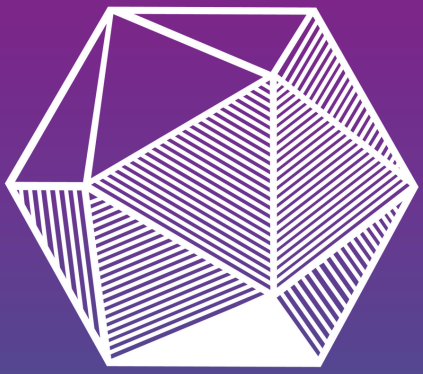


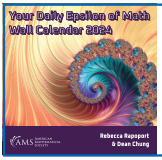
MAA MATHFEST

It all starts with Math.

2023 | TAMPA, FL

THE AMERICAN MATHEMATICAL SOCIETY IS HAPPY TO BE BACK AT MATHFEST!

Stop by booths 200–208 for our book sale!
AMS and MAA members receive additional discounts.



Pick up the *Your Daily Epsilon of Math Calendar 2024*

bookstore.ams.org/MBK/147

New! Kids Apparel

AMS AMERICAN MATHEMATICAL SOCIETY
Advancing research. Creating connections.

MAA MATHFEST MAP

WELCOME TO MAA MATHFEST 2023!

Since my first MAA MathFest in 1996, this meeting has felt like the last day that the pool is open, the end of summer neighborhood get-together, or the summer family reunion. These events allow sharing memories, envisioning the future, and meeting new friends through older friends – much like MAA MathFest. These events are generally full of celebration and laughter, and they also serve as a place for serious conversations.

MAA MathFest 2023 in Tampa, Florida, will be no different. Our venue, the Tampa Convention Center, located at the mouth of the Hillsborough River, with views of Tampa Bay and the city's skyline, and a water taxi away from Harbour Island, will set the stage for celebrating, teaching, and learning mathematics and its impact on the world.

This year we will kick off MAA MathFest with a special panel, "The Future of Higher Education: Lessons From Florida," co-organized by MAA's Executive Director, Michael Pearson. This will be followed by the Prize Session, where various members of our community will assist me in announcing and celebrating our prize recipients. Jane Castor, Tampa Mayor, will welcome us all before we move into the Exhibit Hall for the Grand Opening Reception. Throughout MAA MathFest, we will extend the celebration of the prize recipients at the MAA Pavilion, where the recipients will say a few words, or at Ballroom B/C, where we can learn about teaching from the Alder and Haimo Award recipients.

I am always amazed by the list of invited address topics, and this year's list of speakers won't disappoint. Mary Lou Zeeman's Earle Haymond Hedrick Lecture is sure to make us reflect on climate change and learn a little about resilience equations. Caroline Colijn and Fern Hunt, MAA Invited Lecturers, will share how diseases or communication in social networks give rise to new mathematics. Our Christine Darden Lecturer, Ricardo Cortez, will share the value of student-generated ideas for mathematical models rather than previously established ones. Given the tensions in our society, I am especially excited to hear Ron Buckmire's comments about differences as part of his NAM David Harold Blackwell Lecture. I would be remiss if I didn't remind you that Jenny Quinn will deliver the MAA President's Retiring Address – you can count on the fact that it will be full of good lessons. Be sure to check out the Invited Paper Sessions because several Invited Address speakers will be organizers for these sessions.

This year we have a record number of student poster presentations; there are well over 100. These presentations as well as a Rubik's Cube Demo will take place Friday morning. And, because it is the end of the summer, we will have a Block Party in the Exhibit Hall at noon on Friday – I hope to see you there.

My favorite part of MAA MathFest is always seeing old and meeting new friends. I will miss those of you who will not be in attendance. Finally, organizing MAA MathFest takes lots of time and energy from the MAA Staff and the MAA Associate Secretary, Nancy Neudauer, so please take time to thank them.

