

2023 MAA Missouri Section Meeting

Missouri State University, Springfield, MO

March 30 – April 1, 2023

Wi-Fi Access

Network: MSU Sponsored

Password: grape#turtle (on Thursday and Friday), super&ninja (on Saturday)

Thursday, March 30

7:00 pm – 8:00 pm, PSU 317B

MO Section NExT reception

7:30 pm - 10:00 pm, Plaster Student Union Ballroom West (Third Floor)

Missouri Collegiate Math Competition (Part 1)

Friday, March 31

8:30 am - 11:00 am, Pummill Hall 206

MO Section NExT Workshop

8:30 am – 9:30 am

Dr. Amy Ackerberg-Hastings

Finding the Gems in MAA Periodicals: A Convergence Scavenger Hunt

10:00 am – 11:00 am

Dr. Lisa Marano

Using Data to Support Equity-Minded Institutional Change

8:30 am - 11:00 am, Plaster Student Union Ballroom West (Third Floor)

Missouri Collegiate Math Competition (Part 2)

11:00 am – 12:00 pm, Plaster Student Union Ballroom West (Third Floor)

Lunch for Math Competition Participants

MAA Missouri Section Meeting

11:30 am – 12:30 pm, Glass Hall Lobby

Meeting Registration

12:30 pm – 1:30 pm, Glass Hall 102

Opening Remarks: Dean Tammy Jahnke, College of Natural and Applied Sciences

Keynote Speaker: Dr. Lisa Marano

Mathematics and Community Engagement: A story about finding mathematical problems in the community and bringing mathematics into the community

1:30 pm - 5:00 pm, Glass Hall 350

Meeting Registration and Hospitality Room (Coffee, Water, and Snacks available)

2:00 pm - 4:40 pm, Glass Hall 3rd Floor Classrooms

Contributed Talks

Friday			
	Glass Hall 343 Moderator: Jorge Rebaza	Glass Hall 344 Moderator: William Bray	Glass Hall 345 Moderator: Matt Wright
2:00	David Garth <i>Playing Moneyball in Golf</i>	Steven Senger <i>Pseudorandom graphs, VC dimension, and incidence theory</i>	Charlie Smith <i>The Silver Sequence</i>
2:25	Colin Barker <i>Modeling the Role of Socioeconomic Status and Treatment Programs on Typhoid Fever Epidemics</i>	Owen Bennion <i>Bounds on point configurations determined by distance and dot products for some imperfect trees</i>	Mark Rogers <i>Knot Theory, Modular Arithmetic, and Linear Algebra</i>
2:50	William Klasinski <i>Domino Tilings on a Variety of Boards</i>	Collin Moore <i>Covering Groups with Proper Subgroups</i>	R. Lauren Miller <i>Teaching through Play: a new approach to Corequisite College Algebra</i>
3:25	Katarzyna Meyers <i>Woman Lost in History</i>	Samuel Chamberlin <i>Structure Constants for the Universal Enveloping Algebras of the Lie Algebras of Types A_1 and A_2</i>	Brody Johnson <i>Pull-Back Cars: Vehicles for a First Modeling Experience in Differential Equations</i>
3:50	Angela Lopez <i>The Whiz of ENIAC: The Woman Behind the Curtain</i>	Dorsa Ghoreishi <i>Phase Retrieval in Frame Theory</i>	Lianwen Wang <i>Extrema of Multivariable Functions</i>
4:15	Scott Thatcher <i>Calculating Lyapunov Exponents for Human Movement using Motion Capture Data</i>	Lane Rogers <i>The Theory of Calculus on Banach Spaces</i>	Blaise Heider <i>Right cP-Baer rings and their extensions</i>

6:00 pm - 8:00 pm, Plaster Student Union Ballroom West (Third Floor)

Banquet

Keynote Speaker: Dr. Amy Ackerberg-Hastings
 Translating the History of Mathematics Education into Using History to Teach Mathematics

8:00 pm, Plaster Student Union 309

Executive Committee Meeting

Saturday, April 1

6:30 am, Phelps Grove Park

5K Walk/Run

8:30 am - 11:30 am, Glass Hall 350

Meeting Registration and Hospitality Room (Coffee and Water available)

8:30 am - 11:10 am, Glass Hall 3rd Floor Classrooms

Contributed Talks

Saturday			
	Glass Hall 343 Moderator: Roger Bunn	Glass Hall 344 Moderator: Steven Senger	Glass Hall 345 Moderator: Matt Wright
8:30	Gavin Moore <i>Proof of the addition/ subtraction formulas for sine and cosine</i>	Emily Twardy <i>Supercharacter Theories for Dihedral Groups</i>	Ridwan Sakidja <i>Use of applied mathematics in artificial neural networks (ANN) to model advanced and complex materials</i>
8:55	Josh Stanek <i>The half-angle formulas for sine and cosine</i>	Jae Hyeong Lee <i>A Study of Bi-Lipschitz Embeddability into Euclidean Spaces</i>	David McCune <i>Ranked Choice Bedlam in a 2022 Oakland School Director Election</i>
9:20	Jarrin Brown <i>Building the 15° - $\pi/12$ radian Unit Circle</i>	Mary Silverglate <i>Cheeger's Inequality: Theory and Applications</i>	Taylor Harrison <i>AP Statistics: Who Teachers it and What do They Emphasize?</i>
9:55	Josh Putty <i>Building the 18° - $\pi/10$ radian Unit Circle</i>	Kwame Yeboah <i>Bundling Your Insurance: A Comparative Study of Some Classification Methods</i>	R. Lauren Miller <i>A Pathway for Expanding Math Education in Prison</i>
10:20	Joscalyn Hulderson <i>Monotonicity of Sequences Generated by Powers of the kth-order Fibonacci Recurrence Relation</i>	Emmanuel Ocran <i>A Nonparametric Random Forest Multiple Imputation Method for Missing Categorical Data</i>	Kevin Anderson <i>Happy Birthday!</i>
10:45	Rachel Lee and Yashasvi Moon <i>Quantum Orthogonal Latin Squares</i>	Emmanuel Nsiah <i>A Comparison of Variant Methods in Random Forest with Multicollinearity Data for Classification</i>	Matt Wright <i>Interpolation using Polynomials with Restricted Exponents</i>

11:30 am, Glass Hall 343

Missouri Section Business Meeting