

MAA MISSOURI SECTION NEWSLETTER

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From the Chair (David Garth)

Spring 2021 Missouri Section MAA Meeting

Due to all the uncertainty surrounding COVID 19, this year's Section Meeting will be moved to a virtual format. Hawkes Learning Systems is helping with the facilitation of this meeting. The meeting will be scheduled for the afternoon of Friday, March 26. The Missouri Collegiate Mathematics Competition will take place the evening of Thursday, March 25 and the morning of Friday, March 26. Jennifer Quinn, who was scheduled to be our speaker last year, will be joining us as this year's speaker. We will also be virtually conducting the annual business meeting on Friday, March 26 as well.

Information about fees, registration, early registration discounts, and abstract submission will appear on the meeting website, which should be available sometime in early January.

Call for papers

We invite both faculty and students to present at the Spring Meeting. Presentations will be on Zoom, and should be 15 minutes long and should focus on mathematics or mathematics education. Examples of presentation topics include but are not limited to current mathematics research, new courses that have been developed, and successful teaching techniques. Talks can be either research-oriented or expository in nature. Many undergraduate and graduate students attend this meeting, and you are welcome to design your presentation for these students. Also, if you are advising a student who is doing research, please encourage the student to present and assist the student in preparing the presentation. The abstract submission form will be available on the meeting website. It also appears on the last page of this newsletter. You may e-mail a scanned copy of the completed form to dgarth@truman.edu (please put "MAA Abstract" in the subject line), or you may send a hard copy via regular mail to the address on the form. The deadline for submissions is March 15, 2021.

From the Secretary/Treasurer (Phoebe McLaughlin)

SECTION TEACHING AWARD

CALL FOR NOMINATIONS

Nominations for the 2021 Missouri Section Award for Distinguished College or University Teaching of Mathematics are now being accepted. The Missouri Section Selection Committee will determine the recipient of the award from those nominated. The awardee will be honored at the Spring 2021 meeting of the Section and will be widely recognized and acknowledged within the Section.

We urge you to submit a nomination for the MAA Missouri Section Teaching Award if you have someone eligible and qualified in your department in order that your candidate has an opportunity to be considered for the Section Award and, if so selected, also for the national award. Even if not selected this year, it is an honor for someone to have been nominated; your department will receive recognition for its commitment to excellence in teaching, and the work done in preparing a nomination folder for your candidate is not wasted since your candidate can be nominated again in a future year. Self-nomination is not permitted.

Please discuss this memo with your colleagues and post it in a prominent place in your department.

Eligibility

- College or university teachers who currently teach a mathematical science at least halftime during the academic year in a public or private college or university (from two-year college teaching through teaching at the Ph.D. level) in the state of Missouri. Those on approved leave (sabbatical or other) during the academic year in which they are nominated qualify if they fulfilled the requirements in the previous year.
- More than seven years of experience in teaching a mathematical science.
- Membership in the Mathematical Association of America.

Guidelines for Nomination

Nominees should

- Be widely recognized as extraordinarily successful in their teaching.*
- Have 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.

* "teaching" is to be interpreted in its broadest sense, not necessarily limited to classroom teaching. It may include activities such as preparing students for mathematical competitions at the college level such as the Putnam Prize Competition or the Mathematical Contest in Modeling, attracting students to become majors in a mathematical science or to become Ph.D. candidates, working with pre-service or in-service teachers, etc.

** "influence beyond..." can take many forms, including demonstrated lasting impact on alumni, influence on the profession through curricular revisions in college mathematics teaching with wide-ranging impact, influential publications or innovative books concerned with the teaching of college mathematics, etc.

Nomination Materials -

1. **Narrative:** Please describe the nominee's extraordinary success in teaching by providing a narrative of the nominee's background, experience, teaching style, special contributions, other teaching awards, and any additional evidence of the nominee's unusual achievement in teaching. Please limit this portion to no more than five double spaced pages.
2. **Letters of Recommendation:** Please include two letters of recommendation of no more than one page each, from the nominee's colleagues (one of whom could be the department chair).

Nomination Deadline – Send all nomination materials to the Secretary, Phoebe McLaughlin, at pmclaughlin@ucmo.edu. The nomination deadline is **by March 1, 2021**, but **submissions before February 15, 2021** are greatly appreciated.

We look forward to your participation in this exciting MAA venture of taking substantive action to honor extraordinarily successful teaching. We want to see such teaching recognized at all post-secondary school levels. We depend on you to help us identify those who merit such recognition.

REMARKS

Nominations for someone from another Section should be sent to the Secretary of the nominee's Section.