Hugs,
Hortensia (Tensia) Soto
PRESIDENT, MATHEMATICAL ASSOCATION OF AMERICA

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INVITED ADDRESSES

MAA EARLE RAYMOND HEDRICK LECTURE SERIES

Mary Lou Zeeman, *Bowdoin College*

Lecture I - Flow-kick Systems for Studying Resilience
Thursday, August 3, 11:00 a.m. - 11:50 a.m., Ballroom B/C

Lecture II - A New Framework for Harnessing Reactivity
Friday, August 4, 9:00 a.m. - 9:50 a.m., Ballroom B/C

AMS-MAA JOINT INVITED ADDRESS

Sloan Evans Despeaux, *Western Carolina University*

Oswald Veblen: Success through Collaboration
Thursday, August 3, 9:00 a.m. - 9:50 a.m., Ballroom B/C

MAA INVITED ADDRESS

Jason Brown, *Dalhousie University*

All You Need is Math: Connections Between Mathematics and Music
Thursday, August 3, 1:00 p.m. - 1:50 p.m., Ballroom B/C

MAA INVITED ADDRESS

Fern Hunt, *National Institute of Standards*

A Markov Chain Approach to Finding Effective Spreaders in a Network
Thursday, August 3, 10:00 a.m. - 10:50 a.m., Ballroom B/C

MAA JAMES R.C. LEITZEL LECTURE

Daniel Zaharopol, *Bridge to Enter Advanced Mathematics (BEAM)*

Nobody Majors in STEM Hoping to Fail
Friday, August 4, 10:00 a.m. - 10:50 a.m., Ballroom B/C

INVITED ADDRESSES

MAA INVITED ADDRESS

Caroline Colijn, *Simon Fraser University*

How the COVID-19 Pandemic Raises the Need for New Mathematics
Friday, August 4, 11:00 a.m. - 11:50 a.m., Ballroom B/C

AWM-MAA ETTA ZUBER FALCONER LECTURE

Tatiana Toro, *University of Washington, Mathematical Sciences Research Institute (MSRI)*

Geometry of Measures
Friday, August 4, 1:00 p.m. - 1:50 p.m., Ballroom B/C

CHAN STANEK LECTURE FOR STUDENTS

Lara Pudwell, *Valparaiso University*

Patterns in Permutations
Friday, August 4, 2:00 p.m. - 2:50 p.m., Ballroom B/C

CHRISTINE DARDEN LECTURE

Ricardo Cortez, *Tulane University*

The Many Roles of Mathematical Modeling
Saturday, August 5, 9:00 a.m. - 9:50 a.m., Ballroom B/C

MAA PRESIDENT RETIRING ADDRESS

Jennifer Quinn, *University of Washington Tacoma*

Lessons that Really Count
Saturday, August 5, 10:00 a.m. - 10:50 a.m., Ballroom B/C

INVITED ADDRESSES

NAM DAVID HAROLD BLACKWELL LECTURE

Ron Buckmire, *Occidental College*

Different Differences
Saturday, August 5, 11:00 a.m. - 11:50 a.m., Ballroom B/C

MARTIN GARDNER LECTURE

Susan Goldstine, *St. Mary's College of Maryland*

Maps of Strange Worlds: Adventures in Topological Art
Saturday, August 5, 2:00 p.m. - 2:50 p.m., Ballroom B/C

STUDENT ACTIVITY SPEAKER

Kevin Knudson, *University of Florida*

Five Platonic Friends
Saturday, August 5, 1:00 p.m. - 1:50 p.m., Ballroom A

MAA PAVILION EVENTS

Events will be held in the MAA MathFest Exhibit Hall specifically in the MAA Pavilion.

Exhibit Hall Grand Opening & Reception

Wednesday, August 2, 7:00 p.m. - 9:00 p.m., West Hall

The MAA MathFest Grand Opening Reception will launch this year's MAA MathFest on a high note. This event is intended to draw attendees together in a spirit of camaraderie. We warmly invite you to enjoy complimentary light hors d'oeuvres while you mix and mingle in the Exhibit Hall with other registered participants and guests, sponsors, and exhibitors.

Prizes and Awards Meet & Greet

Wednesday, August 2, 7:30 p.m. - 8:30 p.m., Exhibit Hall

The MAA Prize Winners will be celebrated throughout MAA MathFest. We invite everyone to join us in this first Meet and Greet event to congratulate the winners of the **Gung & Hu, Inclusivity**, **Dolciani**, and **Stevens** Awards.

Organizers:
Cindy Wyels, *CSU Channel Islands*
Hortensia Soto, *Colorado State University*

Your Member Portal: 20 Tips in 20 Minutes

Thursday, August 3, 9:30 a.m. - 10:00 a.m., Exhibit Hall

This session will provide members with helpful tips on how to navigate their new MAA Member Portal to access their member benefits - like journals, videos, books, and affiliate discounts - connect with members, renew their membership and update their personal info and preferences.

Organizers:
Steven Coolbaugh, *Mathematical Association of America*
Justin Cortez, *Mathematical Association of America*

Getting to Know MAA Connect

Thursday, August 3, 10:00 a.m. - 11:00 a.m., Exhibit Hall

Are you stumped about how to find things on MAA Connect? How to even log in? Bring your questions and join us for a session designed to demystify this resource and let you use it to its fullest potential!

