Michigan Section
Mathematical Association of America
NEWSLETTER

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Chair's Report

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

Happy Winter, Michigan. I hope you have been able to enjoy our beautiful snowy landscape, especially as the temperatures swing 30 degrees in either direction, seemingly daily. And while the groundhog saw his shadow — meaning 6 more weeks of winter — the start of spring *is* nearing, with its blooms and buds and the 2018 section meeting!

That's right! The 2018 section meeting is just around the corner. First, some history. In 1924, the first regular meeting of our section was held; 57 people were present and 6 papers were presented. In contrast, last year's meeting at Ferris State University saw well over 200 people attend, with 34 talks given.

And this year's annual meeting is shaping up to be bigger than ever! This year is our 75th Anniversary Tri-Section Meeting, at which members from our section, along with those from the state sections of Indiana and Illinois, will be meeting in Valparaiso University, IN on March 23–24, 2018.

More information about the meeting is discussed in Victor Piercey's report on this page and can be found on the conference website, <sections.maa.org/indiana/meetings/Current/announcement.html>.

Submissions are now being accepted, and I hope that Michigan will be well represented at the meeting.

For nearly 100 years now, it has been the goal of our section to connect mathematicians from around the state of Michigan. I encourage you to continue on in this tradition.

As you read through this newsletter, please think about ways you can participate in and represent the section. Be it through volunteering for an officer role, grading the Michigan Mathematics Prize Competition next year, or making a monetary contribution, all of your efforts and time are invaluable to the section.

Additionally, you can always represent our section at other venues, such as MathFest on August 1–

4, 2018 in Denver, CO or MI-AMTE's annual conference, Conversations Among Colleagues, taking place on March 17, 2018 at Eastern Michigan University.

If you are interested, our website <sections.maa.org/michigan/history.html> details the history of the section and our numerous section activities, past and present.

In the meantime, thank you for reading through this newsletter. I hope that it provides you with useful information that supports the work you do. I look forward to meeting and talking with each of you in Valparaiso soon.

Four-Year Vice Chair's Report

Preparations are nearing completion for the Tri-Section meeting.

The meeting will take place from March 23 to March 24 and will involve the Illinois, Indiana, and Michigan sections.

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

Our plenary speakers are **Steven Butler** (Iowa State U), **Judy Holdener** (Kenyon C), **Allison Henrich** (Seattle U), **Michael Starbird** (U Texas-Austin), **Michael A. Jones** (Math. Reviews), and **Jennifer Quinn** (U Washington-Tacoma).

In addition to presenting a plenary talk, Michael Starbird will run a workshop on inquiry-based learning. There will also be several events for Illinois and Indiana NExT participants that will be of interest to those interested in revitalizing Michigan NExT.

We also hope to have several great contributed talks from Michigan mathematicians. The section meetings are great places to share your work with your neighbors! If you have students conducting research, talk with them about submitting an abstract for the Michigan Undergraduate Mathematics Conference, which will take place alongside the Tri-Section meeting.

Registration is open, and you can register by visiting <bit.ly/MAA-IL-IN-MI>. You can submit a talk by visiting <https://purdue.ca1.qualtrics.com/jfe/form/SV_3gbT92aHAzmboWh>.

I look forward to seeing you at Valparaiso!

Department of Mathematics and Computer Science

Today's mathematics is nothing like that of our parents. If you look up any report on the "best" majors in college, not only is mathematics on the list, it is also critical to almost all of the other top 10 careers. The U.S. Bureau of Labor Statistics predicts that the employment growth rate for mathematicians will be 23 percent in the next decade, much faster than the average for all occupations. LTU's Bachelor of Science in Mathematical Sciences is designed to help you master both mathematical theories and their practical applications. Our motivated faculty and low student-faculty ratio provide a customized education and offer you a competitive edge in any career you choose.

Use of Mathematical and Computational Modeling has lead to critical discoveries in Medicine, especially in the areas of Cancer, Infectious Diseases, and Diabetes. What is even more exciting is the increase in demand for highly trained students with knowledge of mathematics, modeling and computation. LTU is preparing its students for exciting and challenging careers after graduation!

Just recently, the Brookings Institution ranked Lawrence Technological University fifth among U.S. colleges and universities for boosting graduates' earning potential, and PayScale reports that salaries of LTU bachelor's graduates are among the top 7 percent of all U.S. universities.

What's special about Lawrence Tech University's Math and Computer Science Program?

1. Our students learn hands on in the classroom. Besides Problem Based Learning (PBL) and Active Collaborative Learning (ACL), we've developed a course-based research experience (CRE) program. The Howard Hughes Medical Institute (HHMI) recently funded this CRE program and now our students are exposed to authentic research projects at the stage as early as Calculus.

2. LTU has continued its excellent tradition of participating in the Mathematical Contest in Modeling (MCM) & Putnam exams with highly successful results.

   Mohit Bansil, Aaron Craig and Nicholas Paul won "Honorable Mention" award and also presented their result regarding temperature in a bathtub at the MAA Michigan session meeting in 2016.

3. Our Math program is teaming up with the Cornerstone Educational Group and their wonderful elementary and high schools in Detroit to build a successful pathway between High School and the University.

   LTU students will have the chance to develop & teach innovative math curriculum and become mentors to these outstanding students.