At the national level, MAA recognizes outstanding teaching with the Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics; each year at most three awards are given. At least one of the Award recipients must be a current Section nominee. This Section nominee may be the current recipient of the Section Award for Distinguished Teaching or a previous recipient of such an award from any Section. At most one of the Haimo Award recipients may be other than a current or past recipient of a Section Award for Distinguished Teaching. Your nomination for a Section Teaching Award provides the opportunity for the person to be nominated for the national Haimo Award for **two consecutive years** if the nominee is not chosen in Year 1.

Missouri Collegiate Mathematics Competition (Chip Curtis)

The twenty-fifth Missouri Collegiate Mathematics Competition will be held Thursday, March 25, 2021 from 7:30pm - 10:00pm, and Friday, March 26, 2021 from 8:30am - 11:00am, in conjunction with the Missouri Section MAA meeting, hosted by Truman State University. Since

the section meeting will be virtual, the same will be true of the contest. Although details remain to be finalized, the expectation is that team members will interact virtually (or in person at their home institution if conditions make that appropriate).

Any college or university in the state of Missouri can send up to two official teams of 1-3 undergraduates each to compete in the competition. Unofficial teams will be allowed, depending on the amount of available space, but will not be eligible for awards. They will also be charged the normal registration fee. A one-person team will be allowed if this person is his or her college's only representative in the competition. A completed registration form for each team must be received by Monday, March 8. Late registration will be accepted only if there is room available. No calculators or computers or reference material can be used during the competition. The contest consists of challenging mathematical problems, comparable to but not quite as difficult as the Putnam Exam. The official website of the contest is:

<http://sections.maa.org/missouri/contest.html>.

Additional information, registration forms and past contests can be found at that site.

Section NExT (Samuel Chamberlin and Erin Martin)

This fall, we are had our MO Section NExT workshop via Zoom on Thursday 10/15 3-4:30pm. It was a panel discussion: "What's NExT: Teaching During the Pandemic!".

Campus News:

Missouri State University (submitted by William Bray)

New Faculty: Dr. Ngoc Do (Applied Mathematics, Fall 2019); Dr. Yue Cui (Statistics, Fall 2020)

Promotions: Dr. Steven Senger and Dr. Patrick Sullivan to Associate Professor with tenure Fall 2020. Dr. Xingping Sun to Distinguished Professor of Mathematics, Fall 2020.

Retirement: Dr. Vera Stanojevic retired as of May 2020. She will remain with the department as half-time faculty for two years.

Saint Louis University (submitted by Brody Johnson)

The Department of Mathematics and Statistics at Saint Louis University welcomes two new faculty members in Fall 2020. Lauren Miller, a doctoral student in Education at Fontbonne University, joins the faculty as an instructor with a focus on developmental mathematics. Lauren's research interests include developmental mathematics and the success of nontraditional students and underserved populations. Dorsa Ghoreishi comes to SLU as a Visiting Assistant Professor through an ongoing postdoctoral teaching position in the department. Dr. Ghoreishi is a recent graduate of the University of Missouri -- Columbia and her research focuses on phase retrieval using Hilbert space frames. Charles Burnette, who

previously held the postdoctoral teaching position, begins a new position this fall as an Assistant Professor with Xavier University of Louisiana.

Faculty Achievements:

- The Department would like to congratulate Professor Emeritus John Cantwell, who was recognized by the Saint Louis Academy of Mathematical Sciences with the inaugural Julia Robinson Award along with his long-time collaborator, Professor Emeritus Lawrence Conlon of Washington University. The duo produced more than thirty joint papers in the field of topology, including a well-known 1985 paper "Every Surface is a Leaf".
- Professor Bradley Currey co-published a book entitled "Representation of Solvable Lie Groups: Basic Theory and Examples" with Professor Emeritus Didier Arnal of the Institut de Mathématiques de Bourgogne.
- Associate Professor Daniel Freeman received a five-year grant from the Simons Foundation in support of his research in the theory and application of frames.

Southeast Missouri State University (submitted by Dan Daly)

After serving for two and a half years as Interim Chairperson, Dr. Dan Daly was named Chairperson of the Department of Mathematics on August 1, 2020.

