



North Central Mathematical Bulletin

The Newsletter of the North Central Section
of the Mathematical Association of America

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Spring 2012, Volume 15, Number 1

UPCOMING MEETING

Hope to See You at Concordia University in St. Paul, Minnesota!

Concordia University will host the MAA-NCS Spring Meeting, April 20-21.

Our two invited speakers for the spring meeting are [Richard McGehee](#) (University of Minnesota-Twin Cities) and [Jill Dietz](#) (St. Olaf College).

A program for the Spring 2012 meeting will be posted approximately one to two weeks on the MAA-NCS website prior to the meeting.

OFFICER REPORTS

Governor's Report

Steve Kennedy, Carleton College

I represented the section at the Board of Governors meeting in Boston on January 3. Herewith some highlights: a major part of that meeting is a briefing on the financial situation of the Association. The short version of that briefing is that the overall financial picture seems to be OK. We have been harmed by the economic downturn but appear to be recovering. In particular, we have been running an operating deficit in our annual budget each of the last several years (about \$150K last year). We can't really afford that much longer, but it looks as if we will balance the budget this year. The association's financial documents can be examined at maa.org and I won't spoil the fun you might have doing so by revealing any more here. The takeaway message seemed to be "we're OK, but not great." (Relatedly, the Greater MAA fund set records for number of gifts and dollar amount raised.)

We received the final report of the strategic working group on SIGMAAs. The MAA has been in a cycle of strategic planning for the last several years with small working groups examining various areas of operation (e.g., Competitions, Students, Periodicals etc.) and making recommendations. The SIGMAA report mainly concerned itself with erecting some regularization of procedures around reviewing, reporting and budgeting. SIGMAAs were only invented a few years ago and they've been organized (I use the word loosely) in a somewhat ad hoc way to date. The only (mildly) controversial proposal here was the budgeting one. Until now an individual SIGMAA's funding would roll over year to year if there was an unspent balance. Now, each year, each SIGMAA will work with MAA HQ to determine a budget for that year depending on membership and activity in that SIGMAA.

In the spring of 2010 the Association of Women in Science received NSF funding to study the rates of awards and other recognition of women in scientific societies. The MAA agreed to cooperate with that study and appointed a Task Force to do so. That Task Force (Betty Mayfield, Frank Farris, Patricia Hale, Martha Siegel and Francis Su) analyzed data on MAA awards and made several recommendations, most of which are still under consideration. The data showed that women are underrepresented in invited

lectures and MAA awards for writing. Women appear to be represented in approximate parity with their population proportion in MAA awards for service and teaching. One of the recommendations made is that when a person is appointed to an Awards committee that person receive a document describing procedures useful for avoiding implicit bias. I've sent a copy of that document to the Section Secretary for posting on our webpage ([link](#)). Among this Task Force's other recommendations is a suggestion that the MAA adopt double-blind refereeing for all our journals (as is already the practice for the CMJ). This recommendation was somewhat controversial, but seems likely to become MAA policy in the very near future.

Over lunch governors, in small groups, discussed the transition from high school calculus to college calculus and ways to make that transition smoother. (We learned that fantastically large numbers of students who pass calculus in high school fail the same course when they retake it in college.) The MAA is working with the NCTM to adopt policy language amenable to both organizations that essentially will articulate that calculus should not be the goal of K-12 mathematics education, it should instead be offered only to students who possess sufficient mastery of algebra, trigonometry and analytic geometry. Also, colleges should make an effort to structure their introductory curricula in ways that acknowledge the near ubiquity of a high-school calculus experience in their incoming first-year students.

In other news from MAA HQ there are searches underway for new editors of Math Horizons and The CMJ (consider applying---these are fun jobs). Planning for the upcoming MAA Centennial is in high gear, the major celebration will take place at Mathfest 2015 in Washington DC. Deanna Haunsperger and I are chairing the planning committee, if you've got ideas for appropriately celebratory activities, we'd love to hear them.

I hope to see you at Concordia in a few weeks!

Respectfully submitted, Steve Kennedy

Addendum: Feel free to view the presentation given for Section Governors (in PowerPoint). ([link](#)).

