Michigan Section Mathematical Association of America NEWSLETTER

VOLUME 45, ISSUE 1

NOVEMBER 2018

Read these and other stories online at sections.maa.org/michigan/history.html#newsletter_archive.

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The 61th MMPC Honors Top Students 7 Andy Poe (Northern Michigan U) reports on the 61th annual Michigan Mathematics Prize Competition which took place last October.





Call for Teaching Award Nominations 24 Nominate an outstanding instructor from your department for the section's 2019 Distinguished Teaching Award. Nominations are due December 14, 2018.



Reports from the Executive Board

Chair's Report

I hope this newsletter finds you doing well and looking forward to a nice holiday season.

In my report for this issue, I would like to talk a little about community. That's what the MAA is about, and what our Michigan Section



Victor Piercey (Ferris State U) <piercev1@ferris.edu>

is about — community. The strength of our communities was on display this past March at the Tri-Section meeting, where a total of 373 people registered and attended from the Illinois, Indiana, and Michigan sections. In early October, I attended the 2018 MAA Michigan Section Upper Peninsula Regional meeting, and found another thriving community.

Communities are critical for our humanity. By forging common bonds, we have outlets to celebrate our triumphs, and support in our times of need. The Michigan Section of the MAA is a community built on our common love for mathematics and our care for the profession. While we have never stated it explicitly, I believe one of our values is an openness to all in Michigan who share that love of mathematics.

In order to make this value explicit, the executive board has adopted a goal of making our section more inclusive. Part of this involves examining how diverse and inclusive our section currently is. In addition, we are beginning to build relationships with other organizations dedicated to inclusion and equity.

Diversity and inclusion go beyond traditional categories. We often think only in terms of categories such as race, ethnicity, and gender, but there are other categories: rural vs. urban, able vs. disabled, first-generation vs. multi-generation, and so on. As I attended the Upper Peninsula Regional meeting, I realized that our "yoopers" are a community that doesn't always have much contact with those under the bridge. Our task — not just the executive board, but as a section — is to find ways to remove barriers, so that all voices can be included in our community, and all can enjoy the benefits of the section. As one example, we want to ensure that young and new faculty in Michigan are represented in our section. As such, we are considering restarting Section NExT in our state, an idea which has been raised by **David Murphy** (Hillsdale C) and **John Fink** (Kalamazoo C), among others. We have discussed the possibility that new faculty in Michigan may already be well served. We could also set aside time at the Annual Meeting specifically for new faculty to meet one another and discuss common questions.

These ideas are the beginning of what we view as a longterm initiative. We plan on using our section meeting to intentionally strengthen the bonds of this community and make it more inclusive. We are also looking for ideas, descriptions of barriers, feedback, and anything else that can help the section move this forward.

Thank you for being part of our community. I look forward to hearing from you, and I hope to see as many of you as possible at our Annual Meeting at the University of Detroit Mercy on April 5–6, 2019!

Four-Year Vice Chair's Report

In 2019, the Annual Meeting of the Michigan Section of the MAA and Mich-MATYC will be held Friday and Saturday, April 5–6, at University of Detroit Mercy. The program committee is proud to announce a program that includes five in-



Nancy Colwell (SVSU) <nccolwel@svsu.edu>

fluential plenary speakers: **Roni Ellington** of Morgan State University, **Candice Price** of San Diego State University, **James Sellers** of The Pennsylvania State University and Secretary of the MAA, **Amanda Serenevy** of Riverbend Community Math Center, and **Suzanne Weekes** of Worcester Polytechnic Institute. The program will also feature locally invited speakers from Michigan.

The theme of this year's meeting is "Mathematics for Everyone — Outreach and Inclusion in the Math Community." In keeping with this theme, the program will include a panel discussion on community outreach programs, featuring collegiate mathematics professors and students who have created programs that attempt to close the math gap in their surrounding communities. The 2019 program will also feature a pre-conference workshop Friday morning on "Teaching with Inquiry-Based Learning (IBL)," facilitated by the Center for Inquiry Based Learning at the University of Michigan. Full details about the program schedule, including speaker information, will appear in the Spring 2019 Newsletter and on the section website <sections.maa.org/michigan/meetings/ 2019_Spring_annual_meeting.html>.

As always, contributed talks form an essential component of the Annual Meeting. Giving a contributed talk is an excellent way to share your scholarly work, become better acquainted with your Michigan colleagues, and foster opportunities for collaborative work. Talks may focus on any subject related to mathematics: mathematical scholarship, expository mathematics, or issues related to curriculum or pedagogy in the collegiate classroom. This year we will also be introducing the opportunity to present your work as a poster presentation.

Contributions from students, graduate and undergraduate, are specially welcomed. Faculty should encourage their students to consider this opportunity. The Ron Mosier Memorial Award will again be presented to the student(s) with the most outstanding talk. Instructions for submitting abstracts for one of the contributed sessions are included in the Annual Meeting Call for Papers on page 10.

The meeting is scheduled to begin Friday afternoon and run through mid-afternoon on Saturday. There will be a banquet Friday evening and a luncheon on Saturday. As is our custom, the section will present both a teaching award and a service award at the Friday banquet. Both the banquet and luncheon will be followed by a plenary talk.

The 2019 program committee consists of Nancy Colwell (SVSU), Dawn Archey (U Detroit Mercy), Amy Hlavacek (SVSU), Natascha Rivet (Delta C), and Amy Shell-Gellasch (EMU). The local arrangements chair is Jeffery Boats (U Detroit Mercy). Please send any questions, concerns, or suggestions regarding the program to Nancy Colwell <nccolwel@svsu.edu>.

Section Representative's Report

Joint Meetings to End After 2021

As you may have heard, the big news from the MAA is that the agreement with the AMS to jointly run the Joint Mathematics Meetings will end following the JMM in 2021. The main reason for this appears to have been that the business interests of the two organizations,



Steven Schlicker (GVSU) <schlicks@gvsu.edu>

and to a substantial extent, the approach to managing the scientific program, simply did not align. After 2021, the MAA national meeting activities will occur at MAA MathFest in the summer. However, the AMS and MAA agree that certain joint activities will continue. Other activities that normally occur during the JMM, like Project NExT, may continue, but the conditions under which that might happen have yet to be discussed. Exactly how the MAA will participate in the winter meeting in the future is up for discussion. Whatever that might be, the expectation is that it will be modest. MAA President Deanna Haunsperger indicated that managing the transition will necessarily involve strategic planning, and the MAA looks forward to engaging the Congress to help set priorities for the future. The article, Meeting the Future <bit.ly/MeetingTheFuture>, in the October/November issue of MAA Focus provides more details. You can also read the AMS post <www.ams.org/news?news id=4582> about this decision. The MAA plans to hold online "office hours" for members of Congress to visit with members of the MAA Board of Directors to discuss what these changes might mean to the MAA and the potential benefits and opportunities this action presents.

News from MathFest

MathFest in Denver was a big success. In addition to the excellent program, our own **David Clark** (GVSU) received the Henry L. Alder Award for Distinguished Teaching by a Beginning College or University Mathematics Faculty Member. This award is to honor beginning college or university faculty whose teaching has been extraordinarily successful, and whose effectiveness in teaching undergraduate mathematics is shown to have influence beyond their own classrooms. Please congratulate David when you next see him.

Gerard Venema (Calvin College) stepped down from his role as MAA Associate Secretary. Gerard did a fantastic job with the scientific program at MathFest and the JMM. When you see Gerard, thank him for his many contributions to the association.