4. We are creating a new program in Actuarial Sciences where students can specialize in preparing for the Actuarial Exams while finishing your B.S. degree.

   Students will complete a B.S. degree in Mathematical Sciences with a minor in Economics. Courses will be specialized to prepare for not only the first two exams but more advanced ones as well, creating a highly marketable workforce after graduation.

Section Representative's Report

I hope everyone had a chance to participate in the Joint Mathematics Meetings in San Diego. The sessions were outstanding, with my favorite being the one by **Jo Boaler** from Stanford who gave the Project NExT Lecture on Teaching and Learning.

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(GVSU)
<schlicks@gvsu.edu>

Jo shared many interesting things, one of them about new science studies on the brain. As Jo told us, when a person successfully solves a problem with no struggle, nothing much happens in the brain. However, when a person makes a mistake, a synapse fires. Then, when the person realizes that they have made a mistake, another synapse fires. I thought this was fascinating and is something I will share with my students as I discuss with them advantages of productive failure.

There were a few items that might be of interest from the meeting of the Congress in San Diego. You may be aware that if your department has a departmental MAA membership (only 10% of departments do), then memberships for every single one of your students, undergraduate and graduate, is included. I repeat, your department will have an unlimited number of student memberships to give to your students. This is an incredible deal, and you can find information about memberships at the MAA website.

In the last newsletter I reported that the MAA had executed a partnership agreement with Taylor & Francis for MAA journals. In September, the MAA concluded an agreement with AMS to sell its books to the AMS, and entered into a 10-year license of the MAA Press trademark to continue to develop new titles. MAA members will continue to receive discounts on MAA books, and will now also receive discounts on AMS titles.

These two agreements promise to help the MAA control costs while allowing the MAA to maintain control over what is published under the MAA brand.

[Editor's Note: Because the AMS publishes MAA books now, anyone with MathSciNet (Mathematical Reviews) reviewer points can use them to get MAA books.]

The Association has drafted core values statements, and the Congress had a chance to review and make comments on the draft. You should see something about this in the future. The Congress also voted to elect the Officer-at-large of the Congress (**Jennifer Quinn**), the Vice Chair of the Congress (**Judith Covington**), the Recorder of the Congress (**Melissa Erdmann**), additional Members of the (Congress) Elections Committee (**Mariah Birgen**, **Pam Crawford**, **Violeta Vasilevska**), and voted on recommendations to the Board for members of the MAA Nominating Committee (the Board will appoint two members from the four names recommended by the Congress).

At the section level, we are in the process of revising our bylaws. A committee (**Gavin LaRose**, **Laura McLeman**, **Mark Bollman**, and **Steven Schlicker**) made some changes and called for comments and suggestions from the section membership. The proposed bylaws were submitted to the Association and we are now in the process of considering their feedback.

We recently did the grading of the Michigan Mathematics Prize Competition Part II problems on Saturday, January 20, 2018 at Albion College. This is a fun event at which we get to see the work of some outstanding high school students, visit with colleagues, and get a free lunch. This event occurs every year, and there can never be too many graders. If you haven't done so before (or if you haven't done so in a while), I encourage you to consider taking part in this activity of the section.

This year's spring section meeting will be held in conjunction with the Illinois and Indiana sections March 23–24, 2018 at Valparaiso University in Valparaiso, IN, and I hope to see you there. If this Tri-Section meeting is anything like the last one (in 1992), it should be a great conference.

Finally, MathFest will be held in Denver this summer (August 1–4). Denver is a beautiful city, and the program promises to be excellent. You should definitely consider participating if you can.

Two-Year Vice Chair's Report

Unless you are teaching at a two-year college, you may be unaware of the professional development and networking opportunities available to you through the Michigan Mathematics Association of Two-Year Colleges (MichMATYC). Each time I have attended a con-

Natascha Rivet
(Delta C)
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ference, either at the state or national level, I have walked away with ideas and techniques that I could immediately apply in the classroom. Pedagogical techniques like flipped classrooms, general education outcomes integrated in mathematics courses, and assessment, placement, and retention are just some of the many topics that I have been introduced to at Mich-MATYC and American Mathematical Association of Two-Year Colleges (AMATYC) conferences. This year, inquiry-based learning (IBL) was the topic at the annual fall conference; IBL is also a feature of the MAA Tri-Section meeting taking place in March.

The Michigan Section of the MAA is unique in that it collaborates and coordinates its annual meeting with MichMATYC. There are some great professional development and networking opportunities available in Michigan and nearby areas. Maybe you would be interested in attending or perhaps you have ideas to present at one

of the upcoming conferences. Kalamazoo Valley Community College will be hosting the 2018 MichMATYC conference October 12 and 13, 2018. The theme of the conference is "Every Student Counts: Opportunities for Student Engagement." Or, maybe you could consider joining the approximately 1500 other instructors who attend an AMATYC national conference. In 2019, the 45th annual conference will be nearby, in Milwaukee, on November 14–17, 2019. For more information visit <amatyc.org/?page=Conferences>. Conferences and meetings are wonderful for networking with instructors who want to develop their craft of teaching mathematics.

Another opportunity, available for those who will be in their first three years of teaching full- or part-time at a community college during the 2018–19 academic year, is the MichMATYC MiTEAM. Please consider applying for Cohort 2 of the MichMATYC MiTEAM, which will meet for the first time at the 2018 MichMATYC Fall Conference. More information can be found at <bit.ly/MiTeam>.