Organizer:
Twila Cotter, *Mathematical Association of America*

Prizes and Awards Meet & Greet

Thursday, August 3, 12:00 p.m. - 1:00 p.m., Exhibit Hall

The MAA Prize Winners will be celebrated throughout MAA MathFest. We invite everyone to join us in this Meet and Greet even to congratulate the winners of the **Hesse**, **Pólya**, **Halmos-Ford**, **Evans**, and **Allendoerfer** Awards.

Organizers:
Cindy Wyels, *CSU Channel Islands*
Hortensia Soto, *Colorado State University*
Stan Seltzer, Chair, *MAA Council on Publications, Ithaca College*
Susan Staples, *Past Chair, MAA Council on Publications, Texas Christian University*

MAA PAVILION EVENTS

Member Portal: Ask the Experts

Thursday, August 3, 1:00 p.m. - 2:00 p.m., Exhibit Hall

If you have questions about how to use your MAA Member Portal, we have the answers. Stop by the MAA Pavilion and we'll do our best to get you up and running!

Organizers:
Steven Coolbaugh, *Mathematical Association of America*
Justin Cortez, *Mathematical Association of America*

Trivia Event

Thursday, August 3, 2:00 p.m. - 3:00 p.m., Exhibit Hall

Come join fellow math enthusiasts for a fun time of team trivia. Questions will focus on the history of mathematics, and mathematical connections to the Sunshine State. Undergraduates are especially encouraged to attend, but the contest is open to everyone!

Organizers:
Ximena Catepillán, *Millersville University*
Abe Edwards, *Michigan State University*
Greg Coxson, *US Naval Academy*

Sponsors:
Committee on Undergraduate Student Programming (CUSP)
SIGMAA on the History of Mathematics (SIGMAA HOM)

Play Backgammon!

Thursday, August 3, 2:00 p.m. - 4:00 p.m., Exhibit Hall

Join us for backgammon at the MAA Pavillion!. It's a fun and exciting game where players with a good mathematics background have a decisive advantage. Boards will be set up and ready for action! Even if you've never played before, we'll have folks on hand to get you started. Stop by to join the fun!

Organizers:
Art Benjamin, *Harvey Mudd College*
Michael Pearson, *Executive Director, Mathematical Association of America*
Doug Ensley, *Mathematical Association of America*
Stacy Turner, *US Backgammon Federation*

Prizes and Awards Meet & Greet

Thursday, August 3, 3:00 p.m. - 4:00 p.m., Exhibit Hall

The MAA Prize Winners will be celebrated throughout MAA MathFest. We invite everyone to join us in this Meet and Greet event to congratulate the winners of the **Euler Book**, **Solow Author's**, **Chauvenet**, and **Robbins** Awards.

Organizers:
Cindy Wyels, *CSU Channel Islands*
Hortensia Soto, *Colorado State University*
Edray Goins, *Chair of Congress, Pomona College*
Adriana Salerno, *MAA Vice-President, Bates College*

MAA PAVILION EVENTS

Life Member Mixer
Thursday, August 3, 4:30 p.m. - 6:00 p.m., Exhibit Hall

We want to celebrate and thank our Life Members for their dedication to the MAA, and ask them to bring a new member to join in the fun.

Organizer:
Steven Coolbaugh, *Mathematical Association of America*

Your Member Portal: 20 Tips in 20 Minutes
Friday, August 4, 9:30 a.m. - 10:00 a.m., Exhibit Hall

This session will provide members with helpful tips on how to navigate their new MAA Member Portal to access their member benefits - like journals, videos, books, and affiliate discounts - connect with members, renew their membership and update their personal info and preferences.

Organizers:
Steven Coolbaugh, *Mathematical Association of America*
Justin Cortez, *Mathematical Association of America*

Member Portal: Ask the Experts
Friday, August 4, 10:00 a.m. - 11:00 a.m., Exhibit Hall

If you have questions about how to use your MAA Member Portal, we have the answers. Stop by the MAA Pavilion and we'll do our best to get you up and running!

Organizers:
Steven Coolbaugh, *Mathematical Association of America*
Justin Cortez, *Mathematical Association of America*

The Rubik's Cube: 50 Years of Embodied Group Theory
Friday, August 4, 10:30 a.m. - 11:30 a.m., Exhibit Hall

What is the mathematics behind the Rubik's Cube? How can the Rubik's cube be used to demonstrate fundamental concepts in group theory to students? Come see how a solution can be easily built from just commutators and conjugation. Watch a Rubik's Cube being solved. While blindfolded! Me, not the cube. We'll also have time for audience members to participate in a speed contest and engage in discussion and questions about the Rubik's Cube, its history and mathematics.