The Congress meeting at MathFest was productive. Rather than providing too many details here, I refer you to the article "An Engaged Congress: MAA MathFest" <bit.ly/EngagedCongress> by Melissa Erdman and Jenny Quinn in the October/November issue of MAA Focus. I will expand on one item in this article. As part of the Congress meeting we created several task forces called Congress Learning Community (CLiCs) to address issues for the Congress in the future. There are several different CLiCs: Community of K-12 Students and Teachers, Community of Students Activities and Sections, Inclusivity, Communication (MAA Publications/Talks), Reading/Listening Activities at the JMM, Teaching and Learning (and Professional Development), Mission and Membership, Math Beyond the MAA. Each CLiC will work throughout the academic year to learn about their theme, communicate highlights to Congress, and then to serve as a resource on that CLiC's topic.

Section Representative to be Elected at Section Meeting

This is my final year as Representative of the Michigan Section. It has been an honor to serve the section in this capacity. This year we will be electing a new Representative for the section. A nominating committee will put forth two names, the candidates will submit statements for the position, and then the section members will select their new Representative. I hope you will take the time to read the statements and to vote in this election. The Congress plays an important role in the association as the voice of the members, so this election matters.

Just a reminder that the 2019 Annual Meeting of the Section will be held at the University of Detroit Mercy, April 5–6, 2019. The Program Committee has put together an excellent program; see the Four-Year Vice Chair's Report for more details. Please consider presenting at the conference. I hope to see you there.

Finally, the antepenultimate Joint Mathematics Meetings will be in Baltimore, January 16–19, 2019. Among the great list of invited speakers is **Sarah Koch** from the University of Michigan, whose talk is titled "What is the Shape of a Rational Map?" and **David Bressoud**, who will speak on "Reflections on Teaching Calculus for the First Time, 45 Times." It looks like the MAA and AMS are again putting on a great program, and I look forward to seeing you there.

Join the MAA!

The MAA is a professional society whose mission is to advance the mathematical sciences, especially at the collegiate level. MAA members include high school teachers, college professors, undergraduate and graduate students, pure and applied mathematicians, statisticians, computer scientists, and many others in academia, government, business, and industry. As a member, you will enjoy registration discounts at national meetings, electronic subscriptions to all MAA journals and magazines, automatic enrollment in your local MAA section, and access to employment services and exclusive online resources. To become a member, or to learn more about what the MAA can offer you, visit maa.org.

Graduate studies at



For information about any of our programs or how to apply, contact:

Graduate Coordinator Department of Mathematics Central Michigan University Mount Pleasant, MI 48859 phone: (989) 774-3596 fax: (989) 774-2414 mthgrad@cmich.edu www.mth.cmich.edu

CMU, an AA/EO institution, strongly and actively strives to increase diversity within its community (see https://www.cmich.edu/aaeo).

Ph.D. in Mathematical Sciences

The Ph.D. degree is designed to prepare individuals for a career in college teaching and research, as well as other careers that require the knowledge of advanced mathematics. The program consists of broadly distributed coursework, professional pedagogical components, teaching internships, and a dissertation. Areas of research strength include algebra, algebraic geometry, approximation theory, combinatorics, complex analysis, computational mathematics, differential geometry, ethnomathematics, fluid dynamics, functional analysis, mathematical biology, mathematics education, operator theory, and representation theory.

M.A. in Mathematics

The M.A. degree has an emphasis in the more computational aspects of mathematics for students who are interested in jobs in business, industry, and government. The degree program also retains the flexibility to prepare students for teaching mathematics at the undergraduate level or to undertake doctoral work in mathematics.



Secretary-Treasurer's Report

The Section's current bank balance (as of October 15) is \$9,017.68. This is again higher than our balance of one year ago, in large part due to the *Newsletter* moving online. In addition, our financial picture was significantly improved when the Tri-Section meeting last



Mark Bollman (Albion C) <mbollman@albion.edu>

spring led to an unexpected surplus for the Section, approximately \$1,116.13. I would like to thank **Mike Jones** of Mathematical Reviews, who donated his speaker honorarium to the Section, for his generous support.

It should be noted that the Washington office recommends that sections hold no more than 2.5–3 times their annual expenses in reserve, which for our section would be approximately \$10,000. The Michigan Section has usually run well under this recommendation. The Section has some support from the Washington office of the MAA, advertising revenue, and occasional other sources, but most of the Section's income is from the voluntary dues payments of the members.

By now, Section members should have received their annual dues mailing. The voluntary dues contribution for an individual dues-paying membership remains \$15, or \$30 (or more) for a sustaining membership. We are again offering the option to pay voluntary Section dues online through PayPal (www.paypal.com). Online payments using PayPal should be directed to <<u>MichiganSectionDues@gmail.com</u>>.

Institutional membership dues are \$40 or \$70, depending on the size of the institution. Institutional members will receive the end-of-year report from the Michigan Mathematics Prize Competition, and also have access to a database of all MMPC Part II participants to aid in recruiting efforts.

The members of the Executive Committee continue to appreciate your support of the Section's activities through your voluntary contributions.



Get Funded

MAA offers funding opportunities for college and university mathematical sciences faculty to improve teaching, learning, and student engagement. Ask us how to get funded.

- Dolciani Mathematics Enrichment Grants support projects designed to develop mathematical enrichment programs for talented students in middle or high school.
- **National Research Experience for Undergraduates Program** supports the participation of math students from underrepresented groups in summer research experiences to increase their interest in advanced degrees and careers in mathematics.
- **Tensor-SUMMA** (Strengthening Underrepresented Minority Mathematics Achievement) grants support programs designed to encourage pursuit and enjoyment of mathematics among middle school, high school, and/or beginning college students from groups traditionally underrepresented in the field of mathematics.
- **Tensor Grants for Women and Mathematics** support projects designed to encourage college, university, and pre-college women to study mathematics.
- The **Preparation for Industrial Careers in Mathematics (PIC Math)** program prepares mathematical sciences students for industrial careers by engaging them in real-world industry-created research problems.
- Attend MAA workshops on topics such as graduate TA training, data science, and preparing pre-service teachers, and receive travel funding for doing so through the **StatPREP, CoMInDS**, and **META Math** projects.

Learn more at maa.org/programs

Webmaster's Report

Paul Pearson (Hope C) <pearsonp@hope.edu>

As your webmaster, my goal is to make it easy for you to find the information you want. I maintain our section's website <sections.maa.org/michigan/>, including updating pages on the history of the section, our Annual Meetings, the Distinguished Teaching Award, and links to events such as the Michigan Mathematics Prize Competition and other mathematics conferences being held across Michigan and nationally.

Several years ago I redesigned our website so that it looks good and functions well on phones and tablets as well as desktops. Please let me know if you have any updates you want me to make or have suggestions for improvement.



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MMPC Director's Report

The 61st MMPC (2017-2018) Honors Top Students

Andy Poe (NMU) <apoe@nmu.edu>

The top 100 scorers of the 2017–2018 Michigan Mathematics Prize Competition were invited to attend the annual banquet on Saturday, March 10, 2018 at Albion College. Professor **Daniel Rowe** of Northern Michigan

University delivered a well-received keynote address in which he extolled the beauty of mathematics. A delicious pasta buffet was revealed for dinner and then the assembly honored Michigan's most gifted high school math students. Table 1 shows the top 10 MMPC Competitors for 2017–2018.

School	Award
Skyline High School	Gold (1st level)
Pioneer High School	Gold (2nd level)
Troy High School	Gold (3rd level)
Troy High School	Silver (1st level)
The Roeper School	Silver (1st level)
Troy High School	Silver (1st level)
Troy High School	Silver (2nd level)
Novi High School	Silver (3rd level)
Troy High School	Silver (3rd level)
Troy High School	Silver (3rd level)
	School Skyline High School Pioneer High School Troy High School Troy High School Troy High School Troy High School Novi High School Troy High School Troy High School Troy High School

Table 1: MMPC 2017-2018 top 10 Competitors

The 40 students placing 11th–50th received Bronze Awards. These top 50 finishers shared \$20,000 in scholarships ranging in value from \$250 to \$2500. Honorable Mention Awards went to those students placing 51st–100th. These students received a copy of *Origami, Eleusis, and the Soma Cube* by Martin Gardner.

