Representative’s Report
By Thomas Drucker, UW-Whitewater

The MAA is looking forward to having MathFest this year in person in Philadelphia. It is scheduled for 3-6 August and may be the first national mathematical meeting in person since the start of the pandemic two years ago. We hope that there will not be any further spikes or surges between now and then that might alter the in-person format. Still, the Association will be monitoring the situation and will make sure that the meeting abides by whatever the health recommendations are at the time.

The separation of the Association from the organization of the Joint Mathematical Meetings (originally scheduled for Seattle in January) has led to the encouragement of all MAA activities on the national level to be at MathFest. There may be some SIGMAA events at the Joint Meetings, but they will be without the financial support of the MAA. I apologize for the confusion from the separation, but the hope is that both Joint Meetings and MathFest will be able to continue for the benefit of the mathematical community.

The Association is also doing its best to offer more support for section meetings (and details of the spring Wisconsin meeting can be found elsewhere in this newsletter). There are more sets of speakers being offered for the programs of section meetings, and the national organization is offering help for the process of registration for section meetings. This year the Wisconsin section will not be taking advantage of that offer, but may do so in the future.

The MAA is also offering more virtual programming to supplement in-person gatherings. You should be receiving news of these programs directly from the national office. There is also information about programs offered by various SIGMAA’s available through the MAA's Connect. If you aren't signed up for Connect, it's worth doing so for the sake of receiving information and for being able to distribute information of your own.

The goal of the Association is to offer material of use and interest to the membership. If you feel that there are additional features that would be welcome, please let me know and I shall pass your suggestions along. While I shall be sorry not to see anyone in person at April’s meeting, I hope that the virtual get-together will be rewarding for instructors and students alike.

Contents
Representative’s Report ......................... 1
Chair’s Report .......................................... 2
Section NExT-Wisconsin ......................... 2
Student Activities ................................. 3
WMC Representative’s Report ............... 3
Annual Meeting Information .................... 4
Invited Speakers ................................. 5
Chair-Elect Nomination ......................... 6
Distinguished Teaching Award ............... 6
Campus News ................................. 7
Chair’s Report
By Ken Price, UW-Oshkosh

Dear MAA-WI community, In these unprecedented times I find great comfort in the connection with math colleagues from across the state, which is sustained and strengthened by the Wisconsin section of MAA. Your steadfast interest and support of the section are greatly appreciated. I hope you find these newsletters as interesting and informative as I do.

The Project NEXT-WI Director position has passed from Wesley Hough (UW-Whitewater) to Niles Armstrong (Milwaukee School of Engineering). Wesley has graciously agreed to liaison with Niles during the transition year. Kseniya Fuhrman (Milwaukee School of Engineering) will conclude her term as Immediate Past Chair at the spring meeting. The section gratefully acknowledges the service offered by Kseniya and Wesley during their terms on the executive committee and welcomes Niles to his new leadership position in the section.

Revised section bylaws were recently approved by the MAA board of directors and have been posted on the MAA-WI website. They specify that the chair shall form a nominating committee for the chair-elect position every year in the fall. My nominating committee consisted of me; the Chair Elect, Chunping Xie (Milwaukee School of Engineering); the Public Information Officer, Anthony van Groningen (Milwaukee School of Engineering); and the Section Representative, Thomas Drucker (UW-Whitewater). I am pleased to report that the committee selected Petre (Nelu) Ghenciu (UW-Stout) and he has accepted the nomination. You can find more information about the nominee in this newsletter. The section will vote on the chair-elect position during its spring business meeting on Saturday, April 2, 2022.

Plans for the 89th annual spring meeting of the Wisconsin section of MAA are coming together. The meeting will be held virtually on March 31, April 1, and April 2, 2022. The program is being put together by Chair-elect Chunping Xie and includes featured speaker presentations by MAA section visitor Tim Chartier (Davidson College), Pólya Lecturer Sarah J. Greenwald (Appalachian State University), and 2021 MAA-WI Distinguished Teaching Award winner Holly Attenborough (UW-Platteville). Please check the section website for up-to-date information about the spring meeting as it becomes available. Your talk and/or students’ talks would be welcome additions to the program.

Best wishes to you and yours for safety, health, and happiness in 2022.

Section NExT-Wisconsin
by Wesley Hough, UW-Whitewater and Niles Armstrong, Milwaukee School of Engineering

2021 Fall Conference

The Section NExT—Wisconsin annual fall conference was held virtually through Zoom on Saturday, October 23, 2021. We were pleased to have keynote speaker Lara Pudwell from Valparaiso University discuss mentoring undergraduate research projects. Eleven members attended the conference, and we had three members contribute presentations in the afternoon.

