.uwstout.edu/guide/upload/3D_map.pdf

Most of the activities on Friday and Saturday will take place in Jarvis Hall Science Wing/Addition (or in connected buildings) located between 10th and 13th avenues.

Directions to UW-Stout

From Interstate 94: From I-94, take exit 41 on to southbound Highway 25, which becomes Broadway Street. Follow Broadway Street to 13th avenue where parking is available either on Broadway Street or 13th avenue (see parking information).

From the North on Highway 25: Enter Menomonie on southbound Highway 25, which becomes Broadway Street. Follow Broadway Street to 13th avenue where parking is available either on Broadway Street or 13th avenue (see parking information).

From the South on Highway 25: Enter Menomonie on northbound Highway 25, which becomes Broadway Street. Follow Broadway Street to 13th avenue where parking is available either on Broadway Street or 13th avenue (see parking information).

From the East on Highway 12/29: Enter Menomonie on Highway 12/29, which becomes Stout Road and then joins Main Street. At the intersection of Main Street and 6th Street East, turn left and continue to the intersection of 6th street east and 13th avenue, turn right onto 13th avenue where parking is available either on Broadway Street or 13th avenue (see parking information).

From the West on Highway 29: Enter Menomonie on Highway 29. This comes to a T-intersection with Broadway Street (Highway 25). Turn right onto Broadway Street. Follow Broadway Street to 13th avenue where parking is available either on Broadway Street or 13th avenue (see parking information).

Parking

There are two parking lots for conference attendees on a space-available basis. On Broadway Street, after 13th avenue on the left, Lot #4 is free for parking beginning at noon on Friday. If you turn onto 13th avenue, Lot #34 is also free for parking beginning at noon on Friday. All permit lots are open to visitors on Friday after 4pm and on Saturday. Metered parking is available along local streets. If you need a specialty parking permit closer to Jarvis Hall Science Wing please contact Dr. Eileen Zito at zitoe@uwstout.edu.

Parking Map: http://www.uwstout.edu/guide/upload/campus_map.pdf This map is slightly outdated, the construction zone on the map is where Jarvis Hall Science Wing is located now!

Lodging Information

Menomonie offers several options for meeting attendees who will be staying overnight on the evening of April 29th. The conference organizers have reserved blocks of rooms under the group name MAA Conference at three locations and other options are listed on this page as well. All blocks are being held until April 15th.

- Country Inn and Suites: 320 Oak Avenue, Menomonie, WI 54751 (Exit 41 off I-94); (715)235-5664. Approximately 2 miles from UW-Stout. Each room has color TV, hair dryer, iron/ironing board, coffee makers with complimentary coffee and more. The hotel has an indoor heated pool and whirlpool, fitness center, high speed internet access, and a complimentary continental breakfast. There are a variety of rooms available, including 23 double queens, 3 kings, 5 king mini-suites, 8 two room suites, 1 king whirlpool room, booked under the MAA Conference. The rooms are available at the state rate of $70. To book rooms call the hotel directly.
- Quality Inn & Suites: 1721 Plaza Drive NE, Menomonie, WI 54751 (Exit 45 off I-94); (715)233-1500. Approximately 3 miles from UW-Stout. Each room has a coffee maker and refrigerator. The

hotel has free Hi speed internet, free local calls, exercise room, indoor heated pool, and free continental breakfast. There are 30 double rooms booked under the MAA Conference. The rate is approximately $65. To book rooms call the hotel directly.

- Super 8 Menomonie: 1622 N Broadway Street, Menomonie, WI 54751 (Exit 41 off I-94); (715)235-8889. Approximately 2 miles from UW-Stout. Each room has a color TV and iron/ironing board. The hotel has free wireless high speed internet, free local calls, indoor heated pool and whirlpool, and free super start breakfast. There are 10 double, 10 queen, and 10 king rooms booked under the MAA Conference. The rate varies depending on the number of people sharing a room from $52-$65. To book rooms call the hotel directly.

Other Lodging Options: All within 2-3 miles from UW-Stout.