In addition, there were a dozen raffle prizes — most of them gag gifts, but also some calculators compliments of Mu Alpha Theta, a mathematics honor society for students in high school and two-year colleges.

Albion College

Andy Poe addresses the winners and their guests.

Ruth Favro (LTU), a long-time champion of women in mathematics, presented the award to our top female competitor (who was also the top competitor overall), **Grace Zheng** of Skyline High School in Ann Arbor.

As the names of the MMPC winners are kept secret until the awards banquet, the above winners were not included in the *Newsletter* this past spring. However, that issue (Volume 44, Issue 2, March, 2018) does contain the Part II problems along with mean scores by problem, grade, and gender.



Cap Khoury (Everi Games), Mark Bollman (Albion U), Ruth Favro (LTU), and David Friday (Macomb CC) serve as coaches for the Michigan All-Stars teams.



Dan Rowe (NMU), along with Yeon Kim (CMU), Eddie Cheng (Oakland U), Nancy Colwell (SVSU), Dan Frohardt (Wayne State U), and Ruth Favro (Lawrence Tech U), ready to grade. See box on this page for details on how you can help!



Chittesh Thavamani, Freddie Zhao, Steven Raphael, Reagan Choi, Jason Hu, and Grace Zheng are gold and silver winners.

Interested in grading the next Michigan Mathematics Prize Competition? Grading day will be held on Saturday, January 12, 2019 at Albion College, from approximately 9am to 1 pm. For details, please contact Andy Poe <apoe@nmu.edu>.

In Memoriam: Robert T. Xeras

Sam Abraham (Siena Heights U) and Jeff Kallenbach (Siena Heights U) <jkallenb@sienaheights.edu>

Robert (Bob) Thomas Xeras passed away peacefully on Tuesday June 19, 2018 at his home surrounded by his loving family after a three year fight with prostate cancer.



Bob was born on July 10, 1939 in Detroit. He received his undergraduate degree from the University of Detroit and his Master's degree from Wayne State University. He served in the United States Marine Corps in Vietnam.

Bob taught mathematics at Lawrence Technological University, and also worked as a systems analyst for 30 years at St. Joseph Mercy Hospital in Ann Arbor. In 1998, he retired from Siena Heights University in Adrian after teaching mathematics and computer infor-

mation classes for 20 years. While at Siena Heights, he also served as the chair of the Computer and Information Systems program. Even after retirement, Bob maintained a presence at SHU, volunteering a helping hand whenever we needed one for a meeting, conference, tutoring, etc. He is remembered here by all for his wonderful jokes and friendly laugh. Besides math, computer science, and teaching, he was also passionate about environmental and political issues.

Bob proudly served many years in Marine Corps Reserve. He was an active member of St. Joseph Church in Adrian and served the parish as lector, eucharistic minister, and usher. He was very active at the American Legion, Knights of Columbus, and many other civic organizations.

Editor's note: Bob's volunteer work also extended to our Michigan Section of the MAA — he served over 17 years as our Public Information Officer.

Annual Meeting Call for Papers

Nancy Colwell (SVSU) <nccolwel@svsu.edu>

The Michigan Section of the MAA invites papers or posters from faculty and students for the 2019 Annual Meeting, to be held April 5–6, 2019 at University of Detroit Mercy.

Abstracts should be sent via email to Nancy Colwell <<u>nccolwel@svsu.edu</u>> with "MAA Contributed Talk" or "MAA Contributed Poster" in the subject line. Talks and posters may focus on any subject related to mathematics: mathematical scholarship, expository mathematics, or issues related to curriculum or pedagogy in the colle-

giate classroom.

Talks should be 20 minutes in length, including a few minutes for questions. Your abstract must include your name, affiliation, home or office address, phone number, email address, and any equipment needs for your presentation. If you have any questions, please contact Nancy Colwell at the above address.

The deadline for abstracts is Friday, March 1, 2019 for papers, and Friday, March 15, 2019 for posters or papers presented by undergraduates.

Abstracts received after the deadlines will be considered as space permits.

WHO WILL GET PAID TO GET A PHD? SPARTANS WILL.

Michigan State University

is accepting applications for its **Doctoral Program in Mathematics Education**

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- Administered jointly by the Colleges of Natural Science and Education.
- This program prepares researchers to address critical issues in mathematics teaching, learning, curriculum and policy.



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Assistantships include tuition waiver, health insurance, and stipend. Requirement: an undergraduate major in mathematics or the equivalent. Teaching experience is preferred, but not required. **Apply now!**



Program in Mathematics Education MICHIGAN STATE UNIVERSITY For more information on this program, please contact: Lisa Keller, Assistant Director of PRIME 517.432.5472 | kellerl@msu.edu https://prime.natsci.msu.edu

Campus News

Alpena Community College

Dan Rothe <rothed@alpenacc.edu>

The fall semester has begun here at ACC. Dual enrollment and early college programs continue to help the enrollment in our Calculus I, College Algebra, and Precalc classes. **Meghan Cameron** and **Jim Berles** continue to experiment with online homework in the Arithmetic, Elementary Algebra, and this semester also the Intermediate Algebra classes. We adopted a new Precalculus textbook from XYZ publishing which saves students some money and so far it seems to be going well. Math instructor **Mike Kelley** is our new union president for the ACC Faculty Council for the 2018–2019 school year.

ACC is in the early stages of a remodeling project for

Van Lare Hall (our oldest building). When it is finished, the nursing program will be moving into the renovated space. In the meantime, math will be moving to a temporary location at the end of the semester. We look forward to an exciting new home for Mathland but there will be some work in the meantime.

Sigma Zeta Math/Science Honor Society took an end of the semester trip to the Fermi II Nuclear Power plant and Detroit Zoo. We had a majority of our members graduating in May so we are in the member search phase to start the next year. New officers for the 2018-2019 school year are: Jessica Grove, President; Grace Balog, Vice President; Laurie Smith, Secretary; and Loren Getzmeyer, Treasurer. Figure 5 shows a picture of Sigma Zeta members in the training mock-up of the control room at Fermi. We are grateful to DTE for a wonderful tour.



ACC Sigma Zeta members at Fermi II

Adrian College

Elizabeth Lamprecht <elamprecht@adrian.edu>

Dr. Anastasia Shabanskaya has joined the Mathematics Department as an Assistant Professor. Her paper, "Solvable extensions of the naturally graded quasi-

Albion College

Mark Bollman <mbollman@albion.edu>

David Reimann has returned from sabbatical, and **Paul Anderson** is on sabbatical this fall. The department welcomes **Buket Aydas** (PhD from Wisconsin-Milwaukee), our new assistant professor of computer science, who will be playing a major part in restoring the computer

Central Michigan University

Ben Salisbury <ben.salisbury@cmich.edu>

Sing-Cheong Ong retired from CMU in August 2018.

Jordan Watts is a new assistant professor in mathematics. Prior to joining CMU, Dr. Watts received his PhD in Mathematics from the University of Toronto in 2012, and held postdoctoral positions at the University of Illinois Urbana-Champaign, the University of Colorado Boulder, and the University of Nebraska-Lincoln.

Tibor Marcinek was promoted to professor.

Olivia Dumitrescu was awarded a grant by the National Science Foundation in Algebra and Number Theory for the project titled "Enumerative Geometry of Hitchin Systems and Topological Quantum Field Theory."

Calvin College

John Ferdinands <ferd@calvin.edu>

Dave Klanderman joined the department this year after several years on the faculty at Trinity Christian College. Dave is a specialist in mathematics education.