There are so many ways instructors of mathematics at all levels can collaborate and learn from each other. Two-year college faculty members in Michigan are lucky to partner with the MAA as we do, and our four-year counterparts may find some inspiring and innovative ideas by attending some of the professional development experiences offered by MichMATYC and AMATYC. We owe it to ourselves and our students to take advantage of these opportunities.

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.

Secretary-Treasurer's Report

I would like to thank everyone who has sent in a voluntary section dues payment for 2017–2018. At this time there are 71 dues-paying members, of whom 44 are sustaining members, who have paid dues of $30 or more. The

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list of sustaining members can be found on the current page. In these challenging financial times, your willingness to support the activities of the section is especially appreciated. I would particularly like to thank William Jackson for his continued support of the Ron Mosier Award as a supplement to his voluntary dues. His contribution will guarantee that the section can continue to recognize the outstanding student talk at the Annual Meeting.

In addition, we now have 21 institutional members. This list can be found on this page. If your school is not listed, you might want to remind your department chair to attend to this matter. Last year at this time there were 86 dues-paying individual members, including 52 sustaining members, and 22 institutional members, so all three categories of membership are down slightly. If your department has not yet sent in a dues payment and wishes to do so, the membership form can be found on page 19.

The Michigan Section's current bank balance is $8532.43, which is as high as it has been in some time as we reap the savings of moving this newsletter online. We continue to have a good balance of income and expenses, and the section remains in sound financial shape. This summer, with three years of experience with the online newsletter format complete, the Executive Committee will begin exploring new opportunities that these funds might facilitate. Your suggestions are welcome. In the immediate future, we expect that the financial pressure which occasionally challenges the spring section meeting will be less of a concern and that the Tri-Section meeting this spring will not prove too taxing on our finances.

If you have any questions regarding the section's finances, please feel free to contact me.

Institutional Members 2017–18

- Albion C
- Central Michigan U
- Davenport U
- Delta C
- Eastern Michigan U
- Henry Ford C
- Hope C
- Kalamazoo C
- Lawrence Tech. U
- Macomb CC
- Math. Reviews
- Monroe County CC
- Muskegon CC
- Oakland U
- Olivet C
- Saginaw Valley State U
- Schoolcraft C
- Siena Heights U
- Spring Arbor U
- UM-Dearborn

Individual Sustaining Members, 2017–18

- Edward Aboufadel
- Hasan Al-Halees
- Steven A Althoen
- Hyman Bass
- David Basterfield
- Larry Beauchamp
- Mary L. Bragg
- Robert Bruner
- Joseph Buckley
- Tim Carroll
- Nancy Colwell
- James Dudziak
- John M. Dwyer
- Paul Eenigenburg
- Ruth Favro
- Richard Fleming
- Dan Frohardt
- R. Kent Gilbert
- Sidney Graham
- Jerrold Grossman
- Jim Ham
- Krista Hansen
- Konrad Heuvers
- Margret Hoft
- William Jackson
- Michael A. Jones
- William Keith
- John D. Kiltinen
- Frances Lichtman
- Jack M. Miller
- Hugh Montgomery
- Robert Myers
- Gene M. Ortner
- Walter Parry
- B.David Redman, Jr.
- Norman Richert
- Larry Smyrski
- Gerard Venema
- Sylvia Verdonk
- Bette Warren
- Clark Wells
- Elizabeth S. Wolf
- Matt Wyneken
- Robert Xeras

75th Anniversary Tri-Section Meeting
the Illinois, Indiana, and Michigan sections of the MAA

March 23-24, 2018 @ Valparaiso University

- six invited plenary addresses
- student problem-solving competition
- mathematical art exhibit
- Project NExT activities
- IBL workshop with Mike Starbird
- contributed paper sessions

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20th Annual Michigan Undergraduate Mathematics Conference

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

The 20th Annual Michigan Undergraduate Mathematics Conference (MUMC) will be held March 23–34 in conjunction with the Tri-Section meeting at Valparaiso University in Indiana. This year's conference will feature a variety of presentations by students. Help us spread the word regarding the conference — encourage your students to attend and give presentations. Fifteen-minute talks may focus on original research or expository material that most students do not encounter in the undergraduate curriculum. For students who are earlier in their degree programs and aren't yet ready to present, this is a great opportunity to learn firsthand about undergraduate research opportunities in mathematics, and to meet fellow students and other mathematicians from the entire tri-state area. For more detailed information about the Tri-Section meeting please see the Four-Year Vice Chair's Report on page 2. We look forward to seeing you there!

MMPC Director's Report

Andy Poe (Northern Michigan U) <apoe@nmu.edu>, MMPC Director

The 61st Annual Michigan Mathematics Prize Competition began with the Part I examination given on Tuesday, October 10, 2017 to 5025 students from 131 schools. These students answered 40 challenging multiple-choice questions covering the entire spectrum of high school mathematics. Of these, 1238 students were invited to take the Part II exam on Wednesday, December 6, 2017. The Part II exam consisted of 5 very challenging problems, and students were required to show all their work and prove their answers correct. The Part II problems can be found on the next page.