Organizer:
Brett Stevens, *Carleton University*

VITAL Faculty Meet & Greet
Friday, August 4, 11:00 a.m. - 12:00 p.m., Exhibit Hall

Members of the committee on VITAL (Visitors, Interim, TA, Adjuncts, Lecturers) concerns will be meeting and greeting VITAL faculty and gathering feedback on their needs and wants as they pertain to the MAA and to the mathematics community at large. TT and Tenured Faculty are also encouraged to attend so they can relay information back to their VITAL faculty.

Hosts:
Grace Cook, *Bloomfield College of Montclair State University*
Stephen Coolbaugh, *Mathematical Association of America*

MAA PAVILION EVENTS

Expo Block Party and Meet the Puppies!
12:00 p.m. -1:00 p.m., Exhibit Hall

Join the celebration for a block party of food, activities, and excitement in the Exhibit Hall!

Expo Block Party! sponsored by Mathematical Association of America, Visit Tampa Bay, American Mathematical Society, Pearson, and National Security Agency

Meet the Puppies! sponsored by Hudson River Trading

Meet the Scatterplot Editorial Team
Friday, August 4, 1:00 p.m. - 2:00 p.m., Exhibit Hall

Scatterplot: The MAA Journal of Data Science is debuting in early 2024. This event will introduce the editor and several members of the editorial board. It will be an opportunity for members to learn more about Scatterplot, as well as a chance to meet the editorial team.

Organizers:
Carol Baxter, *Mathematical Association of America*
Richard Cleary, *Babson College*

Prizes and Awards Meet & Greet
Friday, August 4, 2:00 p.m. - 3:00 p.m., Exhibit Hall

The MAA Prize Winners will be celebrated throughout MAA MathFest. We invite everyone to join us in this Meet and Greet event to congratulate the winners of the **Meritorious Service** Awards.

Organizers:
Cindy Wyels, *CSU Channel Islands*
Hortensia Soto, *Colorado State University*
Allen Butler, *MAA Treasurer, Daniel H. Wagner, Associates*
Cheryl Adams, *Mathematical Association of America*

Play Backgammon!
Friday, August 4, 2:30 p.m. - 4:30 p.m., Exhibit Hall

Join us for backgammon at the MAA Pavillion!. It's a fun and exciting game where players with a good mathematics background have a decisive advantage. Boards will be set up and ready for action! Even if you've never played before, we'll have folks on hand to get you started. Stop by to join the fun!

Organizers:
Art Benjamin, *Harvey Mudd College*
Michael Pearson, *Executive Director, Mathematical Association of America*
Doug Ensley, *Mathematical Association of America*
Stacy Turner, *US Backgammon Federation*

Celebrating 20 Years of NREUP!
Friday, August 4, 3:30 p.m. - 5:00 p.m., Exhibit Hall

Join MAA as we celebrate 20 years of the National Research Experience for Undergraduate Program (NREUP). We will celebrate students who will share posters of their work, hear from previous NREUP students and meet the current NREUP leadership team. Make sure to stay for our toast celebrating 20 years of this phenomenal program.

Organizers:
Rebecca Garcia, *Colorado College*
Kiera Edwards, *Mathematical Association of America*
Grace Murrin, *Mathematical Association of America*

EXHIBIT HALL SCHEDULE OF EVENTS

Wednesday, August 2nd
7pm - 9pm: Exhibit Hall Grand Opening Reception

Thursday, August 3rd
9am - 6pm: Exhibit Hall Open Hours
10:30am - 11am: Coffee Break! *Sponsored by Pearson, Booth 113*