President's Report

Mike Hvidsten, Gustavus Adolphus College

The next meeting of our section will be April 20-21 at Concordia University in St. Paul. As always, our meetings provide a welcome opportunity to re-connect with friends and colleagues across our great section. We will have two invited addresses from Richard McGehee (University of Minnesota - Twin Cities) and Jill Dietz (St. Olaf College). We will also have a pre-meeting session, co-sponsored by our section NExT but also open to all section faculty. The topic of the session will be the Common Core Standards. We will have Sonja Goerdt from St. Cloud State University assist us in understanding what the Common Core is and what impact the new standards will have for us as educators of future K-12 teachers.

I encourage all members of our section to attend our bi-annual section meetings. There are always great talks, stimulating conversations, and the chance to connect with fellow mathematicians in our area. It would be great to see new faces at our meetings. Please encourage junior members of your department to consider attending our meeting at Concordia University.

This is the last meeting in which I will serve as President. I have enjoyed serving the section - it has been a great privilege to do so. I have had the opportunity to work with interesting, clever, dedicated, and funny fellow officers. I would especially like to thank those officers who are completing their terms of service at the spring meeting. I owe a great debt to Past-President Jason Douma. Jason has been a tremendous resource and friend. Joel Iiams has spent the last three years doing an amazing job as

Secretary of our section. He will be hard to replace. Thanks also go to member-at-large Sayel Ali, Minnesota State University - Moorhead and to committee chairs Danrun Huang, St. Cloud State University (teaching award committee) and Ralph Carr, St. Cloud State University (service award committee).

Treasurer's Report

Dale Buske, St. Cloud State University

I would like to thank the following colleges and universities for becoming institutional members of the North Central Section. As in previous years all proceeds will be used to support our Section NEXt program.

Bemidji State University	Bethel University	Concordia College	Concordia University, St. Paul
Gustavus Adolphus College	Minnesota State University, Mankato	Normandale Community College	Saint Mary's University
South Dakota State University	Southwest Minnesota State University	St. John's University/College of St. Benedict	St. Olaf College
University of Manitoba	University of Minnesota, Duluth	University of Minnesota, Morris	University of Winnipeg

If your institution is not listed and you would like to become an institutional member the cost is \$25 and checks (made out to NCS-MAA) can be sent to me at the address below. If you would like an invoice, please let me know and I will send one out. Thanks again and I'll see you at the spring meeting.

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CAMPUS NEWS

Augsburg College

All is well here at Augsburg.

We are preparing for the second annual Math Jeopardy event, which will be held on March 30th this year. Four schools will be sending students to compete: Augsburg, St. Thomas, Macalester, and Concordia St. Paul.

In other news, **Pavel Belik** is on sabbatical this year, and **Ken Kaminsky** will be on sabbatical 2012-13. Our students are busy applying for jobs, graduate schools, REUs, and scholarships.

(submitted by Jody Sorensen)

College of St. Benedict/St. John's University

Bret Benesh was awarded a \$2500 grant from the Academy of Inquiry Based Learning to support his preparation to teach our capstone course next year.

Recent graduates **David Byrne** and **Matt Donner** have published with their advisor **Tom Sibley** "Groups of graphs of groups," a revision of their honors theses, in the journal Contributions to Geometry and Algebra.

At the joint meetings **Whitney Radil** and **Marie Meyer** presented posters based on their summer REU programs.

Mike Tangredi is enjoying his well deserved sabbatical. He is investigating how to improve calculus learning.

Jennifer Galovich and **Tom Sibley** were granted sabbaticals for all of next year. They will be at Virginia Tech, where Jennifer has been invited to be part of the Virginia Bioinformatics Institute. Tom will be rewriting his geometry text and pursuing other writing and researching projects. *(submitted by Tom Sibley)*