This year's Examination Committee consisted of **Michael "Cap" Khoury** (Lawrence Tech. U), Chair, **David Friday** (Macomb Community C), **Dorin Dumitrascu** (Adrian C), and **Bingwu Wang** (Eastern Michigan U).
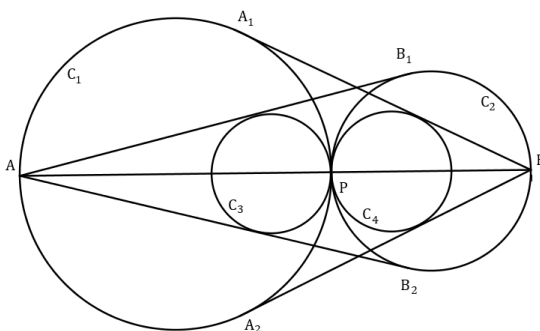
Mark Bollman did a wonderful job, as he always does, of hosting Grading Day at Albion College. The graders from across the state and the backgraders from Northern Michigan University all did a wonderfully efficient job and I greatly appreciate their service.

Because a massive road trip to the upper peninsula is too daunting, the Awards Banquet will be held on Saturday March 10, 2018, also on the campus of Albion College. The students won't be coming to the U.P., so I'm bringing the U.P. south. (The banquet *is* planned to be held in Marquette in 2020!) The keynote address will be given by Assistant Professor **Daniel R. Rowe** from Northern Michigan University, who is absolutely fantastic! The Top 50 competitors will share $20,000 in scholarships ranging from $250 to $2,500, while the 50 honorable mentions will receive a book. This year, that book is *Origami, Eleusis, and the Soma Cube*, by Martin Gardner, incidentally, one of my favorite books when I was a kid. Please look to the fall *Newsletter* for a detailed report of the Awards Banquet and the names of the top competitors. (The winners are kept secret until the Awards Banquet.)

Thanks to the personnel of NMU and Albion for helping to facilitate the competition, Mu Alpha Theta for their financial support, the long-suffering parents and teachers for inspiring mathematical interest, and the long-suffering students themselves, for involving themselves in the fascinating yet not overly popular arena of competitive mathematics.

MMPC Part II Problems

1. Consider a normal 8×8 chessboard, where each square is labelled with either 1 or -1. Let a_k be the product of the numbers in the kth row, and let b_k be the product of the numbers in the kth column. Find, with proof, all possible values of $\sum_{k=1}^{8}(a_k b_k)$.

2. Let $\overline{AB}$ be a line segment with $AB = 1$, and P be a point on $\overline{AB}$ with $AP = x$, for some $0 < x < 1$. Draw circles C_1 and C_2 with $\overline{AP}$, $\overline{PB}$ as diameters, respectively. Let $\overline{AB_1}$, $\overline{AB_2}$ be tangent to C_2 at B_1 and B_2, and let $\overline{BA_1}, \overline{BA_2}$ be tangent to C_1 at A_1 and A_2. Now C_3 is a circle tangent to C_2, $\overline{AB_1}$, and $\overline{AB_2}$; C_4 is a circle tangent to C_1, $\overline{BA_1}$, and $\overline{BA_2}$.

   (a) Express the radius of C_3 as a function of x.
   (b) Prove that C_3 and C_4 are congruent.

3. Suppose that the graphs of $y = (x + a)^2$ and $x = (y + a)^2$ are tangent to one another at a point on the line $y = x$. Find all possible values of a.

4. You may assume without proof or justification that the infinite radical expressions

$$\sqrt{a - \sqrt{a - \sqrt{a - \sqrt{a - \cdots}}}}$$

   and

$$\sqrt{a - \sqrt{a + \sqrt{a - \sqrt{a + \cdots}}}}$$

   represent unique values for $a > 2$.

   (a) Find a real number a such that

$$\sqrt{a - \sqrt{a - \sqrt{a - \sqrt{a - \cdots}}}} = 2017.$$

   (b) Show that

$$\sqrt{2018 - \sqrt{2018 + \sqrt{2018 - \sqrt{2018 + \cdots}}}} = \sqrt{2017 - \sqrt{2017 - \sqrt{2017 - \sqrt{2017 - \cdots}}}}.$$

5. (a) Suppose that m, n are positive integers such that $7n^2 - m^2 > 0$. Prove that, in fact, $7n^2 - m^2 \geq 3$.
   (b) Suppose that m, n are positive integers such that $\frac{m}{n} < \sqrt{7}$. Prove that, in fact, $\frac{m}{n} + \frac{1}{mn} < \sqrt{7}$.

Campus News

Adrian College

Elizabeth Lamprecht <elamprecht@adrian.edu>

Dr. **Dorin Dumitrascu** presented a talk, "Assessment of Flipping the Introductory Statistics Course," at the 2018 Joint Mathematics Meetings held in San Diego. His presentation considered the implementation of the flipped pedagogy in the introductory statistics course offered at Adrian College.

Albion College

Mark Bollman <mbollman@albion.edu>

David Reimann is on sabbatical this semester, working on mathematical art. **Mark Bollman** has returned from his fall sabbatical. The Mathematics and Computer Science Department at Albion encourages people from around the world, and our section colleagues in particular, to show their support for mathematics by wearing plaid on International Plaid Day: April 27, the last Friday of Mathematics Awareness Month.