Gerard Venema and **Nathan Sunukjian** received a grant from the University of Wisconsin-Milwaukee to

filiform Leibniz algebra of second type," has been accepted for publication in *Communications in Algebra*. **Professor Jo Lynne Hall**, the department's developmental math specialist, is currently working on a Graduate Certificate in Online Teaching and Learning through Michigan State University.

science major that was discontinued in 2010.

Albion has launched a dual-degree program in actuarial science in collaboration with Michigan State University, in which students study for 3 years at Albion and then transfer to MSU for 2 years, completing degrees in mathematics from Albion and actuarial science from MSU.

Meera Mainkar was awarded summer funding for the project "Almost Inner Automorphisms on Nilpotent Lie Groups" with collaborators **Carolyn Gordon** (Dartmouth College), **Tracy Payne** (Idaho State University) and **Cynthia Will** (Universidad Nacional de Cordoba, Argentina) at the Mathematical Sciences Research Institute in Berkley, California.

Olaseni Fadipe, Patrick Davis, Nonhle Channon Mdziniso, Monsikarn Jansrang, Norma Saikali, Yifan Zhang, Tim Reynhout, and Robert Chamblin completed PhD degrees in 2017–2018.

The annual Fleming Lecture Series was held on October 1–2, 2018. This year's speaker was **Anna Sfard** from the University of Haifa, Israel.

fund workshops in Geometric Topology.

Stacey DeRuiter received a grant from Southall Environmental Associates for the project "East Coast Behavioral Response Study 2018." She also received a grant from the Office of Naval Research for the project "Derivation of a Behavioral Risk Function via Opportunistic Passive Acoustic Monitoring of Small Odontocetes in Response to Mid-Frequency Active Sonar Operations."



sph.umich.edu/biostat

Delta College

Frances Lichtman < franceslichtman@delta.edu>

Tim Allen was promoted to the rank of professor. Frances Lichtman was promoted to the rank of associate professor and Beth Kelch was promoted to the

Eastern Michigan University

Carla Tayeh <ctayeh@emich.edu>

We welcome our new colleagues to the department: Jason Gibson, Amy Shell-Gellesch, and Lisa Mitchell. Gabriela Dumitrascu and Andrew Wilfong were promoted to associate professor. Ovidiu Calin is on sabbatical.

Stephanie Casey attended and made three presentations at the recent International Conference on Teaching Statistics in Kyoto, Japan.

Khairul Islam spoke at the 2018 Joint Statistics meeting in Vancouver.

rank of assistant professor.

Delta College hosted the 6th annual Dow Great Lakes Bay STEM Festival on October 12–13, enabling thousands of students and the public to engage in hands-on activities that were designed to peak their interest in science, engineering, and mathematics.

Amy Shell-Gellesch will run a MAA mini-course on "Object Based Learning and the Smithsonian Learning Lab" at the 2019 JMM. Her MAA Notes Volume "The Courses of History" will be out in time for the Joint meetings.

Roxanne Katus continues her grant work from the National Aeronautics and Space Administration (NASA). The project will complete and archive a comprehensive database of magnetospheric ion temperatures derived from NASA's Two Wide-angle Imaging Neutral-atom Spectrometers (TWINS) Energetic Neutral Atom (ENA) instrument.

Stephanie Casey <scasey1@emich.edu> and Andrew Ross <aross15@emich.edu> are writing a new textbook tentatively titled *Introduction to Statistics for Future Secondary Teachers* and are recruiting paid piloters to use the book in the 2019–2020 academic year for the NSF-funded MODULE(S^2) project. If you are curious

Ferris State University

Kirk Weller <KirkWeller@ferris.edu>

The Mathematics Department at Ferris was awarded a joint NSF grant to support student scholarships. **Hengli Jiao** is the PI for the Ferris portion of the grant.

The grant, Sustainable, Scalable Scholarships, Opportunities, Achievements, and Results (S³OAR), is a partnership between two public universities: Northern Kentucky University (NKU) and Ferris State University (FSU). The project objectives are to increase by 10% the STEM enrollment of financially needy, academically or interested in being a piloter, please complete the online form at <tinyurl.com/modules2pilot>. More information about the project is available at the MODULE(S^2) website.

talented undergraduates, particularly those from underrepresented groups in STEM; increase the retention and graduation rates of S³OAR scholarship recipients; document the sustainability and scalability at NKU and FSU of previous interventions; and generate new knowledge by determining the effectiveness of shadowing STEM professionals on the first- to second-year attrition rate of S³OAR scholarship recipients.

Participating in S³OAR from Ferris State University are Biological Sciences; Mathematics; Physical Science; and the STEM baccalaureate programs in FSU's College of Engineering Technology. Ferris will admit 36 students in each of 4 years for a total of 288 S³OAR Scholars.



Hillsdale College

David Murphy <dmurphy@hillsdale.edu>

Thomas Treloar is the new department chair and was

Hope College

Todd Swanson <swansont@hope.edu>

Darin Stephenson returned from sabbatical and **Paul Pearson** is currently on sabbatical. **Dyana Harrelson** returned to the department after a number of years away. **Jill VanderStoep**, **Todd Swanson**, and their coauthors received the Daniel Solow Author's Award from the MAA, presented during Mathfest this past summer, for their textbook *Introduction to Statistical Investigations*.

Lake Superior State University

Brian Snyder <bsnyder@lssu.edu>

Collette Coullard and **Lorraine Gregory** retired after the 2017-18 academic year. Dr. Coullard returned to her alma mater in 2004 after teaching at Northwestern and Purdue with visiting positions at Minnesota, Waterloo and Bonn. Dr. Gregory arrived in 2003 from Duquesne University in Pittsburgh.

Kimberly Muller has been named interim dean of the College of Innovation and Solutions. This new college combines the schools of Mathematics and Computer

Michigan Technological University

Jeanne Meyers <jemeyers@mtu.edu>

We have welcomed new faculty member **Ray Molzon**, who earned his PhD from Michigan Tech in 2012, writing his dissertation in probability theory. He joins the department as a Lecturer in Statistics and will support the new online master's degree in Applied Statistics. He will also act as a mentor for the new Data Science Enterprise.

Professor **Jiguang Sun** will be on sabbatical for the fall semester and Professor **Donald Kreher** will be on

promoted to full professor. **Kevin Gerstle** joined the department as a tenure-track assistant professor in Fall 2018. Previously he had been a visiting assistant professor for two years at Oberlin College.

Students Alyssa Goodwin, Samuel Heilmanand, and Leah Krudy won first place in the Undergraduate Statistics Class Project Competition, a competition for students from around the globe held by The Consortium for the Advancement of Undergraduate Statistics Education and the American Statistical Association. Maya Smith and Lauren Cutler received third place in the same competition. All these students were mentored by Yew-Meng Koh.

Science, Engineering, and Business. **Brian Snyder** has been selected as interim chair, replacing Dr. Muller as department chair while she serves as interim dean.

Daeshik Choi and **Joni Lindsey** have been hired as tenure-track assistant professors. Dr. Choi has his doctorate from the University of Washington in numerical linear algebra and comes to us from Southern Illinois University-Edwardsville. Dr. Lindsey earned her doctorate from Texas State University in mathematics education. **Steven Noren** has been hired as a visiting assistant professor; he recently completed his doctorate at Iowa State University.

sabbatical for the academic year.

The Department hosted the fourth annual Kliakhandler Conference, Graph Decompositions, August 9–11, 2018. Mathematicians from around the United States and several other countries participated. The Kliakhandler Conference is an annual event funded by a generous gift from **Igor Kliakhandler**, a former Michigan Tech faculty member. Associate Professor **Melissa Keranen** organized the conference. In addition to the Kliakhandler gift, Keranen received an \$11,900 grant from the National Science Foundation to support the conference.