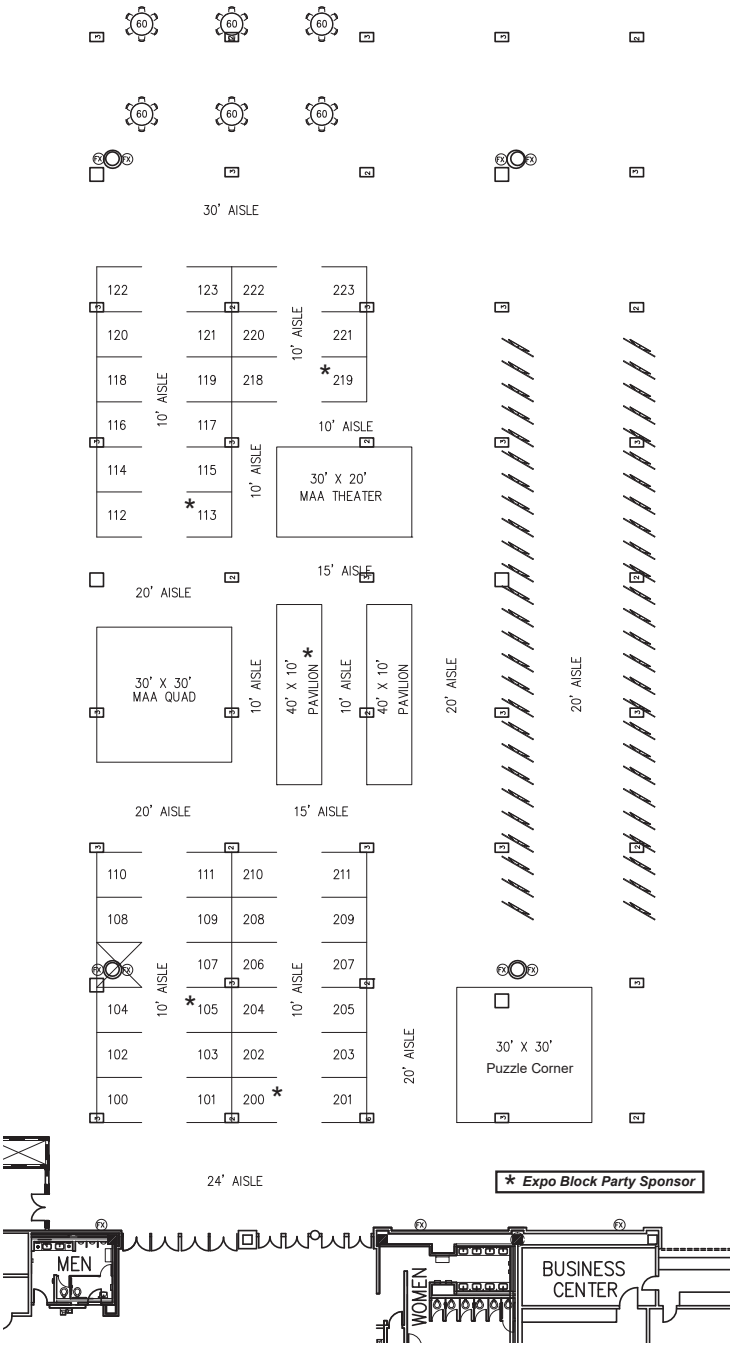
Friday, August 4th
9am - 5pm: Exhibit Hall Open Hours
12pm - 1pm: Expo Block Party! *Sponsored by MAA, Visit Tampa Bay, American Mathematical Society, Pearson, and National Security Agency*
12pm - 1pm: Puppy Break! *Sponsored by Hudson River Trading*

EXHIBITORS AND SPONSORS

American Institute of Mathematics (Booth 109)
American Mathematical Association of Two-Year Colleges (Booth 115)
American Mathematical Society (Booth 200) *
Association for Women in Mathematics (Booth 114)
Books Like Me (Booth 119)
Budapest Semesters in Mathematics Education (Booth 112)
CASIO (Booth 203)
Citadel | Citadel Securities ^
CoCalc by SageMath, Inc. (Booth 108)
Crowdmark (Booth 100)
Current Initiatives (Booth 220)
DE GRUYTER (Booth 210)
Drexel University Department of Mathematics ^
Edfinity (Booth 201)
Elizabeth City State University Graduate Education (Booth 118)
The FitzLane Project (Booth 221)
Hawkes Learning (Booth 101)
Hudson River Trading ^
Jane Street (Puzzle Corner) *
Macmillan Learning ^
Mathematical Association of American (MAA Pavilion) *
MathHappens Foundation (Booth 110)
MyOpenMath (Booth 116)
National Security Agency (Booth 105) *
oSTEM (Out in STEM) (Booth 117)
Overleaf (Booth 205)
Oxford University Press (Booth 104)
Pearson (Booth 113) *
Princeton University Press (Booth 102)
The PROSE Consortium (Booth 107)
Rising Glory Productions | India White Consulting LLC (Booth 218)
Two Sigma ^
Visit Tampa Bay (Booth 219) *
Way to Succeed (Booth 209)
Zim Olson and Zim Mathematics (Booth 211)