- Americinn Motel of Menomonie: 1915 North Broadway, Menomonie, WI 54751; (715)235-4800
- Econo Lodge Inn and Suites: 1815 North Broadway, Menomonie, WI 54751; (715)235-9651
- Motel 6: 2100 Stout Street, Menomonie, WI 54751; (715)235-6901

REGISTRATION FORM

MAA Wisconsin Section Spring Meeting — University of Wisconsin-Stout

April 29-30, 2011 — Preregistration Deadline: **April 15, 2011**

NAME(S)_____

Address_____

Institution (for your name badge)_____

Registration				Banquet			
No.	Type	Price*	Total $	No.	Type	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 restrictions (vegetarian, kosher, etc) and the number of each.			
	Other	$22					
Registration Total:							

*Registration at the meeting will be $25 for all except students, who will still be free.
**Regular banquet tickets will be $25 after the pre-registration deadline of April 15. 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

Finally, please indicate the highest degree awarded by your *department*:

☐ Ph.D. ☐ Master's ☐Bachelor's ☐ Associate ☐ Not Applicable

MAKE CHECKS PAYABLE TO: MAA - WISCONSIN SECTION

PLEASE SUBMIT TO:
Mark Snavely, Treasurer (262) 551-5714
Mathematics Department snavely@carthage.edu
Carthage College
Kenosha, WI 53140

CALL FOR SPEAKERS

Annual Meeting of MAA Wisconsin Section, April 29 – 30, 2011

University of Wisconsin-Stout

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 at the Spring Meeting, please send the information below to Clare Hemenway (clare.hemenway@uwc.edu).

An on-line version of this form is available at:
http://www.uwplatt.edu/maawisc/speaker.html

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

SPEAKER RESPONSE FORM – DUE: March 25, 2011

Name: _____

Position: _____

Institution: _____

Address: _____

Phone: _____ Email:_____

Title of talk: _____

Length of talk: 25 minutes _____ or 50 minutes _____

Abstract:

Check here if your talk is appropriate for students: _____

All rooms have a whiteboard, a document camera, and a projector with a connection for a laptop computer. If you have any other equipment needs, please describe them in the space below, 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

Student Mathematics Conference

Student Mathematics Conference

University of Wisconsin-Stout, April 29 – 30, 2011

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 25, 2011, to Clare Hemenway (clare.hemenway@uwc.edu).

An on-line version of this form is available at:
http://www.uwplatt.edu/maawisc/student.html

STUDENT SPEAKER RESPONSE FORM – DUE: MARCH 25, 2011

Name: _____ Year in School_____

Institution: _____

Address: _____ Phone: _____

_____ Email: _____

Faculty Sponsor: _____

Title of presentation: _____

Brief description of presentation:

All rooms have a whiteboard, a document camera, and a projector with a connection for a laptop computer. If you have any other equipment needs, please describe them in the space below, and we will try to accommodate you.

Time preference: Friday afternoon is Imperative ____ Preferred ____

Saturday morning is Imperative ____ Preferred ____

Either time is acceptable _____

Face Off, The Mathematics Game Show

What is it? Face Off is a mathematics quiz show with questions from the broad realm of mathematics. And we mean broad! Teams of 2-4 students representing their schools compete to answer these questions. Each team gets a sign with the face of a mathematician (For example, your team could play as Descartes, Gauss, Hilbert, Noether, or Newton.) A team "buzzes in" to answer a question and earns points if its answer is correct. Teams can use a calculator, paper, and pencil. For more information, visit the Face Off website: http://www.uwosh.edu/faculty_staff/szydliks/faceoff.htm

When is it? Friday, April 29, 5:30-6:30 pm., as part of the MAA-Wisconsin Section meeting

Sample Questions:

The *Off Limits* category contained the following questions:

20 pts. What is $\lim_{x \to \pi/2} (\sin x) / x$?
40 pts. What is $\lim_{x \to 2} (x - 3) / (x - 2)$?
60 pts. What is $\lim_{x \to 0} |x| / x$?
80 pts. What is $\lim_{x \to 1} (2^x - 2) / (x - 1)$?