University of Missouri – Kansas City (submitted by Richard Delaware)

For both recent student accomplishments and faculty activity see our latest **RoMath News** newsletter posted at:

<https://cas.umkc.edu/math/about-us/department-newsletter/>

Student Accomplishments

- This summer, math major Nina Han obtained an internship as a data analyst at YRC Freight.
- Grace Reesman, Mathematics & Physics major, had the opportunity to participate in a 10-week summer physics internship "at" Fermi National Laboratory near Chicago, IL from her bedroom in Kansas City, MO. Her research was a part of the Deep Underground Neutrino Experiment (DUNE) collaboration in the Neutrino Division.
- Before many people were aware of the COVID-19 virus and its potential for broad infection, UMKC students were building predictive models of its possible spread in January. Hope Mertz, MS '20, Science and Mathematics, studied the spread of COVID-19 for her research project.
- Kim Magee (BS Mathematics and Statistics 2013) was profiled in UMKC's Perspective Magazine on Nov. 18, 2019, <https://perspectives.umkc.edu/destined-to-fly/> "Alumna takes her math skills to the skies as a competitive hot air balloonist."
- Mathematics graduate student Matthew McCoy won the UMKC School of Graduate Studies Superior Teaching Award for GTAs in spring 2020.

- Congratulations to the 2020-2021 recipients of mathematics Jedel Scholarships: Nina Han and April Wickham. The Jedel Scholarship amount is \$2,000 per semester.
- PhD candidates Yawo Ekpoh and Bader S. Alanazi both successfully defended their dissertations on Friday July 10th, 2020, supervised by Dr. Kamel Rekab.

Faculty and Department Activity and Accomplishments:

- Teaching Professor Richard Delaware won the UM System’s President’s Award for Innovative Teaching on June 1.
- Instructor Stephanie Van Rhein won the College of Arts and Sciences Outstanding Teaching Award in October.
- Administrative Assistant Tanya Henderson won the College of Arts and Sciences Staff Member of the Year Award in October.
- The faculty collaborated with other departments and submitted three large grants (NIH R21 \$880k, DOD \$1.7mil, HIN Rapid \$250k). Dr. Majid Bani is the Co-Pi of a recently funded NSF grant titled “Early Community Intervention for Neighborhood Revitalization Using Artificial Intelligence and Emerging Technologies.”
- The Sixth Annual UMKC Math & Stat Research Day (April 17, 2020) was held with a focus on Modeling the COVID-19 Outbreak (<https://cas.umkc.edu/math/msrd2020>). Due to the outbreak, the conference was held through Zoom for the first time. There were 10 research talks from 5 different departments.
- We continue our new “fast track” five-year Bachelor/Master of Science program. Undergraduates can apply to the program (typically in sophomore or junior year), and if accepted can take courses during senior year which will grant credit toward both the BS and MS degrees. To complete both degrees in five years takes some planning.
- The UMKC Applied Mathematics Group is a research group within the Department of Mathematics and Statistics at the University of Missouri-Kansas City, with interdisciplinary research interests in the areas of mathematical biology, scientific computations, applied analysis, and numerical linear algebra. It also provides high quality teaching and professional service to the community such as mathematical modeling, big data analysis and numerical computations. For more information please visit <http://cas.umkc.edu/math/amg/>

For more department history and news about our alumni, see:

<http://d.web.umkc.edu/delawarer/MathDeptHistory.htm>

You can always read about our faculty and other current department news on our department web site: <http://cas.umkc.edu/math/>

Washington University in St. Louis (submitted by John McCarthy)

We had two retirements (and had to cancel the party unfortunately because of COVID): Jack Shapiro, who started here in 1970, and Ed Spitznagel, who started in 1965.

We hired three people: Abby Jager, Karl Schaefer, and Henri Martikainen. I hope they all last 50 years!

FUTURE MEETING SITES

The Spring Meeting is held at various locations around the state. The meeting sites for the next several years are listed below for your convenience. If your campus would be willing to host a Spring Meeting, please contact David Garth, Chair (dgarth@truman.edu), or any other member of the Executive Committee.

- 2021 Truman State University
- 2022 University of Missouri – Kansas City
- 2023 Missouri State University

The MAA Missouri Section Newsletter is usually published in November, March and May each year. Please send any news, comments, questions or corrections to me at ddaly@semo.edu.

*Dan Daly
Newsletter Editor*

**MISSOURI SECTION OF
THE MATHEMATICAL ASSOCIATION OF AMERICA**

ABSTRACT FOR CONTRIBUTED PAPERS

Author(s):

Presenting Author:

Presenter is: faculty member _____ ; graduate student _____ ; undergraduate student _____

Institution:

Address:

Phone: (____) _____ Email: _____

Paper Title:

Abstract:

Is the presentation accessible to students? _____

You may email a scanned copy of the completed form to mckee@ucmo.edu (please use “MAA Abstract” in the subject line) or send by land mail to:

David Garth
Truman State University
100 E. Normal St.
Kirksville, MO 63501

The deadline for submission is February 28, 2021.