Concordia College-Moorhead

The mathematics and computer science department at Concordia College Moorhead is celebrating its 100th anniversary during 2011-2012. On 20 January 2012 we hosted a day of alumni talks, including the following: **Lisa (Johnson) Rezac** '92, Ph.D. from Nebraska and now in the mathematics department at St. Thomas; **Grant Weller** '08, a Ph.D. candidate in Statistics at Colorado State University and a recent visitor to the Statistical and Applied Mathematical Sciences Institute near Chapel Hill, NC; **Lisa (Larson) Conzemius** '89, a Presidential Award winner in secondary mathematics for Minnesota from Detroit Lakes; **Randy Boushek** '79, Senior Vice President and Chief Financial Officer for Thrivent Financial for Lutherans; and seven Cobbers from Microsoft's Fargo campus. *(submitted by Doug Anderson)*

Concordia University, St. Paul

The Department of Mathematics at Concordia University, St. Paul, is proud to host the spring NCS-MAA sectional meeting. We hope many of you are planning on joining us, April 20-21.

We have officially made an offer to our top candidate for the open math position. As of this writing, the contract is in the mail. The candidate pool was deep and we are excited about the future. Thank you to **Sarah Jahn** for chairing the search committee. We will also be adding an additional position in technology next fall. The search is just getting under way. **Rob Krueger** will chair this search committee. *(submitted by Rob Krueger)*

Gustavus Adolphus College

Tom LoFaro, chair of the department of Mathematics and Computer Science at Gustavus, hosted the MAA mini course "Teaching Differential Equations with Modeling" at the Joint Math Meetings in Boston in January. His collaborators were **Mike Huber** of Muhlenberg College and **Daniel Flath** of Macalester College. **John Holte**, who has been a member of the faculty at Gustavus since 1976, will retire at the end of the spring semester. During his tenure he chaired the 1990 Nobel Conference on chaos, and he served in nearly every office on the MAA North Central Section executive. *(submitted by John Holte)*

St. Cloud State University

St. Cloud State University's Department of Mathematics and Statistics will become somewhat smaller next year. Faculty teaching developmental mathematics courses will now be housed in a Department of

Academic Support. In addition, six faculty will be on sabbatical next year. After over 40 years of service, Dr. **Mohammed Bahauddin** has also announced his phased retirement. *(submitted by Dale Buske)*

St. Olaf College

We are pleased to announce that **Dick Brown** was promoted to the rank of Professor. Dick was recognized for his long-term leadership of and vision for the computer science program at St. Olaf. Also, his NSF grant (with co-PI **Libby Shoop**, from Macalester College) and "academic black belt" award from Intel Corporation show that Dick is a leader in introducing the teaching of parallelism in the undergraduate computer science curriculum.

Paul Zorn, Professor of Mathematics at St. Olaf College and President of the MAA files two reports:

1. I traveled to Kuwait and Bahrain in early February to speak about mathematics, mathematics education, and the Mathematical Association of America, and to meet mathematicians in those countries. My visit was largely arranged through the US Embassy in Kuwait, and was supported by the Gulf University of Science and Technology (GUST) in Kuwait. I gave talks at GUST and four other schools in the area, including some high schools, and met mathematics faculty and administrators from GUST, Kuwait University, and the University of Bahrain. Faculty and students in the Middle East are obviously interested in mathematics and its applications, and in making contacts with mathematicians elsewhere.
2. I appreciate and enjoy the opportunity to serve as President of the Mathematical Association of America, and to travel frequently to visit MAA sections and observe activities around the country. With around 20,000 members, MAA is among the world's largest mathematical associations. MAA programs, carried out largely by volunteer professionals serving on well over 100 committees, include publications, meetings, professional development, public policy, outreach, curriculum design, online resources and services, and much more. MAA will observe its 100th birthday in grand style in 2015.

(submitted by Jill Dietz)

University of St. Thomas

Dr. Prof. **Magda Stolarska** was granted Tenure and promotion to Associate Professor. We congratulate her on her success and wish her the best in the future.

Prof. **Mike Axtell** co-authored (with **Chad Westphal**) a paper in the Notices of the American Mathematical Society entitled, "Ethics for Undergraduate Researchers".

Prof. **Cheri Shakiban**'s son, Dr. **Sheehan Olver** was awarded the prestigious Adams Prize for his work in Computational Mathematics (<http://www.maths.cam.ac.uk/news/3.html>).