The *Take a Number* category contained the following questions:

20 pts. How many pips are on a standard die?
40 pts. What prime number is both the sum of two primes and the difference of two primes?
60 pts. What two-digit number has a cube root equal to the square root of the sum of its digits?
80 pts. What is the smallest non-palindromic number whose square is a palindrome?

How do we enter? Please contact one of the Face Off organizers if you would like to enter a team. Any student who has taken or is enrolled in Calculus I is eligible to join a Face Off team representing their school. If a school doesn't have enough interested students, contact the organizers anyway – we can combine interested students to form hybrid teams. Space will be limited, so form a team soon and let us know of your interest!

Face Off Organizers:

Dr. Ken Price (pricek@uwosh.edu, (920)424-1057),
Dr. Steve Szydlik (szydliks@uwosh.edu, (920)424-7346),
http://www.uwosh.edu/faculty_staff/szydliks/faceoff.htm

Other Upcoming Events

The third annual **Wisconsin Mathematical Modeling Challenge** (WMMC) will be held in early October 2011 (dates TBD) at the University of Wisconsin-La Crosse. Inspired by the annual COMAP contests in math modeling, the WMMC gives students 24 hours to develop, test, and present models for open-ended, real-world problems. Detailed information regarding the contest (including previous problems) can be found at http://www.uwlax.edu/faculty/wendt/WMMC/index.htm. Contact Ted Wendt (wendt.theo@uwlax.edu) for details on the event.

The **Euler Society** is pleased to announce that its 2011 conference will be at Carthage College in Kenosha, Wisconsin. The conference will run from Monday, July 25 to Wednesday, July 27. Dormitory rooms will be available for the duration of the conference, beginning on Sunday, July 24.
Presentations pertaining to the work of Leonhard Euler or 18th century science are particularly encouraged. Those interested in attending or presenting at the meeting should contact the conference co-organizers by postal mail or email:

Erik R. Tou
Department of Mathematics
Carthage College
2001 Alford Park Dr.
Kenosha, WI 53140
etou@carthage.edu

Dominic Klyve
Department of Mathematics
Central Washington University
400 E. University Way
Ellensburg, WA 98926
klyved@cwu.edu

Deadline for abstracts is May 20. Deadline for attendees is June 5. Registration fee is $120; a reduced rate is available for those without institutional support.

Know Your Wisconsin Mathematician

Interview with Jonathan Kane, UW-Whitewater, by Benjamin V.C. Collins

Where did you grow up?

I grew up in Duluth, Minnesota. I lived in the same house until I graduated with my BA in Mathematics at age 21. Then I moved to Madison to attend graduate school, and after getting married, I moved into the second house I have ever lived in where I live today.

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

All through elementary school I struggled due to my being mildly dyslexic (although I was in graduate school when it was diagnosed). In seventh grade I hit my first course titled “Mathematics” and was suddenly exposed to a subject that came easily to me, and I began spending an enormously amount of my time studying as much mathematics as I could get my hands on. I had a teacher who noted this and fed my interest. He did as much as anyone to set my direction and convince me to pursue mathematics.

As late as age 15 I remember considering other occupations such as physics, engineering, and computer programming, but I think that soon after it became very obvious that if there were an option to work in mathematics, I would take it. Several professors at the university encouraged my interest and training. I do remember leaving for graduate school thinking that I wanted to get a Ph.D. in mathematics because I loved to do mathematics, but at the time I did not have a good idea what I would do with the degree after I earned it.

Where did you go to undergraduate school?

My BA is from the University of Minnesota, Duluth. I already felt at home there since, as a high school student, I was taking college mathematics courses, and I had a job working on a research project in the Physics Department. It was also convenient for my family having me stay at home as an undergraduate, so I actually applied to only one school for college.

And what about graduate school?

Ok, so I actually applied to several graduate programs. I chose UW-Madison because of their strength in Analysis and because I was greeted by very friendly people during a visit I made to campus.

What was the influence of your family on your education?

My family always promoted the importance of education. I have two older sisters who excelled in academics, although both majored in English. It always clear to me that my family expected me to get a college degree, and my parents always took an interest in my education.