Section NExT—Wisconsin Director

Wesley Hough’s 3-year term as director of Section NExT-Wisconsin ends in Spring 2022. Niles Armstrong from the Milwaukee School of Engineering has been selected to serve as the new director of Section NExT-Wisconsin, and his three-year term begins in Summer 2022.

2022 Spring Conference

Our Spring 2022 virtual panel is scheduled for Saturday, March 5, 2022, with a theme of “A Teaching Toolbox.” Jonathan Cox (MSOE) will be discussing inquiry-based learning, and Wesley Hough (UW-Whitewater) will be discussing tactile and hybrid activities for calculus. We are awaiting confirmation for a third panelist as well. There will be time for Q & A and discussion after the panel. More information will be sent out through the Section NExT distribution list. If you would like to be added...
to our e-mail list, please contact Wesley Hough at houghw@uww.edu or Niles Armstrong at armstrongn@msoe.edu.

Student Activities Report
By Balamurugan Pandiyan, UW-Whitewater

In the virtual Spring meeting, there will be an activity for students – Online quiz contests. Quiz contests will be held on Friday, April 1, 2022, between 4:00 – 4:45 pm via Zoom. Students are expected to work on the problems individually and submit the answers through the Zoom chat window. There will be awards for top three students– 1st prize $50 Amazon eGift card, 2nd prize $25 eGift card and 3rd prize $10 Starbucks eGift card. To increase awareness about the student activity, the flyers will be distributed to the organizers and speakers. Please encourage your students to attend whether or not they are able to give talks. See this link for the contest flyer.

Wisconsin Math Council Representative’s Report
By Erick Hofacker, UW-River Falls

In 2020 I was asked to chair the grades 6-12 committees for the revision of our K-12 mathematics standards in the state of Wisconsin. Over that next year I had the opportunity to work with a lot of great people that work in K-12 mathematics education as well as university faculty to make updates to what our state adopted back in 2010 when the Common Core State Standards were released. Based on the public feedback we received before starting the process, people did not want to see a complete overhaul to what we have been working to implement and make work in our state. Instead, they asked for modifications and clarifications. After a year of work, the Wisconsin Standards for Mathematics were officially adopted in the summer of 2021. I’ll provide an overview of some of the revisions, but you can access the full document at this link.

Specific to K-12, the revised document emphasizes mathematical modeling at all grade levels (K-12), not just in high school. All students will ask questions, make assumptions, have choices, and work with messy problems. This inclusion aligns with the GAIMME report (2016). A second update that was made was grade band specific examples of what the Standards for Mathematical Practice (Mathematical Habits of Mind) at the K-5, 6-8, and 9-12 levels. These examples give teachers a better understanding of how they can be implemented while connecting to the different content they teach. A third update is the inclusion of two new shifts. Our previous standards included three shifts which focused on rigor, coherence, and focus. Our new shift #1 promotes fostering mathematical identity and agency in all students. Shift #2 encourages students to be flexible users of mathematics, which calls for an intentional pairing of the Standards for Mathematical Practice and Content.

Specific to high school, the standards revision now includes specific standards that are marked F2Y. These are standards we believe are important for all students to have access and experiences with in the first two years of their study of high school mathematics. The committee felt strong that F2Y standards come from all five conceptual categories of mathematics: algebra, function, number & quantity, geometry, and statistics & probability. Other organizations in the state are continuing the work to define pathways and potential course offerings that can serve students in their third or fourth year of mathematical offerings. A second update is the emphasis on thinking of the standards as being connected together as clusters and across the different conceptual categories. Our introductions to each conceptual category section provides examples that link standards, so they are not thought of in isolation. We also updated how mathematical modeling is viewed in high school by encouraging modeling to be incorporated within clusters rather than individual standards. A third update was adding additional examples to specific standards, rephrasing standards for clarity and the elimination of some standards. Overall, the standards serve as an update which will allow us to continue to build on our work over the last decade and provide direction and encouragement for how we can best serve all of our K -12 mathematics students in the state of Wisconsin.
89th Annual Meeting of MAA Wisconsin Section  
March 31-April 2, 2022, Online Via ZOOM

Organization

MAA Wisconsin Section will organize an online conference this year. The executive committee formed a program committee to collaboratively develop the plans offered here. The program committee was headed by the Chair-Elect of Wisconsin MAA and included the chair, the Secretary-Treasurer, and the Public Information Officer. The committee also sought advice from the student contests coordinator and the Section NExT-WI Director. We hope to provide an enjoyable and rewarding online conference experience.