Professor Nick Trefethen, Professor of Numerical Anal-

ysis, Oxford, and Global Distinguished Professor, NYU, gave the fourth annual Kliakhandler lecture on Mathematics of the Faraday Cage in which he discussed how the Faraday cage works and told the story of the surprises he and co-authors **Jon Chapman** and **Dave Hewett** encountered along the way. Trefethen also gave a departmental talk on October 5 titled, "Random Functions, Random Odes, and Chebfun." His visit was part of the annual lecture series also supported by Kliakhandler.

Professor **Vladimir Tonchev** has been named one of the inaugural Distinguished Professors at Michigan Tech. The award recognizes outstanding faculty members who

have made substantial contributions to the university and their discipline.

Associate Professor **Yang Yang** is the principal investigator on a three-year project titled "High-Order Numerical Methods for Convection-Diffusion Equations with Unbounded Singularities" that has received a \$237,000 research grant from the National Science Foundation.

The department is excited to announce several new degree programs: an MS in Statistics and PhD in Statistics, effective Fall 2018, which replace the MS and PhD in Mathematics with a concentration in Statistics respectively; and an MS in Applied Statistics, effective Fall 2018.

Northwestern Michigan College

John Pflughoeft <jpflughoeft@nmc.edu>

Ernest East retired from Northwestern Michigan College after 32 years of service. Additionally, **Rebecca Richardson** and **Brianna Mills** have joined the department.

Oakland University

Daniel Steffy <steffy@oakland.edu>

Aycil Cesmelioglu was promoted to the rank of associate professor with tenure. Dorin Drignei was promoted to the rank of professor. Jerry Grossman, Ernie Schochetman, and Barry Turett retired. They had been employed at Oakland University for 44, 50, and 40 years, respectively. Assistant professor Anushaya Mohapatra resigned. During the fall semester Aycil Cesmelioglu and Peter Shi are on sabbatical leave. Tamas Horvath and Moongyu Park joined the department as visiting assistant professors.

We expect to conduct the 24th annual Summer Mathematics Institute for talented local high school students in the summer of 2019. Please visit our website www.oakland.edu/math for more information.

Saginaw Valley State University

Emmanuel Ncheuguim <ekengnin@svsu.edu>

Tony Crachiola's tenure as the chair of the department ended and Thomas Zerger was elected as new the chair starting fall 2018.

The Math Club elected new officers. Starting fall 2018, the officers are: president, **Amanda Brower**; vice president, **Alex Shude**; secretary, **Kaiden Kamp**; treasurer, **Codi Sleight**; and social media, **Lidia Matar**.



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Schoolcraft College

Randy K. Schwartz <rschwart@schoolcraft.edu>

Professors Edward A. Kavanaugh, Sandra J. Kerr, and Paula Schmansky retired this past Summer after Schoolcraft teaching careers of 36, 25, and 7 years, respectively. To help us transition after their retirements, adjunct instructor Katy Shields was appointed as a temporary full-time faculty member for 2018–19.

Amy Shell-Gellasch (Eastern Michigan U) gave a guest lecture on March 16, "Making Sure that Spheres are Spherical: The Spherometers of the Smithsonian." The talk was hosted by the Math and Physics Club. Student **Candice Wiesner** is Club President for 2018–19. Student **Ajay Arora**, an AMS member and entering senior this Fall at Novi High School who is dual-enrolled at Schoolcraft, was awarded our department's \$3000 Pythagorean Prize as the finest mathematics student during 2017–18. That school year, he won first place in the U.S. in the annual AMATYC Student Math League (SML) contest for community college students with a phenomenal score of 77.5 out of 80 points, leading the Schoolcraft team to #3 in the U.S.; and he won eighth place in the Michigan Mathematics Prize Competition (MMPC) for high school students. Ajay, who plans a career in computer science, has done research in graph theory with Professor **Eddie Cheng** (Oakland U) and in computational medicine at Thomas Jefferson University in Philadelphia.

Siena Heights University

Jeffrey Kallenbach <jkallenb@sienaheights.edu>

We are happy to welcome **Nate Iverson** to our full-time faculty. Nate comes to us from the University of Toledo, where he was a lecturer for the last several years. He fills the large void created by the retirement of Professor **Tim Husband**, who in May retired after 41 years in the

University of Michigan-Flint

Mehrdad Simkani <simkani@umflint.edu>

At the 2018 Academic Affairs Convocation, **Cameron McLeman** received the Teaching Excellence Award, and **Laura McLeman** received Provost Teaching Award. **Ricardo Alfaro** has been elected as chair for a three-year term. **Cameron McLeman** is on Sabbatical in Fall 2018,

Western Michigan University

Melinda Koelling <melinda.koelling@wmich.edu>

Thayma Lutz was hired as a faculty specialist; she will work in our developmental math program. Partial retirements began for Christine Browning, Jay Wood, and Nil Mackey. For 2017–18, awards were granted to Taylor R. McNeil (Math Department Presidential Scholar), Kevin Coulter (WMU Mathematics Department Graduate Teaching Award), Jennifer O'Brien (University Graduate Teaching Award), Mary Ochieng (WMU Mathematics Department Graduate Research Award), Sean English (University Graduate Research

Wayne State University

Dan Drucker <aa1856@wayne.edu>

We have three new assistant professors.

Luca Candelori earned an AB in mathematics from Harvard University and a PhD from McGill University before holding postdoctoral positions at Louisiana State University and the University of Hawaii. His research involves the foundations of the theory of modular forms and its applications to number theory and geometry. SHU math department.

On October 19, the SHU Math and Computer Information Systems faculty and students visited Lansing to take part in the Auto-Owners Insurance annual IT/Actuary Day, where the students can learn about careers in those fields and about the company. This is the 4th year in a row we have attended the event.

and Ken Schilling will be on sabbatical in Winter 2019.

Recent graduates **Rebecca Robinson** and **Benjamin Savoie** entered graduate schools. A new slate of officers are running the Student Union for Mathematics. The department held a Family Math Night on October 23, and will hold another on April 2 of next year. We will also host a Math Field Day on March 8, 2019.

Award), and **Ping Zhang** (WMU Distinguished Faculty Scholar Award).

We held our fall Pi Mu Epsilon induction on October 26. William Dunham gave a general talk at 4pm. We held our third annual Undergraduate Mathematics Competition on October 27.

The 6th Lake Michigan Workshop on Combinatorics and Graph Theory will be held at Western Michigan University on April 6–7, 2019. Intended for graduate students and researchers in discrete mathematics, there will be tutorial lectures, short talks, and unscheduled time to allow mathematical collaboration.

Fernando Charro obtained his BS and PhD in mathematics from the Universidad Autonoma de Madrid in Spain, spent four years as a Fulbright scholar and lecturer at the University of Texas at Austin, and then held a three-year position at the Universitat Politecnica de Catalunya. His research interests include the regularity theory of fully nonlinear elliptic equations, the infinity Laplacian, random tug-of-war games, nonlocal elliptic operators, and Monge-Ampère equations.

Tao Huang received his PhD in mathematics from the University of Kentucky, after which he worked as a

research associate at Penn State and as a visiting assistant professor at NYU. His research concerns analysis of complex fluids, geometric analysis, and nonlinear wave equations, with a particular emphasis on the existence and partial regularity of weak solutions and the existence of singular solutions.

In other news regarding our faculty, Professors Tze-Chien Sun and Alexander Korostelev retired at the end of the 2017–18 academic year. Professors Paoliu Chow and Andre Furtado are retiring at the end of the 2018–19 academic year. Hengguang Li and Fatih Celiker have been promoted to full professor. Bruce Corrigan-Salter, Jyotsna Diwadkar, Christopher Leirstein, Richard Pineau, and Shereen Schultz have been promoted to the rank of senior lecturer. Robert Bruner, Leonid Makar-Limanov, Wayne Raskind, and Ualbai Umirbaev will be on leave during Fall 2018. Wayne Raskind and Zhimin Zhang will be on leave during Winter 2019.