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

I already mentioned my seventh-grade mathematics teacher. I am still in touch with him today and often stop in to see him when I am visiting in Duluth. In high school I had science teachers who encouraged us to enter projects in the school science fair. Being interested in mathematics, I instead wrote mathematics papers. Each year I put a great deal of effort into producing a paper that would make its way to the state science fair in Minnesota. It was a wonderful stimulus for learning. As a senior in high school in order to understand the limits of straight-edge and compass constructions, I read much of Herstein's Topics in Algebra book. It all stemmed from the encouragement of these teachers.

How did you end up at Whitewater?

I graduated with my Ph.D. in 1980 in the same semester that I got married to Janet Mertz who was already on the faculty in the Oncology Department at UW-Madison. Although I applied for jobs throughout the country and went on a good half-dozen job interviews, the advantages of being able to live with my wife during the first year of our marriage began to become clear. The job at UW-Whitewater had the advantage that there would be plenty of opportunity for me both to learn and to teach computer science as well as mathematics and statistics courses. Commuting to Whitewater from Madison proved reasonably convenient since a large number of others do the same.

You have a very mathematical family. Tell us about the accomplishments of your wife and your sons.

I am very proud of my entire family. My wife, Janet, has a Ph.D. in biochemistry from Stanford. Her thesis advisor, Paul Berg, won the Nobel Prize in 1980 for work on genetic engineering, work on which Janet made major contributions. She went to Stanford from MIT where she double majored in Biology and Engineering, and nearly completed a third major in Mathematics. She has always been interested in mathematics. I refer to her as a math groupie. She has recently gotten very interested in the girls-in-mathematics issue, and we have worked together on several papers on the subject.

My older son, Daniel, is just special. My wife and I discovered early on that he was gifted in mathematics, like the time when, at age six, as part of the dinner conversation he gave us a complete general proof that the sum of two odd numbers was always an even number. Although we tried to nurture his interest, after a few years we could no longer take credit for all that he accomplished which included earning two IMO gold metals, being a four-time Putnam Fellow, wining the Morgan Prize, and publishing over 40 research papers in mathematics and computer science. He will get his Ph.D. in Mathematics from Harvard this spring.

My younger son, Jeremy, might have become a mathematician, too, but understandably, living in the shadow of his older brother made that difficult. Jeremy has a masters rating in chess and really enjoys tutoring children in chess. He will graduate this spring from the University of Chicago with a degree in Political Science and Public Policy.

What courses do you like to teach?

One of the things I like the most about teaching in Whitewater is the opportunity it has given me to teach a wide variety of courses. My thesis was in Complex Analysis, so I really enjoy teaching Calculus, Complex Variables, Discrete Mathematics, and our Introduction to Analysis course which is our course to teach students how to write proofs. While in graduate school, I got a masters degree in statistics, so I like

teaching our Probability and Mathematical Statistics courses. Whitewater supported my study of Computer Science, and in 1983 I completed my masters in that area. I teach about half-time in Computer Science and especially enjoy teaching programming, data structures, algorithms, and theory of computation. In 1995 I completed the exams for an Associateship in the Society of Actuaries and have enjoyed teaching our actuarial courses.

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

The mathematics that I teach changes very slowly, but the students that I teach change faster. Students coming out of high school today have almost no understanding of mathematical proofs as compared to those of 30 years ago who received at least some background in proofs in their geometry courses. On the other hand, students today are much more comfortable with technology both for calculating and for finding reference material. The best mathematics students of today have many more opportunities to train than their predecessors, so if they are talented and ambitious, they will advance far beyond what was possible before.

Where do you think mathematics is going, and then closely allied to that, where do you think it should go?

Mathematics has always had an unusual relationship with the rest of the culture because it is hard to figure out exactly why they hire us to do what we do. Certainly, we need well trained mathematicians to teach application courses so that we can have engineers, statisticians, scientists, financial experts, and other researchers who can use mathematics. But why do they pay us to study and research areas of mathematics that entertains us but provides little application to the rest of society? Apparently, mathematicians have a good track record of showing that as long as enough of us are allowed to continue thinking about mathematics, when an important new problem arises, our community will find the expertise needed to solve the problem. So, mathematics will certainly grow in the application areas that the society currently deems financially beneficial (look for a lot of growth in the study of risk, investments, and information theory), but it will also expand into new areas that just meet the current fancy of mathematicians.