The University of St. Thomas was one of the featured, colleges and Universities on ICIAM TV (<http://ust-pcstream1.stthomas.edu/math/ICIAM.wmvt>) at the ICIAM meetings in Vancouver, B.C. in the Summer of 2011.

The University of St. Thomas has been given the designated a Center of Actuarial Excellence by the Society of Actuaries.

The University of St. Thomas now offers a Statistics Degree. *(submitted by Doug Dokken)*

University of Sioux Falls

With support from an NSF grant, **Joy Lind** is serving as the coordinator of a Careers in Mathematics Speaker Series at the University of Sioux Falls. The series launched this spring with featured speakers **Mayur Thakur** from Google, Inc., and **Connie Fournelle** from Boston Fusion Corp. The series will continue with four additional speakers during the 2012-2013 academic year. *(submitted by Jason Douma)*

SECTION NEX T

Designed for new college and university faculty in the mathematical sciences, Section NEX T (New Experiences in Teaching) is a professional development program that addresses the full range of faculty responsibilities including teaching, scholarly activities, and service.

Each year, applications will be solicited for new MAA-NCS Section NEX T fellows to serve for a two year term. We will accept applications from faculty who are within the first four years of beginning full-time employment with teaching responsibilities at the college or university level. The application consists of a short personal statement and a letter of support from the department chair, guaranteeing financial support for transportation, meals, and lodging at the fall and spring meetings of the North Central Section.

The MAA-NCS Section NEX T will meet as part of a joint workshop on April 20, 2012 at Concordia University in St. Paul, Minnesota with Sonja Goerdts from St. Cloud State University speaking about the Common Core and the impact they will have for us as educators of future K-12 teachers immediately prior to the NCS Spring Meeting. Details about the MAA-NCS Section NEX T program and its spring meeting may be found at <http://sections.maa.org/northcen/secNext.html>.

CONFERENCES AND ACTIVITIES

33rd Annual Pi Mu Epsilon Conference

Plan to come with your students to the 33rd Annual Pi Mu Epsilon Conference April 13 and 14 at St. John's. Have your students submit titles and abstracts of talks to Kris Nairn (knairn@csbsju.edu), whom you can also contact for more information. Or go to our web site <http://www.csbsju.edu/Mathematics/Pi-Conference.htm>.

This spring, we are please to announce that our guest speaker is **Ken Millet** from UCSB. His talk on Friday at 8 pm will be "The Nature of Knotting" and his talk on Saturday at 10.30 am will be "Leonardo's Knots". Please see our website for further details of the the talks and Ken's biography: <http://www.csbsju.edu/Mathematics/Pi-Conference.htm>.

There will be student speaker talks on Friday evening from 7-8 pm and on Saturday from 9 - 10.30 am. On the same website there is a Student Speaker Application Form <http://www.csbsju.edu/Mathematics/Pi-Conference/Student-Speaker-Application.htm>. If you have any students interested in giving talks, please have them fill in this form no later than April 3, 2012.

For the first time, we received RUMC funding to help reduce travelling costs for student speakers.

Midwest Undergraduate Data Analytics Competition (MUDAC)

The Department of Mathematics and Statistics at Winona State University is excited to host the first annual Midwest Undergraduate Data Analytics Competition (MUDAC) on April 21-22, 2012. Teams of undergraduate students from the upper Midwest will have 24 hours to solve a data analytics problem for Fastenal®, a global leader in the distribution of industrial and construction supplies. Teams will conduct an analysis and share their recommendations with representatives from Fastenal®. Over \$500

in cash prizes will be awarded to teams that provide the best solutions. To learn more about this competition, please visit our website: www.MUDAC.org. If you like information regarding registering a team or have other questions, please email us at MUDAC@winona.edu. ([poster](#))

FUTURE SECTION MEETINGS

Spring 2012	Concordia University, St. Paul	April 20-21
Fall 2012	University of Minnesota-Duluth	October 19-20
Spring 2013	Gustavus Adolphus College	April 26-27
Fall 2013	South Dakota State University, Brookings	October 18-19
Spring 2014	St. Cloud State University	TBD

INFORMATION FOR CONTRIBUTORS

Submissions should be sent electronically (preferred method) to the shawn.chiappetta@siouxfalls.edu or mailed to:

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