* Exhibitor / Sponsor
^ Sponsor Only

EXHIBIT HALL FLOOR PLAN



WEDNESDAY SCHEDULE, AUGUST 2

Committee Meeting

MAA Congress Meeting
8:00 a.m. - 3:30 p.m., Florida Salons I-III (Tampa Marriott Water Street)

Registration & Information
2:00 p.m. - 8:00 p.m., West Hall Registration

Workshop

A Brief Introduction to Mathematical Crystallography: Crystal Structures
3:00 p.m. - 4:20 p.m., Room 103/104

Panel

The Future of Higher Education: Lessons from Florida
3:50 p.m. - 4:50 p.m., Ballroom B/C

Math Jeopardy and the Student Welcome Reception, *Sponsored by Citadel / Citadel Securities*

4:00 p.m. - 5:30 p.m., Ballroom A

MAA Prize Session

5:00 p.m. - 6:15 p.m., Ballroom B/C

Mayoral Remarks

6:15 p.m. - 6:45 p.m., Ballroom B/C
Remarks by Mayor Jane Castor of the City of Tampa

Exhibit Hall Social Event

Exhibit Hall Grand Opening & Reception
7:00 p.m. - 9:00 p.m., West Hall

MAA Pavilion Event

Prizes and Awards Meet & Greet
7:30 p.m. - 8:30 p.m., Exhibit Hall

THURSDAY SCHEDULE, AUGUST 3

Registration & Information

7:30 a.m. - 6:00 p.m., West Hall Registration

Introduction to MAA MathFest

8:00 a.m. - 9:00 a.m., Room 101/102

MAA Invited Paper Session

Special Functions and Constants in Geometry and Trigonometry
8:00 a.m. - 10:50 a.m., Room 118/119

MAA Invited Paper Session

Trends in Mathematical and Computational Biology
8:00 a.m. - 10:20 a.m., Ballroom A

Contributed Paper Session

Research on Undergraduate Mathematics Education, Part A
8:00 a.m. - 10:55 a.m., Room 121

Contributed Paper Session

Incorporating Alternative Forms of Assessment into Undergraduate Mathematics Classes, Part A
8:00 a.m. - 10:55 a.m., Room 105

Contributed Paper Session

Teaching and Learning of Differential Equations, Part A
8:00 a.m. - 10:55 a.m., Room 117

Contributed Paper Session

Improving DEI in Departments and Programs: Examples and Case Studies
8:00 a.m. - 10:35 a.m., Room 120

AWM Panel

Mental Health in the Mathematics Community
8:00 a.m. - 9:20 a.m., Room 122/123

Workshop

Assessing Mathematical Modeling in the Classroom
8:00 a.m. - 9:20 a.m., Room 103/104

THURSDAY SCHEDULE, AUGUST 3

Minicourse

The *i* Road to Upper-Level Undergraduate Mathematics, Part A
8:00 a.m. - 10:00 a.m., Room 107

AMS-MAA Joint Invited Address

Sloan Evans Despeaux, *Western Carolina University*
Oswald Veblen: Success through Collaboration
9:00 a.m. - 9:50 a.m., Ballroom B/C

Poster Session

Poster Session for Projects Supported by the NSF Division of Undergraduate Education
9:00 a.m. - 10:30 a.m., Exhibit Hall

Poster Session

Outreach Activities Poster Session
9:00 a.m. - 10:30 a.m., Exhibit Hall

Exhibit Hall Open Hours

9:00 a.m. - 6:00 p.m., West Hall

Panel

From Merely Surviving to Beginning to Thrive: GTAs and First-year Faculty Reflect on a Multifaceted GTA Training Program
9:30 a.m. - 10:50 a.m., Room 122/123

Workshop

All of Calculus in One Semester – Meeting Students Where They're at
9:30 a.m. - 10:50 a.m., Room 103/104

MAA Pavilion Event

Your Member Portal: 20 Tips in 20 Minutes
9:30 a.m. - 10:00 a.m., Exhibit Hall

MAA Invited Address

Fern Hunt, *National Institute of Standards*
A Markov Chain Approach to Finding Effective Spreaders in a Network
10:00 a.m. - 10:50 a.m., Ballroom B/C

THURSDAY SCHEDULE, AUGUST 3

MAA Pavilion Event

Getting to Know MAA Connect
10:00 a.m. - 11:00 a.m., Exhibit Hall

Exhibit Hall Social Event

Coffee Break! Sponsored by Pearson
10:30 a.m. - 11:00 a.m, Booth #113, Exhibit Hall