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

I love to play games, and doing mathematics is like continually playing games. It is hard to believe that they pay me to do this.

What was the worst part of teaching mathematics?

Ok, there is always drudgery in any job. Grading homework can sometimes be tedious, but if I keep reminding myself how important it is, and I keep thinking about how I would appreciate getting useful feed-back on my own work, then I find the strength to make it through.

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

I once mentioned to my friend's mother that I studied mathematics because of the beauty of the subject; that to me it was more a humanities than a science. She challenged me to give her a glimpse of that beauty. So I sat down with her for about an hour and explained about the cardinality of sets. It was a subject that did not depend on how much mathematics she might have remembered. I was able to get through the argument that the set of rational numbers was the same size as the set of integers, but that the set of real numbers was bigger. She was amazed and had to agree that the arguments were beautiful. Unfortunately, most people do not have the patience to listen as intently as my friend's mother.

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

The part of teaching I like the best is working one-on-one with a student. When a student comes to me for help, I love the challenge of finding out what it is that they need to complete their understanding of a concept.

I am a mathematician because I like working problems. In the last ten years I have gotten very involved with writing mathematics problems for contests. This has been a real joy, and with practice, I have become much better at doing it. I write most of the problems for our on-line Purple Comet! Math Meet (http://purplecomet.org), and I am now co-chair of the committee that produces the American Invitational Mathematics Exam (AIME). I also enjoy working with Math Circles and Mathematics Summer Camps because I meet students eager to soak up as much knowledge and insight as they can get.

What is your advice to college students and new teachers?

To college students I would say that once you have found your passion, do not let anything get in your way of understanding. Keep asking questions and finding help so that you can know that you are mastering the area where you want to be an expert.

To faculty members I would quote one of my mentors, Joe Gallian, who recommends "Always say yes" to any request for help. That is, get involved in every conceivable project, especially those that interest you. It is amazing how much you can get done when you have too much to do.

As outgoing governor of the MAA, do you have any advice for the membership?

The MAA offers many more services and opportunities than most members are aware of. I have gotten a great deal out of my service on various MAA committees, and I always enjoy attending the organization's meetings. If a member has a particular interest within mathematics, there is like a facet of the MAA that can address and enhance that interest. By getting involved in the organization, one can find many rewards while serving the community. I look forward to staying active in both the national organization and the Wisconsin Section long after my term as governor ends.

Do you have any other comments?

Besides mathematics, I like chess, bridge, running, biking, hiking, swimming, reading science fiction and mysteries, photography, listening to classical and rock & roll music, and playing the bass in the Madison Community Orchestra. I have been selling the shareware computer gradebook program, GRADE GUIDE, since 1985 (http://gradeguide.com) and the shareware Sudoku Studio program since 2006 (http://sudokustudio.com).

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 Ben Newton*

A number of Beloit College students and faculty were on the program at the recent 2011 Joint Mathematics Meetings, in New Orleans, LA.

Beloit faculty presentations included a talk by **Bruce Atwood** entitled "Denoising Capillary Electrophoresis Signals with Wavelets". **Darrah Chavey** also spoke about "Glide Reflections as a Cultural and Artistic Value", and **Ben Newton** presented a paper entitled "On the Number of Maximal Subgroups of a Finite Solvable Group".

In addition, **Amy Shell-Gellash** co-organized a session entitled "Treasures from the Past: Using Primary Sources in the Classroom", and also chaired a meeting of officers of the Special Interest Groups of the Mathematical Association of America.

Also, December 2010 graduates **Catherine Kealey** and **Amanda Wilkens** presented posters at the MAA undergraduate poster session. Ms. Kealey's poster was on "Elastohydrodynamic Instabilities in Gravity-Driver Flow", and Ms. Wilkens' poster was entitled "Reduced Cozero Divisor Graphs of Commutative Rings". Ms. Kealey¹s poster was one of approximately 35 (out of more than 260 total) to be selected as a 2011 MAA Undergraduate Poster Session Prize Winner.