The meeting will be conducted using MAA’s Zoom platform. Opportunities to socialize online will be provided for thirty minutes before each invited speaker’s presentation. A complete and final program will be available online before the meeting begins. It will include a mix of day and evening events.

Please check the MAA Wisconsin section website regularly for the latest information available. Send any questions you have to wi-maa-2022@msoe.edu.

Contributed Talks

Time for contributed talks is available during the afternoons on Thursday, March 31, and Friday, April 1. More time is available in the morning and early afternoon on Saturday, April 2. The contributed talks are offered in parallel sessions. Please note that registering a contributed talk does not register you for the conference. Submission deadline is March 11, 2022. Talks received after March 11 will be considered only as time and space permit.

Non-Students: Talks of all kinds are welcome, particularly ones that are accessible to students. Presentations are 25 minutes, including time for questions. If you wish to present a talk, please complete the form at https://www.emailmeform.com/builder/emf/maawi/spring2022talk.

Vendor and product-related presentations should address the relevance of their content to the MAA community and are subject to Executive Committee approval.

Students: The Wisconsin Section of the MAA welcomes and encourages undergraduate students who have done research in mathematics to give a 25-minute presentation about their work individually or in groups at the spring meeting. If you wish to present a talk, please complete the form at https://www.emailmeform.com/builder/emf/maawi/spring2022student.

Registration

You must be registered to attend any meeting-related activity. Registration is free for students and $10 for all others. Registration deadline is March 30, 2022. To register, complete the form at https://www.emailmeform.com/builder/emf/maawi/spring2022reg.

Please check the MAA Wisconsin section website regularly for the latest information available. Send any questions you have to wi-maa-2022@msoe.edu.
Invited Speakers

Holly Attenborough, University of Wisconsin-Platteville

In Favor of History Tidbits in Class and the Ideal Result of Fermat’s Last Theorem

Abstract: In this talk I will discuss a bit of my journey from hate to love of history: how it has fueled a deeper appreciation of mathematics, bringing more context to my students and to me. The talk will finish with one of my favorite stories from the history of mathematics and how to use this story as a powerful educational device. To tell these tales, we will discuss some historical context of calculus and how false proofs of Fermat’s Last Theorem led to the development of a very important modern tool in abstract algebra.

Tim Chartier, Davidson College

Get in the Game: Math and Sports Analytics

Abstract: Sports analytics has gathered tremendous momentum as one of the most dynamic fields. Diving deep into the numbers of sports can be game changing or simply a fun exercise for fans. How do you get in the game with numbers? What questions can be explored? What actionable insights can be gleaned? From March Madness to national media broadcasts, analytics are becoming increasingly indispensable. Dr. Tim Chartier will discuss outlooks that help with successful analytics, and the variety of questions that can be tackled. He will also share how he leads students to dig into sports using math and computer science, and their great success across the NBA, NFL, NASCAR, ESPN and his own college teams. Learn how to get in the game — as a sports analyst!

Sarah J. Greenwald, Appalachian State University

Popular Culture and Mathematics: Gender, Race, and Broader Implications

Abstract: Mathematics and statistics are pervasive in modern society, but have you ever known anyone who asserted that they do not have the "math gene" or mistrusts science, statistics, or mathematics? Popular culture can reveal, reflect, and even shape how society views mathematics and mathematicians. We'll analyze examples from a variety of shows and films and consider the intersections of gender, race, class, ability, and more. We'll also discuss ways to counter stereotypes and contribute to research in this area. At the same time we'll reflect more broadly on what mathematics has to offer, and the diverse ways that people can succeed in making an impact, including you!
Candidate for Chair-Elect

Petre Nelu Ghenciu received his Ph.D. degree in Mathematics from the University of North Texas. He joined University of Wisconsin-Stout as an Assistant Professor in the Mathematics, Statistics, and Computer Science Department in 2004. He has been promoted to Professor of Mathematics in 2014 and elected in 2017 as the MSCS Department Chair. He won the UW-Stout Outstanding Teacher Award 2009-2010 and most recently served as the UW-Stout Team Leader for the UW-System Mathematics Initiative, a 3-year long project. He has published in peer reviewed national and international journals and attended numerous regional, national, and international conferences. Dr. Ghenciu strongly believes in the principle of shared governance; he served as UW-Stout Faculty Senate Chair from 2013 to 2019 and is serving a 2-year term from 2021 to 2023.

Dr. Ghenci is a member of MAA and has been active in the activities of MAA sections both at MAA Texas Section in the past and MAA Wisconsin Section currently. He periodically gives talks at the Section Meetings. He is willing and fully ready to serve the Wisconsin Section through the Chair-Elect role.