Poster Session

MAA Contributed Poster Session
10:45 a.m. - 12:00 p.m., Exhibit Hall

MAA Earle Raymond Hedrick Lecture Series

Mary Lou Zeeman, *Bowdoin College*
Lecture Series: Resilience, Reactivity and Flow-Kick Dynamics Lecture I - Flow-kick Systems for Studying Resilience
11:00 a.m. - 11:50 a.m., Ballroom B/C

MAA Pavilion Event

Prizes and Awards Meet & Greet
12:00 p.m. - 1:00 p.m., Exhibit Hall

MAA Invited Address

Jason Brown, *Dalhousie University*

All You Need is Math: Connections Between Mathematics and Music
1:00 p.m. - 1:50 p.m., Ballroom B/C

Contributed Paper Session

Inquiry-Based Learning, Part A
1:00 p.m. - 3:55 p.m., Room 115/116

Minicourse

Teaching Single Variable Calculus with Active Calculus and Runestone, Part A
1:00 p.m. - 3:00 p.m., Room 105

THURSDAY SCHEDULE, AUGUST 3

Minicourse

An Introduction to the Scholarship of Teaching and Learning, Part A
1:00 p.m. - 3:00 p.m., Room 107

MAA Pavilion Event

Member Portal: Ask the Experts
1:00 p.m. - 2:00 p.m., Exhibit Hall

MAA Invited Paper Session and Jam Session (aligned with an MAA Invited Address)"

Applications of Mathematics to Music
2:00 p.m. - 7:00 p.m., Ballroom B/C

Contributed Paper Session

Implementing Corequisite Education, Part A
2:00 p.m. - 5:55 p.m., Room 121

Panel

The Art of Publishing in MAA Journals
2:00 p.m. - 3:20 p.m., Room 122/123

MAA Pavilion Event

Trivia Event
2:00 p.m. - 3:00 p.m., Exhibit Hall

MAA Pavilion Event

Play Backgammon!
2:00 p.m. - 4:00 p.m., Exhibit Hall

Minicourse

Visualizing Projective Geometry Through Photographs and Perspective Drawings, Part A
3:00 p.m. - 5:00 p.m., Room 117

Minicourse

An Introduction to Becoming a Math JEDI (Justice, Equity, Diversity, and Inclusion), Part A
3:00 p.m. - 5:00 p.m., Room 105

THURSDAY SCHEDULE, AUGUST 3

Minicourse

Supporting Active Learning with Technology, Part A
3:00 p.m. - 5:00 p.m., Room 107

MAA Pavilion Event

Prizes and Awards Meet & Greet
3:00 p.m. - 4:00 p.m., Exhibit Hall

Poster Session

Moving Toward Data Science in Statistics and Sports
3:30 p.m. - 5:00 p.m., Exhibit Hall

Town Hall

Making an Impact: How Can Our Community Best Support High Impact Practices in Mathematics Teaching and Learning?
3:30 p.m. - 4:20 p.m., Room 122/123

Section Officers Meeting

3:30 p.m. - 6:00 p.m., Room 108/109

Competitions Session

Support Mathematical Creativity in Young Minds - Host the AMC
3:30 p.m. - 4:50 p.m., Room 103/104

Contributed Paper Session

Mathematical Modeling with Preservice (and In-Service) Teachers
4:00 p.m. - 5:55 p.m., Room 120

Estimathon! *Sponsored by Jane Street*

4:00 p.m. - 5:45 p.m., Ballroom A

SIGMAA Activity

SIGMAA on Inquiry-Based Learning (SIGMAA IBL) Reception
4:00 p.m. - 5:30 p.m., Room 115/116

Panel

Math Leadership in Action: Experiences, Opportunities, Challenges, and Strategies in Leading a Coordinated Course
4:30 p.m. - 5:50 p.m., Room 122/123

THURSDAY SCHEDULE, AUGUST 3

MAA Pavilion Event

Life Member Mixer
4:30 p.m. - 6:00 p.m., Exhibit Hall

Contributed Paper Session

Mathematics and the Life Sciences: Initiatives, Programs, Curricula
5:00 p.m. - 5:55 p.m., Room 117

Workshop

Inspiring Great Classroom Discussions by Teaching with Primary Historical Sources
5:00 p.m. - 6:20 p.m., Room 103/104

Social Event

NSA Networking Night (partnership with Women in Mathematics Society)
6:00 p.m. - 8:00 p.m., Room 114