The NSF awarded grants to Hengguang Li, for Novel finite element methods for three-dimensional anisotropic singular problems, and **Boris Mordukhovich**, for Advanced research on second-order variational analysis with new applications to optimization, control, and practical modeling. **Gang Yin** received a grant from the US Air Force for Reliable and optimal coordination of networked systems and action-based space trajectory generation/estimation.

Distinguished Professor Boris Mordukhovich has published a new Springer book, "Variational Analysis and Applications." His areas of research include optimization and variational analysis, control theory, nonlinear systems, generalized differentiation, and various applications. Mordukhovich has authored more than 400 publications, including two volumes in Springer's Grundlehren series entitled "Varational Analysis and Generalized Differentiation." He is a Fellow of the AMS and SIAM.

The Department of Mathematics started offering three new undergraduate programs in Fall 2018: a Bachelor of Science in Statistics, a minor in Statistics, and a Bachelor of Arts in Actuarial Mathematics.

Our department is planning a conference on applied stochastic processes and applications during April 2019. Part of the aim is to celebrate the contributions of Professor Paoliu Chow on the occasion of his retirement. Details will be forthcoming in the next issue of the Michigan MAA newsletter.

On April 28, 2018, the Department hosted the 2018 SIAM Great Lakes Section Annual Meeting. There were over 100 registered participants, making this the largest Great Lakes Section meeting in recent years. See <hli.wayne.edu/conferences/ glsiam2018/main.html> for more details.

The executive committee of the WSU Math Society <s.wayne.edu/mbk/wsumathsociety/>, open to both undergraduate and graduate students, is: Mohammad (Mo) Kang, President and Head of Activities & Engagement; Tashawn Huggins, Treasurer and Head of Fundraising Committee; Dalton Cymbal, Secretary and Head of Marketing, Advertising and Logistics; Maria Berishaj, Vice President for Membership & Recruitment and Head of Recruitment Committee; Bandhanpreet Kaur, Outreach and Volunteering Coordinator. Richard Pineau and Tiana Bosley serve as co-faculty advisors.

Mathematical Reviews

Michael Jones <maj@ams.org>

We are happy to welcome **Amanda Francis** to Ann Arbor. Amanda began work as an associate editor over the

summer. She did her graduate work at Brigham Young University, completing her degree in 2012. Before coming to Math Reviews, she worked as an assistant professor at Carroll College in Helena, Montana, where she developed a minor in data science and was the Putnam Exam coach.

Interested in working for Math Reviews? We will have openings for Associate Editors to begin work in 2019. The job listings will be posted at MathJobs.org.



[X,[Y,Z]]+[Y,[Z,X]]+[Z,[X,Y]]=0 Western Michigan University



The Department of Mathematics at Western Michigan University consists of 36 full-time faculty members with specialties in many areas of mathematics and mathematics education, with about 34 graduate teaching assistants, research assistants and doctoral associates. Western Michigan University is located in beautiful Southwestern Michigan, midway between Chicago and Detroit, near Lake Michigan.

<u>Degree Programs</u> The Department offers a variety of graduate programs tailored to meet the wants and needs of our graduate students. We offer Ph.D.s in Mathematics and Mathematics Education; Master's degrees in Mathematics, Applied and Computational Mathematics and Mathematics Education. Graduate students receive individualized attention and encouragement from professors committed to maintaining the highest standards in research and teaching.

Financial Assistance The Department offers several forms of financial assistance. Stipends range from \$12,748-\$15,271. Additional summer support may be available. Currently all supported doctoral students and master's students receive tuition waivers. Applications are due by February 15, 2019. Late applications are accepted as long as openings remain.

All application materials are available on our web pages:

www.wmich.edu/math

For additional information, please contact:

Graduate Programs Administrative Assistant Department of Mathematics Western Michigan University 1903 W. Michigan Ave. Kalamazoo, MI 49008-5248

Phone:	(269) 387-4512
Fax:	(269) 387-4530
E-mail:	math-info@wmich.edu
Web site:	www.wmich.edu/math

Western Michigan University is an Equal Opportunity/Affirmative Action Institution.

2018 Award for Distinguished College or University Teaching of Mathematics Presented to Angela Kubena

Christine Phelps (Central Michigan U) <phelp1cm@cmich.edu>

(2018 Distinguished Teaching Award Committee Chair)

The Michigan Section of the Mathematical Association of America is pleased to present the 2018 Award for Distinguished College or University Teaching of Mathematics to **Angela Kubena** of the University of Michigan, Ann Arbor. Angela is receiving this award for her excellent teaching at the University of Michigan, her work as Director of the Department of Mathematics' Introductory Program, and her work on the Department of Mathematics' new instructor training program.

Angela has 13 years of experience teaching the mathematical sciences. She is a teacher who demonstrates how we should teach for our students to learn. Her classes are active, energetic spaces where she is rarely the focal point of the room; students are themselves doing mathematics, as they need to do to learn it. This is reflected in her teaching evaluations, where her numbers are in the top half or quarter of similarly sized courses in her college. She earns these high teaching evaluations in spite of the high workload of the mathematics courses and while also resisting grade inflation. Her students uniformly praise her teaching, speaking of her caring, energy, and ability to help them understand difficult material. Angela is a wonderful teacher

of mathematics students.

Angela is also an integral part of a program that oversees the training and mentoring of the instructors in the University of Michigan Introductory Program, including over 50 new instructors per year. The impact of this role is difficult to overstate: these courses enroll approximately 4,500 students each year. The University of Michigan Calculus program is nationally recognized for its effectiveness and Angela is one of its directors. Instructors who work with Angela speak highly of her work, citing her determination and effectiveness at creating a course in which students truly learn. Her colleagues in this program also speak of how she creates a strong classroom environment where students can work toward educational and mathematical excellence.

Finally, Angela is a teacher of teachers, working on a team that manages the new-instructor training program in the Department of Mathematics at the University of Michigan. This program is nationally recognized. The instructors who have taught under Angela's coordination routinely speak of her as a mentor who has made them better teachers and commend her unflappable and compassionate work with them. New instructors who work with Angela praise her helpful, challenging, and thoughtful feedback.

It is therefore with great pride and pleasure that the Michigan Section of the Mathematical Association of America presents the 2018 Distinguished University Teaching of Mathematics Award to Angela Kubena.

2019 Distinguished Teaching Award Nominations Due December 14, 2018

David Murphy (Hillsdale C) <dmurphy@hillsdale.edu> (2019 Distinguished Teaching Award Committee Chair)

Nominations for the 2019 award are now being accepted and must be received by December 14, 2018, to be considered. The Distinguished Teaching Award Committee strongly urges departments or individuals to nominate deserving faculty for this award. We recognize that there are many outstanding teachers in the section, but we can consider only those who are nominated.

The committee particularly welcomes nominations of individuals from groups (or types of institutions) that

have historically been under-represented in mathematics or in the list of previous recipients of the award. Past recipients may be found at <sections.maa.org/ michigan/history.html#award>.

The person selected by the committee will be presented with the award at the 2019 Annual Meeting of the Michigan Section and will also, upon receipt of additional supporting material, become the Michigan Section nominee for the national MAA Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics.

Anyone may make a nomination (of someone else: selfnomination is not permitted), but nominations from chairs or MAA liaisons in departments of mathematical sciences are especially solicited.

The nomination form is available as a PDF or Microsoft Word file at <sections.maa.org/ michigan/awards.html>. Send an electronic copy of the completed form to David Murphy at <dmurphy@hillsdale.edu>. Please use "Michigan DTA Nomination" in the subject line.