Nominations Welcomed

The Section continually seeks nominations for Chair-Elect. This is a three-year, elected 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 Chair becomes 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 Ken Price at pricek@uwosh.edu. Self-nominations are encouraged. Section officers must be members of the MAA. For more information on the duties of the MAA-Wisconsin Executive Committee, see the Executive Committee Handbook.

Distinguished Teaching Award

Nominations for the 2022 Wisconsin Section Distinguished Teaching Award are still being accepted. The deadline for consideration for this year’s award is March 1, 2022. The nomination form and instructions are available on the MAA-Wisconsin web site at http://section.maa.org/wisconsin/award.html.

News To Share?

If you have relevant information for future newsletters, contact the Public Information Office Anthony van Groningen at vangroningen@msoe.edu. Have you considered using MAA Connect to reach Wisconsin Mathematicians? Sign up and join the Wisconsin Section community. MAA Connect can be found at https://connect.maa.org.

Know Your Wisconsin Mathematician

KYWM will return this Fall. If you have suggestions for colleagues whose career has inspired you, please share your recommendation by emailing vangroningen@msoe.edu. In the meantime, consider reading some past editions on the Section website.

Katherine Harris was recognized by SIAM for participating in the MAA’s Project NExT program.


Feroz Siddique is currently serving as the President Elect for WisMATYC, the Wisconsin chapter for American Mathematical Association for Two Year Colleges (AMATYC).

Feroz Siddique had a paper appear in the International Electronic Journal of Algebra (IEJA) titled “*On two questions of Nicholson*”.

Barron County Campus

Feroz Siddique will present his poster titled “Concordances of linear combinations of T(2,q) torus knots to L-space knots”.

Samantha Maurer will present her poster titled “A 3D printed Arduino powered electronic Barth Sextic”.

In January 2022, Silviana Amethyst co-taught the AMS Short Course on 3D Printing: Challenges and Applications. Though the JMM was postponed, the short course was successfully delivered as originally scheduled in an online format, including six lectures, two show and tell sessions, and two workshops. Silviana presented a lecture called "Augmenting 3D printed objects for interactivity".

Mckenzie West and her grant co-organizers from the Number Theory Foundation are in the planning phase of the Rethinking Number Theory workshop, scheduled to occur June 20 through July 1 this summer.

aBa Mbirika presented a talk at High Point University titled “*Mind-blowingly awesome subsequences in the Fibonacci sequence modulo 10*”.

Katrina Rothrock presented at the 2022 Virtual National Research Conference for NCTM (National Council of Teachers of Mathematics) with her advisor, Dr. Susan Gay. They had a poster, “Mathematical Perceptions of Self Among First-time College Freshmen.” Dr. Rothrock was accepted as a 2022-2023 STaR (Service Teaching and Research) Fellow through the AMTE (Association of Mathematics Teacher Educators), following in the footsteps of Melissa Troudt who was in the 2020-2021 Cohort of Fellows.

Colleen Duffy was recently elected to be a board member for the Harlaxton Society (effective Jan. 1, 2022). The Harlaxton Society is the alumni association for Harlaxton College, UK, which is the study abroad campus for the University of Evansville, for which many UWEC students have participated over the years. The Board is in charge of fundraising for scholarships and to support the program and organizing events to keep people connected and engaged.

Speaking of studying abroad, UWEC student Dan Guyer is currently spending a semester abroad in Budapest, Hungary, in the Budapest Semester in Mathematics program.

Emeritus faculty James S. Walker has a book chapter, Symmetry and Art, to be published in the forthcoming Handbook of Complex Analysis (CRC Press, Ed. Steven G. Krantz). He co-authored the chapter with his former UWEC student, Emily J. Gullerud, who is pursuing a Ph.D. in mathematics at the Univ. of Minnesota.

Christopher Davis, Patrick Orson (Max Planck Institute of Mathematics), and JungHwan Park (Georgia Institute of Technology) had a paper appear in Selecta Mathematica titled “The relative Whitney trick and its applications”.

aBa Mbirika and UWEC student Dan Guyer had a paper appear in the Journal of Integer Sequences titled “GCD of sums of k consecutive Fibonacci, Lucas, and generalized Fibonacci numbers”.

Emerita faculty Carolyn Hopp added a new addition to her family, a beautiful cat named Archimedes (Archie for short). Meow.

UW-Milwaukee
By Jonah Gaster

Graduating senior Olivia Peterson attended the Budapest Semester in Mathematics, which brings together American and Canadian undergraduates to study mathematics under Hungarian professors hailing from the country’s top universities. Though she began her UWM career not planning on a major in the math department, Olivia has applied to graduate programs and expects to continue her studies. We look forward to her next steps and a bright career!