Alpena Community College

Dan Rothe <rothed@alpenacc.edu>

As we start another semester here at ACC, enrollment is down slightly. Numbers continue to be strong in statistics and finite math courses (those satisfying the Michigan Transfer Agreement). Calc II enrollments are helped by dual enrollment students from Alpena High School. **Meghan Cameron** and **Jim Berles** are continuing their use of online homework for the arithmetic class.

For the first time in several years, we offered both of our math for elementary education courses. While enrollments were low, we expect an increasing trend due to a more open job market for teachers in our area. Dual enrollment math classes offered at Alcona and Rogers City High Schools continue to be successful.

We are in the planning stages for a major renovation project on campus. Our oldest building, Van Lare Hall (1957), will be remodeled and expanded to become the new home of the nursing program. Since Mathland currently resides in this building along with a variety of other classes and programs, we will be moving to a new location. This will be an interesting and exciting process.

We were honored to have former ACC student **Rachel Chroninger** presented with the Karen Sharp Student Math Scholarship at the MichMATYC Fall Conference at Baker College in Muskegon. We are proud of the record of our students.

Sigma Zeta Math/Science Honor Society went on a tour of Carmeuse Lime and Stone's Calcite Quarry in Rogers City on November 3. They learned about the quarrying process and got to spend some time in the testing lab. The Rogers City Calcite Quarry is the world's largest limestone quarry.

The group is currently in the planning stages for the event they run at the Science Olympiad Regional Tournament in March. Spring induction and a spring trip are also being discussed.

Central Michigan University

Ben Salisbury <ben.salisbury@cmich.edu>

The Special Colloquium Series continued in Spring 2018 with a talk from **Sagun Chanillo** (Rutgers U) on March 15, 2018.

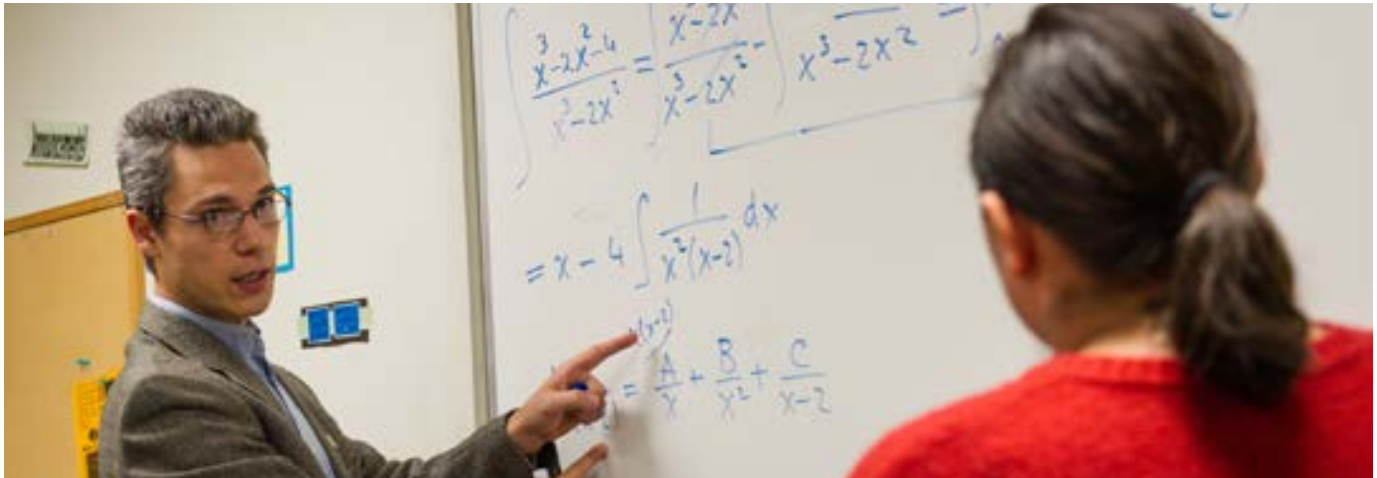### Calvin College

John Ferdinands <ferd@calvin.edu>

Dave Klanderman will be joining the department in Fall 2018 after several years as a Professor at Trinity Christian College in Palos Heights, IL.

Jan Koop, **Mike Stob**, and **Gary Talsma** will retire at the end of the current academic year. Each of them has given outstanding service over many years to the department and college.

On February 22, 2018 **Carol Schumacher** (Kenyon C) gave two presentations at Calvin College: "What I Learned in the Classroom," and "All Tangled Up," a description of the mathematical curves called tangloids.

Eastern Michigan University

Carla Tayeh <ctayeh@emich.edu>

We are hosting a Machine Learning Conference on Saturday, April 7, 2018. Dr. **Ovidiu Calin** is chairing and organizing the conference. More information is available on our department website.

Dr. **Andrew Ross** played a key role in developing our new undergraduate degree in Data Science and Analytics, which is a joint program with Computer Science and Computer Information Systems.

We are hosting the annual Conversations Among Colleagues Conference for the Michigan Association of Mathematics Teacher Educators (MI-AMTE) on March 17, 2018. Drs. **Stephanie Casey** and **Carla Tayeh** are conference co-chairs. Our secondary mathematics teacher preparation program has recently earned national recognition from the National Council of Teachers of Mathematics (NCTM).

We are happy to announce that we have recently received approval from the MAA to start the Eastern Michigan University Student Chapter of the MAA. Student members will get a free MAA membership and access to MAA journals and magazines.