2019 Distinguished Service Award Nominations Due December 14, 2018

Laura McLeman (UM-Flint) <laurmcl@umflint.edu> (Distinguished Service Award Committee Chair)

Nominations are being solicited for the Michigan Section's Distinguished Service Award (DSA). The award Email is preferred, but you may also send it by mail to: David Murphy Department of Mathematics Hillsdale College 33 E. College St. Hillsdale, MI 49242.

committee (listed on page ??) will accept nominations until January 31, 2019. Nominations should include the nominee's service in his/her home department as well as service to the section, and any service performed for national mathematics organizations or for the promotion of mathematics in a local community. Please send nominations to Laura McLeman <laurmcl@umflint.edu>

Other Award Nominations

• The deadline for submitting nominations for the Deborah and Franklin Tepper Haimo Award is March 1. More information about the award and the nomination process can be found at

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<www.maa.org/programs-and-communities/member-communities/maa-awards/
teaching-awards/haimo-award-distinguished-teaching>
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• The deadline for submitting nominations for the Henry L. Alder Award is October 1. More information about the award and the nomination process can be found at

• Each Section is encouraged to nomination one person for the Meritorious Service award every five years. A listing of the sections eligible to do so next year (and in subsequent years) is provided at

If your section is eligible to provide such a nomination for next year, please note that you should submit your nomination by October 1.

Nominations for Section Officers

Laura McLeman (UM-Flint) <lauramcl@umflint.edu>

The section is always in need of individuals to contribute to the work of the section. As such, this spring at the 2018 Annual Meeting of the Michigan Section-MAA at the University of Detroit-Mercy, the section will elect several officers. The specific roles that we need filled include Four-Year-College Vice Chair, Two-Year-College Vice Chair, and Secretary-Treasurer.

If elected in a particular role, you will also be a voting member of the Executive Committee of the Section.

Filling these roles is vital to the running of the section, so if you are interested in volunteering your time (or know someone who is) please contact Laura McLeman <lauramcl@umflint.edu>. If you have any questions about what any one of the above roles entails, please don't hesitate to ask. Thanks!

Meetings

Pictures from the Tri-Section Meeting



Michael Starbird (UT Austin) discusses angle trisection at the Tri-Section Meeting. (Photo credit: Jennifer Quinn)



Archimedian Expansions, by David A. Reimann (Albion C). (Photo credit: Victor Piercey)



Steve Butler (Iowa State U) introduces the mathematics of juggling. (Photo credit: Victor Piercey)



Things get knotty with Allison Henrich (Seattle U). (Photo credit: Victor Piercey)



Students trying out some rope tricks during Henrich's talk. (Photo credit: Nancy Colwell)



Students participate in the game show. (Photo credit: Nancy Colwell)



Banners present the three sections and their years of founding. (Photo credit: Victor Piercey)

MichMATYC 2018 Meeting

Natascha Rivet (Delta C) <njrivet@delta.edu>

Over 100 mathematics educators from around the state gathered at Kalamazoo Valley Community College on Saturday, October 13, 2018 for the annual MichMATYC conference. This year's theme, "Every Student Counts: Opportunities for Student Engagement," was wonderfully captured by the keynote speaker, **Steven Kahn**, the director of Wayne State University's Center for Excellence and Equity in Mathematics. Following the keynote address were several time slots for the 27 breakout sessions which featured a variety of topics such as teaching incarcerated students, STEM in an urban environment, projects for statistics classes, integrating international and intercultural issues in the classroom, NSF national study data on calculus classes in community colleges, and using Desmos to engage students.

The group gathered together over lunch for the business meeting and many announcements, including the MiTEAM cohort 1 and 2 members and the Student Math League awards. Lansing Community College's **Jack Rotman** was awarded the Teaching Excellence Award. The day wrapped up with a thank you to the host institution, a thank you to the many vendors on site for their sponsorship, and door prize drawings for the participants.

Plans are already underway for next fall when Henry Ford Community College will host MichMATYC 2019 on October 11–12 of next year.

MAA Upper Peninsula Regional Conference

Allan Struthers (Michigan Tech U) <struther@mtu.edu>

Michigan Tech hosted the Michigan Section MAA Upper Peninsula Regional Conference on October 5th and 6th with attendees from throughout the upper peninsula and northern lower peninsula. The meeting opened with the Kliakhandler lecture on "Random Functions, Random Odes, and Chebfun" by Nick Trefethen, Professor of Numerical Analysis (Oxford University) and Global Distinguished Professor (NYU). More than 100 were in attendance.

The other two invited addresses were "Wolves, Orbits, and the Ergodic Theorem" by Rob Kipka (LSSU), and "A Novel Method to Factor Cubics: the Ad-Method" by Daniel Rowe (NMU). The speakers also brought a number of undergraduate students to present on their undergraduate research projects. Our Michigan Section MAA Chair, Victor Piercey, spoke about the role of the Michigan MAA. A number of graduate students presented, including Ray Huang, who discussed the project "Estimate Mixture Gas Concentration in Real Time with Deep Neutral Network" he worked on over the summer at the IMA "Math to Industry Bootcamp."



Michigan Mathematicians Gather at the MichMATYC 2018 Meeting



Nick Tefethen Opens the MAA Upper Peninsula Regional Conference

Michigan Section Dues Your voluntary dues contribution will help Enclosed is a check for: \$15 regular dues \$30 sustaining membership \$40 small institution dues \$70 large institution dues Name Institution Mailing address Email address Make checks payable to: Michigan Section–MAA, and mail them to: Mark Bollman Secretary-Treasurer, Michigan Section–MAA

Dept. of Mathematics and Computer Science Albion College, Albion, MI 49224-5013.

support the activities of the Michigan section, such as the Annual Meeting and the Newsletter. Dues may be submitted online via PayPal (log in to your account at paypal.com and specify MichiganSectionDues@gmail.com as the address of the recipient), or you may print and mail this form and a check to the address given below.

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Spring 2018 Mathematical Contest News

2018 Michigan All-Stars ARML Results

Ruth Favro (Lawrence Tech U) <favro@ltu.edu>

The 2018 American Regions Math League (ARML) competition took place on June 2 on the campuses of the Universities of Iowa, Penn State, Georgia, and Nevada-Las Vegas. A total of 138 teams of up to 15 students each represented various regions of the United States and Canada. International teams participated in the International Regions Mathematics League (IRML). This year the Michigan All-Stars took 32 students: two full teams, both in the A division, and two students who competed on an alternate team with alternate students from other states. Our students came from 12 different cities from around Michigan.

The Michigan A1 Reals placed 8th nationally out of a field of 80 teams in the A division. They were 2nd at the Iowa site in the A division. Qualifying for national ranking in the individual round with 8 out of 10 points was **Freddie Zhao** of Troy High School. Next highest with 7 points were **Daniel Tian** and **Jeffrey Zhang** of Northville High School. Team co-captains were **Ajay Arora** of Novi High School, and **Chittesh Thavamani** of Troy High School.

The Michigan A2 Naturals placed 46th in the A division, and 11th at Iowa. The individual round top scorer, with 7 points, was **Tim Wu** of Northville High School. Team co-captains were **Derek Zhu** of Ann Arbor Huron High School and Shivani Konduru of Troy High School.

The contest consists of four parts: team problems, 20 minutes for 10 problems; power problems, one hour for a sequence of related problems requiring proof; individual problems, 10 problems in 10 minutes for each group of two; and the relay round, short problems requiring a number to be passed back to the next team member. Groups of three get six minutes to complete each of two relays. A tiebreaker round is held for ties for the top score in the individual round. Complete information can be found at <www.arml.com>.