Madison College (formerly Madison Area Technical College) *submitted by J. Sriskandarajah*

- **Lecture # 102, Friday, January 28, 2011**, 3:30 PM, Room TBD Professor John A. Frohliger, St. Norbert College
  "The Shortest Distance is Along a Straight Line, Even When It's Not"
- **Lecture # 103, Friday, February 25, 2011**, 3:30 PM, Room TBD Professor Tim Pennings of Hope College and his Welsh Corgi Elvis
  "Do Dogs Know Calculus?"
- **Lecture # 104, Friday, March 4, 2011**, 3:30 PM, Room TBD Dr. James Swenson, UW-Platteville
  "Power Rankings: Math for March Madness"
- **Lecture # 105, Friday, April 8, 2011**, 3:30 PM, Room TBD Professor Joseph Gallian, University of Minnesota and former President of the Mathematical Association of America
  "Breaking Driver's License Codes"

Further information is available at http://clubs.matcmadison.edu/mathclub/ .

St. Norbert College *submitted by Kathy Muhs*

John Frohliger (Associate Professor of Mathematics) gave a presentation to the Madison Area Technical College Math Club on January 28, 2011. The talk, "The Shortest Distance is Along a Straight Line (Even When It's Not)," was well received by the packed classroom. This was the seventh time John was invited to speak to the MATC Math Club.

Terry Jo Leiterman is directing a new fluid mechanics laboratory at St. Norbert College. The lab will enrich course content, provide undergraduate research experiences, and support faculty scholarship. The lab includes a comprehensive hydrodynamics trainer with a data acquisition system. The equipment also offers opportunities for flow experiments in open flumes, or channels, with an investigation of flow processes on a wide range of specialized weirs, or dams. Moreover, two sedimentation devices allow for the visualization and analysis of particle settling velocities and the separation of solids from fluid suspensions in both sparse and dense particle populations. The lab is further equipped with high-end imaging and computing capabilities. It will serve as a key instrument in developing mathematical models with real-world applications.

UW-Eau Claire *submitted by Simei Tong*

The UW-Eau Claire NSF-REU program "Summer Undergraduate Research Experience in Pure and Applied Mathematics" will run June 28, 2011 to August 23, 2011. http://www.uwec.edu/surepam/
UWEC students **Josh Frinak** and **Austen Ott** received a poster award at undergraduate poster section at the annual Joint Mathematics Meetings. Their project "Constructing Moduli Spaces of Low Dimensional A∞-Algebras by Extensions" under the direction of Dr. **Michael Penkava** was the fourth consecutive year that his students received an award at the conference.
Other student research teams from UWEC went to the same conference and presented posters there:

- **Shawn Peters** and **Becky Sippert** with faculty adviser Dr. **Simei Tong**, presented "Classifying Complemented Subspaces of Lp, $2 < p < \infty$ with Alspach Norm."
- **Chelsey Drohman**, **Ying Yang**, and **Alice Oswalt**, with faculty advisers Dr. **Kate Masarik** and Dr. Tong, presented "An International Study of Mathematics in the Middle Grades: China, Russia, and the United States."
- **Bret Meier** and **Austen Ott** with faculty adviser Dr. **Colleen Duffy** presented "Polynomial Equations over Matrices."
- **Tristan Williams** with research team members from the University of St. Thomas, Worcester State University and the University of Indianapolis, presented "An Exploration of Ideal-Divisor Graphs."

UW-La Crosse *submitted by Andrew Matchett*

Last October, UW-La Crosse hosted the second annual Wisconsin Mathematical Modeling Challenge. In teams of three, students spent 24 hours developing, testing, and presenting models for two open-ended, real-world problems. Eight teams from 5 schools participated (St. Norbert College, UW-La Crosse, UW-Platteville, UW-Stevens Point, and Viterbo University). The St. Norbert team won top prize in the written category, while a UW-La Crosse team won for best presentation.

Jim Sobota plans to retire at the end of the present academic year – for the second time. Professor Emeritus Sobota retired from the UW-La Crosse Mathematics Department in 2002. However, he was pressed back into service in 2009 to direct the newly revamped Math Learning Center on the UWL campus. The goal was to combine in one location tutoring for undergraduate mathematics students and an enhanced teaching experience for UWL math education students. Jim says he has the Center running smoothly enough now to pass the directorship on to someone else. We will see.