Hope College

Todd Swanson <swansont@hope.edu>

Mark Pearson returned from sabbatical, and **Darin Stephenson** is currently on sabbatical. **Paul Pearson** was promoted to associate professor and received tenure.

Northwestern Michigan College

John Pflughoeft <jpflughoeft@nmc.edu>

Northwestern Michigan College had three retirements this past fall. They are, along with their years of service at NMC: **Jack Berman**, 41 years; **Mark Nelson**, 30 years; and **Mary Burget**, 6 years.

Saginaw Valley State University

Emmanuel Ncheuguim <ekengnin@svsu.edu>

The Department welcomes Dr. **Grace McClurkin** in the rank of Assistant Professor. Grace earned a PhD in Mathematics from the University of Tennessee in August 2017. Her research interests are commutative ring theory, zero-divisor graph variants and generalizations, and active-learning in higher-level undergraduate math education.

Dr. **Arundhati Bagchi Misra** was promoted to the rank of associate professor with tenure. Dr. **Patrick Pan** will be on sabbatical in Winter 2018.

University of Detroit Mercy

Dawn Archey <archeyde@udmercy.edu>

Dawn Archey is the Principal Investigator of a NSF grant awarded to University of Detroit Mercy. The grant will fund 15 young American Operator Algebraists to participate in the Young Mathematicians in C*-Algebras Conference (YMC*A) and its companion conference Young Women in C*-algebras (YWC*A). The conferences will be held at KU Leuven, Leuven, Belgium from August 11, 2018 to August 17, 2018. These conferences are dedicated to promotion of young researchers and graduate students in C*-algebras. Both are conferences organized for and by master/PhD students and postdocs in operator algebras (both von Neumann and C*-algebras, despite the name!) and related areas, with the goal of fostering scientific and social interaction between young researchers.

University of Michigan – Flint

Mehrdad Simkani <simkani@umflint.edu>

Bob Bix retired in July after 40 years at the university. **Cam McLeman** was awarded tenure and promoted to associate professor. **Shu-Yi Tu** was promoted to professor. **Krista Hansen** is on sabbatical for Winter 2018.

The 51st Math Field Day will be held on March 2, 2018. The spring Family Math Night will be held at UMF on March 27, 2018. Two faculty members and six students attended the 2018 Joint Mathematics Meetings.

Wayne State University

Dan Drucker <aa1856@wayne.edu>

We are holding our annual Owen Owens lecture on April 18, 2018, given by **Gregory Margulis** from Yale University. Professor Margulis is a Fields medalist and Wolf Prize winner whose research interests include Lie groups, dynamical systems, number theory, and combinatorics.

As we announced in the Fall newsletter, we are hosting the 2018 SIAM Great Lakes Section Annual Meeting on April 21, 2018. Please see <hli.wayne.edu/conferences/glsiam2018/main.html> for more information.

The Wayne State University Math Corps has received a $100,000 donation from General Motors for the 2017–2018 program year. For more details, see http://www.clas.wayne.edu/Math/2017/12/04/WSU-Math-Corps-Receives-Donation-from-GM-Corporation/News/19376.

Angela Kubena (UM – Ann Arbor) Wins 2018 Distinguished Teaching Award

Christine Phelps-Gregory (Central Michigan U) <phelp1cm@cmich.edu> Distinguished Teaching Award Committee Chair

The Distinguished Teaching Award Committee — **Carl Lee** (Central Michigan U), **Frances Lichtman** (Delta C), **David Murphy** (Hillsdale C), and **Christine Phelps-Gregory** (Central Michigan U) — is pleased to announce that the 2018 recipient of the Award for Distinguished Teaching of College or University Mathematics is **Angela Kubena**. 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. The full citation will appear in the Fall 2018 edition of the Newsletter.

2019 Distinguished Teaching Award Nominations Due December 14, 2018

Christine Phelps-Gregory (Central Michigan U) <phelp1cm@cmich.edu> 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 in the spring at the annual meeting of the Michi-gan Section, and will also, pending submission of additional supporting material and membership in the MAA, become the Michigan Section nominee for the national MAA Deborah and Franklin Tepper Haimo Awards for Distinguished College or University Teaching of Mathematics.

Nomination Instructions Completed nominations must be received by December 14, 2018, to be considered for the 2019 Award. The nomination form is available on the section's website as a Microsoft Word file.

Send an electronic copy of the completed form to David Murphy <dmurphy@hillsdale.edu>; please use "Michigan DTA Nomination" as the subject. Email is preferred, but you may also send it by mail to:
David Murphy
Hillsdale College
33 E. College St.
Hillsdale, MI 49242

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

Eligibility for the Award To be considered for the award, a nominee must:

- Be a college or university teacher who currently teaches a mathematical science at least half-time during the academic year in a public or private college or university (from two-year college teaching through teaching at the PhD level) in Michigan. Those on approved leave (sabbatical or otherwise) during the academic year in which they are nominated qualify if they fulfilled the requirements in the previous year.
- Have at least seven years' experience in teaching the mathematical sciences.
- Have had teaching effectiveness that can be documented.
- Have had influence in their teaching beyond their own institution.
- Foster curiosity and generate excitement about mathematics in their students.

MAA Awards, Prizes, and Lectures

Send Nominations to the MAA Secretary (secretary@maa.org).