Team coaches were **Dave Friday** (Macomb CC), **Cap Khoury** (Everi Games), **Ruth Favro** and **Na Yu** (LTU), and **Mark Bollman** (Albion C). Additional help came from guest coaches **Peter Collins** (Ann Arbor Huron HS), **Yongmei Jin** (Michigan Tech), and **Tasha Betterly-Byrd** (Quicken Loans), along with chaperones **Susie Khoury, Karuna Arora, Sreeni Bajji, Shawn Zhang**, and **Junxiong (Ben) Ye**.

The Michigan All-Star Project is an activity of the MAA-Michigan Section. We recruit from the top 100+ winners of the Michigan Math Prize Competition. Thanks to our supporters: the alumni/ae, parents, and coaches of the All-Stars, and a grant from the George S. and Helen G. Deffenbaugh Foundation, with in-kind support from the coaches' institutions.

The 2018 American Mathematics Competitions Results

David Friday <fridayd@macomb.edu>

The American Mathematics Competition 10 (AMC 10) and the American Mathematics Competition 12 (AMC 12) are 25-question, 75-minute competitions designed to challenge talented high school students outside of their typical classroom curriculum. The AMC 10 is geared toward students at grade 10 or below, and the AMC 12 is geared toward all high school students.

In the 2017–2018 academic year, a total of 41,145 students at 1,774 schools worldwide took part in the AMC 10 A and 33,226 students at 1,720 schools worldwide took part in the AMC 12 A. Additionally, 32,081 students at 1,659 schools worldwide took part in the AMC 10 B, and 27,657 students at 1,777 schools worldwide took part in the AMC 12 B.

In the state of Michigan, three students earned a perfect score on one of these competitions. **Reagan Choi**, an 8th grader from Boulan Park MS (Troy) and **Alex Xu**, a 9th grader from Troy HS earned perfect scores on the AMC 10 A. **Freddie Zhao**, an 11th grader from Troy HS earned a perfect score on the AMC 12 A as well as the AMC 12 B.

Additionally, three students from the state of Michigan earned Honorable Mentions at the 2018 USA Junior Math Olympiad: **Steven Raphael**, a 10th grader from The Roeper School (Bloomfield Hills), **Daniel Tian**, a 9th grader from Northville HS, and **Daniel Xu**, a 10th grader from Cranbrook Kingswood Upper School (Bloomfield Hills).

Plenary Speakers

Please be reminded that your section can invite various members of the MAA leadership to visit your section meetings and serve as plenary speakers. See, for example, the following:

Section Visitors Program

<www.maa.org/community/maa-sections/section-visitors-program>

Editor Lectures Program

<www.maa.org/community/maa-sections/programs-and-services/

editor-lectures-program>

Note also the potential for each section to invite a Pólya Lecturer to a section meeting once every five years. For more information, see

<www.maa.org/community/maa-sections/programs-and-services/polya-lectureship>

Congratulations to Jerrold Grossman on his Retirement

Clark Wells (GVSU) <wellsc@gvsu.edu> and Beth Wolf (UM-AA) <bethwolf@umich.edu>

On behalf of the Michigan Section of the MAA, the editors wish to offer our congratulations to **Jerrold Grossman**. At the end of the 2017–18 academic year, Jerry retired from Oakland University after 44 years on the faculty of the Department of Mathematics and Statistics.



Jerry enjoyed teaching courses in mathematics as well as in statistics and computer science, and was recognized both within his department and university-wide for his excellence in teaching. He has made numerous contributions to his main research area of discrete mathematics, as well as in several other areas. Jerry also created and maintains the web site for The Erdős Number Project <www.oakland.edu/enp/>, and has consulted for Mathematical Reviews, Ford Motor Company, and other organizations.

Throughout his career, Jerry has been dedicated to serving the mathematics community. He has been a member of the committee overseeing MAA's national high school competitions, and a member of the Educational Materials Committee of the National Council of Teachers of Mathematics. He has been particularly invaluable to our Michigan Section of the MAA, serving as a member of the Michigan Mathematics Prize Competition Exam Committee and the Michigan MAA Teaching Excellence Award Committee, as Director of the High School Visiting Lecture Program, and as Section Governor. Jerry was awarded our section's Distinguished Service Award in 2005.

In addition, Jerry served as the editor of this *Newsletter* from 1996 to 2001. Even after his tenure, he continues to be an invaluable resource to this publication. Former editor **Katie Ballentine** (Math. Sciences Publishers) writes that "his eagle eye spotted many typos, formatting problems, and factual errors that would have otherwise made it through, and more than once he went out of his way to offer extra help, even going so far as to drive to my house to help me assemble the mailing when I was running short on time."

Another former editor, **Norman Richert** (Math. Reviews), adds: "In the crush of time it was easy to look the other way about various problems, but Jerry always kept me honest. His enthusiasm for giving feedback was unflagging, even when I delivered copy to him very late in the game."

The current editors agree that Jerry has been an enormous help. Our first draft of our first issue was riddled with typos; Jerry helped us turn it into something publishable despite the fact that we were also running behind schedule. *Thank you Jerry!*

We note that Jerry, a 53-year MAA member, was also recently featured in the Meet A Member feature of *MAA Focus*. You can read the interview at <bit.ly/JerryGrossman>.

Michigan Section—Mathematical Association of America

Committees and Appointments

Executive Committee

Chair	('19) Victor Piercey (Ferris State U) <piercev1@ferris.edu> • 231-591-2823</piercev1@ferris.edu>
Vice Chair	('19) Nancy Colwell (SVSU) <nccolwel@svsu.edu> • 989-964-4353</nccolwel@svsu.edu>
Vice Chair	('19) Natascha Rivet (Delta C) <nirivet@delta.edu> • 989-686-9128</nirivet@delta.edu>
SecTreas.	('19) Mark Bollman (Albion C) <mbollman@albion.edu> • 517-629-0261</mbollman@albion.edu>
Past Chair	('19) Laura McLeman (UM-Flint) laura McLeman (UM-Flint) laura McLeman (UM-Flint) laura McLeman (UM-Flint)
Sec. Rep.	('19) Steve Schlicker (GVSU) <schlicks@gvsu.edu> • 616-331-2305</schlicks@gvsu.edu>

Michigan Mathematics Prize Competition (MMPC)

Co-Director ('20) Andrew Poe (NMU)
<apoe@nmu.edu> • 906 227-1598</apoe@nmu.edu>
Co-Director ('20) Daniel R. Rowe (NMU)
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MMPC Exam Committee

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Calendar of Events

Michigan Section-MAA Annual Meeting

2019: University of Detroit Mercy, April 5–6 <sections.maa.org/michigan/meetings/ 2019_Spring_annual_meeting.html>.

MAA MathFest

2019: Cincinnati, OH, July 31–August 3

2020: Philadelphia, PA, July 29–August 1

2021: Sacramento, CA, August 4-7

2022: Washington, DC, August 3-6

2023: Tampa, FL, August 2–5

MAA-AMS Joint Mathematics Meetings¹

2019: Baltimore, MD, January 16–19 <jointmathematicsmeetings.org/jmm> 2020: Denver, CO, January 15–18 2021: Washington, DC, January 6–9

AMS Annual Meeting¹

2022: Seattle, WA, January 5–8 2023: Boston, MA, January 4–7

AMATYC Annual Conference

2019: Milwaukee, WI, November 14-17 <amatyc.site-ym.com/page/2019ConfHome>

NCTM Annual Meeting & Exposition

- 2019: San Diego, CA, April 3–6
- <www.nctm.org/annual/>
- 2020: (NCTM Annual Centennial) Chicago, IL, April 1–4
- 2020: St. Louis, MO, October 21-24
- 2021: Atlanta, GA, September 22–25

¹The agreement with the AMS to jointly run the Joint Mathematics Meetings will end following the JMM in 2021. Thus, beginning in 2022, this meeting is listed as the AMS Annual Meeting.