UW-Milwaukee *submitted by Jay H. Beder*

The 22nd annual Marden Lecture in Mathematics will be given by **Fernando O. Gouvêa**, Carter Professor of Mathematics at Colby College. The lecture is tentatively scheduled for early April. Information about the talk will be posted as it becomes available at
http://www4.uwm.edu/letsci/math/newsevents/events/marden.cfm .

Senior Lecturer **Gary Luck** retired in December. He joined the Department in Fall 2004 as Coordinator of Math 175-176, the two-semester course for K-8 teachers, and was promoted to Senior Lecturer in 2009.

Prior to joining the Department, he had been a teacher at Greendale (WI) High School for 32 years, teaching pre-algebra through AP calculus. He was twice a finalist for the Presidential Award as Wisconsin Math Educator. Gary was also an original member (1988) of the T3 (Teachers Teaching with Technology) Organization and a writing team member for T3 math curricular materials. He has been a presenter at numerous international, national and regional meetings and workshops. During his time at UWM, Gary worked extensively with the professional development of teachers in the Milwaukee public schools, at both the elementary and secondary levels. Gary received both his BS and MS degrees from UWM.

Jen Georgeff has joined our office staff as Program Associate. She began in the summer on a part-time basis, replacing **Gail Boviall**, who retired last year, and is now full-time as of this semester. Jen comes to us from the Department of Geosciences staff. She holds a bachelors degree from UW-Stevens Point.

UW Oshkosh *submitted by John Beam*

UW Oshkosh student **Liem Nguyen** won an MAA Undergraduate Poster Session Prize for her poster "Parity of k-regular partition functions" at the Joint Meetings in New Orleans this January.

UW-Platteville *submitted by Benjamin V.C. Collins*

Ben Collins has been named assistant chair of the math department.

UW-Stout *submitted by Steve Deckelman*

Peter Oman and **Frank Jury** have joined the department as adjuncts this spring.

Joy Becker, **Steve Deckelman**, **Nelu Ghenciu** and **Laura Schmidt** attended the JMM in New Orleans this year. Joy and Laura presented talks titled “Improving Learning Through a Lesson Study Community of Practice” and “Closing the Gap Between Learners’ and Instructors’ Expectations”.

UW-Whitewater *submitted by Mohammad Ahmadi*

Jonathan Kane and his wife **Janet Mertz** presented a paper “Mathematics Performance of Boys Correlates with Gender Equity” at the Joint Meeting in New Orleans.

The Purple Comet! Math Meet takes place April 4 – 10, 2011 at http://purplecomet.org.

Ki-Bong Nam was an invited speaker, ICA 2010, Gadjah Mada University, Yogyakarta, Indonesia, 7-10 October 2010. Ki-Bong gave a seminar talk at the Ewha University for graduate students and presented a paper on "Generalized Euler pi-function" at the Choongpook University for undergraduate students. He published the following papers:

1. Ki-Bong Nam and Jonathan Pakianathan,
   "On generalized Witt algebras in one variable," 35(2011) 1-32,
   Turkish Journal of Mathematics, doi: 10.3906/mat-1003-201.
2. Seul Hee Choi and Ki-Bong Nam, "Automorphism group of a special type Lie algebra I", Algebra Colloquium, 17 (Spec 1), 2010, 815--828.

Ki-Bong is a coauthor of the book (to be released soon) ***Introductory Abstract Algebra,*** Ki-Bong Nam, Xueqing Chen, Moon-Ok, Wang, and Ki-Suk Lee, Kyungmoon-Sa, Korea, March. 2011, ISBN: 978-89-6105-423-2.

Angela Harlan published the article “Hamiltonian Cycles Avoiding Sets of Edges in a Graph”, *Australasian J. of Comb.*, Volume **48** (2010), p. 191 – 203, October 2010.

Thomas Drucker gave a talk to the Contributed Paper Session on Philosophy of Mathematics at the MAA meeting in New Orleans. He spoke on ‘Putting Content into Fictionalism’.

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