- **Mary P. Dolciani Award for distinguished contribution to the mathematical education of K-16 students in the United States or Canada, October 1**

- **Henry Alder Award for Distinguished Teaching by a beginning mathematics faculty member, October 1**

- **John and Annie Selden Prize for research in Mathematics Education** (odd years), **October 1**

- **Daniel Solow Author's Award that recognizes author or authors of undergraduate teaching materials, October 1**

- **Gung and Hu Award for Service to Mathematics, December 1**

- **Haimo Award for Distinguished College or University Teaching, March 1**

- **AMS-MAA-SIAM Morgan Prize for Undergraduate Research, to the AMS Secretary by June 30**

Writing awards and lectures approved by the Board of Directors:

Beckenbach Book Prize	**Robbins Prize**
Chauvenet Prize	**Hedrick Lecturer**
Euler Book Prize	**Leitzel Lecturer**
Hasse Prize	**Pólya Lecturer**

Writing Awards determined by committees:

Allendoerfer *(Mathematics Magazine)*
Halmos-Ford Award *(Monthly)*
Trevor Evans *(Math Horizons)*
Pólya *(College Mathematics Journal)*

- **Meritorious Service Awards, recommendations from Sections, October 1**

MAA
MATHEMATICAL ASSOCIATION OF AMERICA

Committee Chairs as of February 1, 2018

Committee	Chair	Chair's Email
Alder Award	J. Alan Alewine	jaalewine@mckendree.edu
Allendoerfer Award	Keith Mellinger	kmelling@umw.edu
Beckenbach Book Prize	Glen Van Brummelen	gvb@questu.ca
Chauvenet Prize	Susan Marshall	smarshal@monmouth.edu
Dolciani Award	Tina Straley	thstraley@aol.com
Euler Book Prize	Angie Spalsbury	angie@math.ysu.edu
Trevor Evans Award	Jennifer Langdon	jelangd1@wsc.edu
Falconer Lecturer	Ulrica Wilson, AWM	uwilson@moorehouse.edu
Gung and Hu Award	Joanne Peeples	joannep@epcc.edu
Haimo Award	Bruce Yoshiwara	byoshiwara@hotmail.com
Halmos-Ford Award	Tanya Leise	tleise@amherst.edu
Hedrick Lecturer	Matt Delong	mtdelong@taylor.edu
Leitzel Lecturer	Angie Hodge	Ang.hodge@gmail.edu
Meritorious Service	Recommended by MAA Sections	
Merten Hasse Prize	Ursula Whitcher	uaw@umich.edu
Morgan Prize	Carla Savage, AMS Secretary	ams_secretary@ncsu.edu
Pólya Award	Curtis Greene	cgreene@haverford.edu
Pólya Lecturer	Rick Cleary	rcleary@babson.edu
Robbins Prize	Fan Chung Graham	fan@ucsd.edu
Selden Prize	Mary Heid	mkh2@psu.edu
Sliffe Award	Chuck Garner	cgarner@rockdale.k12.ga.us
Solow Award	John Holcomb	j.p.holcomb@csuohio.edu
MAA Secretary	James Sellers	secretary@maa.org
AMS Secretary	Carla Savage	ams_secretary@ncsu.edu

Call for Nominations for Section Officers

Gavin LaRose (UM – Ann Arbor) <glarose@umich.edu>

At the spring Tri-Section Meeting, the Michigan Section will elect several officers. **Laura McLeman** (UM – Flint) will become past-chair of the Section, and **Victor Piercey** (Ferris State U) will be slated as chair. **Natascha Rivet** (Delta C) is nominated for the two-year vice chair.

We are soliciting nominations for a four-year vice chair, who will be in charge of the 2019 spring section meeting. In addition, the section periodically needs people to fill other roles. If you or someone you know is interested in working with the section, please let us know as well by contacting Gavin LaRose <glarose@umich.edu> with a nomination!

Notice of Bylaws Revision

Gavin LaRose (UM – Ann Arbor) <glarose@umich.edu> Chair, Bylaws Revision Committee

The administration of the Michigan Section of the MAA is governed by its bylaws, which are available on the Section website at <sections.maa.org/michigan/documents/bylaws.pdf>.

A revision of these bylaws, developed by a subcommittee of the Section executive committee and recently updated to include changes suggested by the MAA Committee on Committees, will be voted on at the spring 2018 Section meeting.

Please review the revised bylaws, which may be found at <sections.maa.org/michigan/documents/bylaws_revision.html>, and contact Gavin LaRose <glarose@umich.edu> with any concerns, comments, or corrections.

Submitted by the bylaws subcommittee, Gavin LaRose, **Mark Bollman** (Albion C), **Laura McLeman** (UM–Flint), and **Steve Schlicker** (GVSU).

Meetings

AMS Fall 2018 Central Sectional Meeting

Michael A. Jones (Math. Reviews) <maj@ams.org>

The AMS Fall 2018 Central Sectional Meeting will be held October 20–21, 2018 at the University of Michigan, Ann Arbor. See the AMS website for deadlines for organizing a session, registering, etc.

Fourth Annual Kliakhandler Conference

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

The 4th annual Kliakhandler Conference is August 9–11, 2018 on the campus of Michigan Technological University with a focus on graph decompositions. The conference includes a special session, Everyday Combinatorics, focused on high-school level combinatorics for attendees and local high school teachers. For further

information see <kliak.mtu.edu/>.