Xianwei Van Harpen, senior lecturer in our math department, will be one of UWM’s representatives to the UW Faculty College in 2022. Faculty College 2022 is designed as an institute/retreat for university teams who ideally work together with their center for teaching and learning to address campus-identified challenges of the theme for Faculty College 2022 – Teaching and Learning with a Social Justice Lens. This theme aligns with UWM’s 2030 Strategic Initiative to support our increasingly diverse students to succeed through graduation, and applies to all disciplinary areas and teaching/learning contexts.

Jay Beder will publish a graduate-level statistics book “Linear Models and Design”, with Springer. Professor Beder composed the book over several years of teaching statistics in our department.

Recent alumnus Alex Heaton, who received his PhD under the supervision of Jeb Willenbring, joined the faculty at Lawrence University this past Fall. Congratulations Alex!

Kelly Kohlmetz was awarded the Carnegie Math Pathways Hero award. Quoting from the remarkable award letter: “[Your contributions have been] a heroic effort. Your dedication has made a difference to the success of the Carnegie Math Pathways, and most importantly to the success of tens of thousands of students, who are benefitting from a more empowering and equitable math learning experience.” Congratulations Kelly!

PhD student Andrew Whetten, along with Hannah Demailer, a plant sciences graduate student at University of Illinois, were awarded honorable mention (a 2nd place award) in the American Statistical Association’s ENVR Data Challenge 2021. Congrats Andrew!

Amie Wilkinson, of the University of Chicago, will deliver the 2022 Marden Lecture in Mathematics at UWM this Spring Semester. Professor Wilkinson is a world-renowned expert in dynamical systems on smooth manifolds, and has made many contributions at the interplay of dynamics with geometry, algebra, and topology. The date, time, location, and title are yet to be determined.

The department has had three retirements since our last update. Professor Jay Beder earned his PhD in 1981 in Statistics, published 23 articles on topics in probability theory, supervised 6 PhD students, served as Assistant
Chair, and was active on the Undergraduate Committee. Professor Yi Ming Zou earned his PhD in 1991 in Algebra, published 37 articles on various topics in Lie theory, supervised 5 PhD students, served as Graduate Program Coordinator, and was active on the Graduate Committee. Professor Hans Volkmer earned his PhD in 1979 in Analysis, published 136 articles on various topics in Analysis and Differential Equations, and supervised 4 PhD students. Professors Beder, Volkmer, and Zou were all great colleagues, and will be missed!

**UW-Oshkosh**  
*By John Beam*

We extend a warm welcome to John Zhang, the newest member of our academic staff. John comes to UW Oshkosh Access Campuses from Michigan by way of Chicago and Boston. He has an MBA from University of Michigan Ross School of Business. He has years of experience tutoring math and teaching as a course assistant. He has two boys and resides in Appleton. You might also see him on stage with UW Fox Valley or other community theater groups. His favorite decimal value of pi is 7, which occurs in the 13th digit.

Liem Nguyen, a graduate of UWO, completed a Ph.D. in mathematics at Louisiana State University in August 2021 and is currently a visiting assistant professor at Haverford College.

Under the direction of Eric Kuennen, UWO will be hosting its fourth annual Mathematical Problem Solving Contest for students in grades 7-10. The contest, to be held on April 21, is expected to attract about 1,000 students from around the state.

**UW-Stout**  
*By Steven Deckelman*

Chris Bendel co-organized a special session (on Cohomology, Representation Theory, and Lie Theory) at the (virtual) Fall AMS Southeastern Sectional Meeting.

Nelu Ghenciu was nominated and has accepted to run for the MAA WI chair-elect this year.


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### MAA-Wisconsin Executive Committee

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<tr>
<th>Position</th>
<th>Name</th>
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<tbody>
<tr>
<td>Representative to the MAA Congress</td>
<td>Tom Drucker, UW-Whitewater</td>
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<tr>
<td>Chair</td>
<td>Ken Price, UW-Oshkosh</td>
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<td>Secretary-Treasurer</td>
<td>Jonathan Kane, UW-Madison</td>
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<td>Chair-Elect</td>
<td>Chunping Xie, Milwaukee School of Engineering</td>
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<td>Immediate Past Chair</td>
<td>Kseniya Fuhrman, Milwaukee School of Engineering</td>
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<td>Math Contest Coordinator</td>
<td>Gabriella Pinter, UW-Milwaukee</td>
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<td>Coordinator of Student Activities</td>
<td>Balamurugan Pandiyan, UW-Whitewater</td>
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<td>MAA Representative to the Wisconsin Math Council</td>
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