Annual MichMATYC Conference

Nicole Newman (KVCC) <nnewman@kvcc.edu>

Kalamazoo Valley Community College will be hosting the annual MichMATYC conference on October 12 and 13, 2018. A Friday evening event will be held at the new Bronson Healthy Living Campus in downtown Kalamazoo, followed by the main conference on Saturday at the Texas Township Campus. The theme of the conference is "Every Student Counts: Opportunities for Student Engagement." More information regarding the keynote speaker, registration, and a call for presenters will be made available as planning progresses.

For more information see <michmatyc.org/index.html>.

SIAM Great Lakes Section Annual Meeting

Dan Drucker (Wayne State U) <aa1856@wayne.edu>

The 2018 SIAM Great Lakes Section Annual Meeting will be held at Wayne State University on April 21, 2018.   Please see `<hli.wayne.edu/conferences/glsiam2018/main.html>` for more information.

MAA Upper Peninsula Section Annual Meeting

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

The 2018 Upper Peninsula MAA zonal meeting is October 5th and 6th on the campus of Michigan Technological University. The 2018 Kliakhandler lecture, held at 4p.m. on the 5th, will be given by Dr. **Nick Trefethen**, former SIAM president and head of Oxford University's Numerical Analysis Group. Contributed talks on any area of mathematics are welcome. For further information see `<mtu.edu/math/seminars/maa/>`.

Spring 2018 Mathematical Contest News

David Friday (Macomb CC) <fridayd@macomb.edu>

The American Mathematics Contest 8 (AMC 8) for students in grades 8 and below is a 25-question, 40-minute multiple choice examination in middle school mathematics designed to promote the development and enhancement of problem solving skills; to demonstrate the broad range of topics available for the junior high school mathematics curriculum; and to promote excitement, enthusiasm and positive attitudes towards mathematics.

The 2017 AMC 8 Exam was taken by 102,196 students from 1845 schools, with an average score of 8.97 out of 25 total points. The top 1% scored 20 or above.

One student (down from four last year) in Michigan got a perfect score of 25: 8th grader **Reagan Choi** from Boulan Park MS (Troy). The highest team score, established by the top three scorers at the school, for the state was Boulan Park MS (Troy), with a score of 71 out of 75.

Two students (down from eight last year) in Michigan got a score of 24: 7th grader **Yashwanth Bajji** of Boulan Park MS (Troy), and 8th grader **Sambhav Gupta** from Lawrence Tech (Southfield).

Results from the AMC 10/12 A and AMC 10/12 B are still pending.

Congratulations to all of the 2017 AMC 8 winners!

Michigan Section Dues

Your voluntary dues contribution will help 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.

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.

Michigan Section—Mathematical Association of America
Committees and Appointments

Executive Committee

Chair	(’18)	Laura McLeman (UM-Flint)
		\<lauramcl@umflint.edu> • 810-237-6656
Vice Chair	(’18)	Victor Piercey (Ferris State U)
		\<piercev1@ferris.edu> • 231-591-2823
Vice Chair	(’18)	Natascha Rivet (Delta C)
		\<njrivet@delta.edu> • 989-686-9128
Sec.-Treas.	(’19)	Mark Bollman (Albion C)
		\<mbollman@albion.edu> • 517-629-0261
Past Chair	(’18)	Gavin LaRose (UM-Ann Arbor)
		\<glarose@umich.edu> • 734-764-6454
Sec. Rep.	(’19)	Steve Schlicker (GVSU)
		\<schlicks@gvsu.edu> • 616-331-2305

Michigan Mathematics Prize Competition (MMPC)

Director (’20)	Andy Poe (NMU)
	\<apoe@nmu.edu> • 906-227-1598

MMPC Exam Committee

Chair	(’18)	Michael (Cap) Khoury (LTU)
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Member	(’20)	Dorin Dumitrascu (Adrian C)
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Member	(’21)	Bingwu Wang (EMU)
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2018 Tri-Section Annual Meeting Program Committee

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Member	Timothy Comar (IL)(Bendictine U)
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Distinguished Service Award Committee

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Member	(’20)	Laura McLeman (UM-Flint)
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Distinguished Teaching Award Committee

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Nominating Committee

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Calendar of Events

Michigan Section-MAA Annual Meeting

2018: Valparaiso University (Tri-Section), March 23–24
`<sections.maa.org/indiana/ meetings/Spring18/announcement. html>`.

Upper Peninsula Regional Mathematics Meeting

2018: Michigan Technological University, October 5–6

MAA MathFest

2018: Denver, CO, August 1–4
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

MAA-AMS Joint Mathematics Meetings

2019: Baltimore, MD, January 16–19
2020: Denver, CO, January 15–18
2021: Washington, DC, January 6–9

AMATYC Annual Conference

2018: Orlando, FL, November 15–18,
`<amatyc.org/page/2018ConfHome>`

NCTM Annual Meeting & Exposition

2018: Washington, DC, April 25–28
`<nctm.org/annual/>`
2019: San Diego, CA, April 3–6
2020: Chicago, IL (NCTM Annual Centennial), April 1–4
2020: St. Louis, MO, October 21–24
2021: Atlanta, GA, September 22–25