SIGMAA Activity

SIGMAA on Mathematics and Sports (SIGMAA SPORTS) Business Meeting and Guest Lecture
6:00 p.m. - 7:30 p.m., Room 118/119

SIGMAA Activity

SIGMAA on Mathematical and Computational Biology (SIGMAA BIO) Business Meeting, Reception, and Guest Lecture
6:00 p.m. - 8:00 p.m., Room 117

SIGMAA Activity

SIGMAA on Mathematical Knowledge for Teaching (SIGMAA MKT) Business Meeting and Connector
6:00 p.m. - 7:00 p.m., Room 120

FRIDAY SCHEDULE, AUGUST 4

Registration & Information
7:30 a.m. - 5:00 p.m., West Hall Registration

MAA Invited Paper Session

Frontiers in Differential Equations and Applications
8:00 a.m. - 10:20 a.m., Room 118/119

MAA Invited Paper Session

Quantitative Justice: Incorporating Social Justice in Research, the Classroom, and More
8:00 a.m. - 10:50 a.m., Ballroom A

Contributed Paper Session

Leveraging Outside Partnerships and Authentic Tasks to Develop Quantitative Literacy and Reasoning
8:00 a.m. - 11:15 a.m., Room 120

Contributed Paper Session

Ethnomathematics: Culture Meets Mathematics in the Classroom
8:00 a.m. - 9:15 a.m., Room 121

Contributed Paper Session

Analysis and Algebra: Convincing Students They Can Do It
8:00 a.m. - 11:35 a.m., Room 117

Workshop

Building a SCORE Module to Teach Statistics with Sports Data
8:00 a.m. - 9:20 a.m., Room 103/104

Workshop

Engaging with ChatGPT
8:00 a.m. - 9:20 a.m., Room 122/123

Minicourse

Visualizing Projective Geometry Through Photographs and Perspective Drawings, Part B
8:00 a.m. - 10:00 a.m., Room 107

Minicourse

The Who, Why, and How of Undergraduate Research in Math, Part A
8:00 a.m. - 10:00 a.m., Room 108/109

FRIDAY SCHEDULE, AUGUST 4

MAA Earle Raymond Hedrick Lecture Series

Mary Lou Zeeman, *Bowdoin College*
Lecture Series: Resilience, Reactivity and Flow-Kick Dynamics Lecture II - A New Framework for Harnessing Reactivity
9:00 a.m. - 9:50 a.m., Ballroom B/C

Poster Session

Research in Motion (Undergraduate Student Poster Session)
9:00 a.m. - 12:00 p.m., Exhibit Hall
Note: 9:00 a.m. - 10:00 a.m. will be for students and judges only

Exhibit Hall Open Hours

9:00 a.m. - 5:00 p.m., West Hall

Panel

How Are You Effectively Placing Students in Their First Math Course and Supporting Students in their Placements?
9:30 a.m. - 10:50 a.m., Room 122/123

MAA Pavilion Event

Your Member Portal: 20 Tips in 20 Minutes
9:30 a.m. - 10:00 a.m., Exhibit Hall

Contributed Paper Session

My Biggest Teaching Flop
9:35 a.m. - 10:30 a.m., Room 121

MAA James R.C. Leitzel Lecture

Daniel Zaharopol, *Bridge to Enter Advanced Mathematics (BEAM)*

Nobody Majors in STEM Hoping to Fail
10:00 a.m. - 10:50 a.m., Ballroom B/C

MAA Pavilion Event

Member Portal: Ask the Experts
10:00 a.m. - 11:00 a.m., Exhibit Hall

MAA Pavilion Event

The Rubik's Cube: 50 Years of Embodied Group Theory
10:30 a.m. - 11:30 a.m., Exhibit Hall

FRIDAY SCHEDULE, AUGUST 4

MAA Invited Address

Caroline Colijn, *Simon Fraser University*

How the COVID-19 Pandemic Raises the Need for New Mathematics
11:00 a.m. - 11:50 a.m., Ballroom B/C

MAA Pavilion

VITAL Faculty Meet & Greet
11:00 a.m. - 12:00 p.m., Exhibit Hall

Exhibit Hall Social Event

Expo Block Party! Sponsored by MAA, Visit Tampa Bay, American Mathematical Society, Pearson, and National Security Agency
12:00 p.m. - 1:00 p.m., Exhibit Hall

Puppy Break! Sponsored by Hudson River Trading
12:00 pm - 1:00 pm, The Quad, Exhibit Hall

AWM-MAA Etta Zuber Falconer Lecture

Tatiana Toro, *University of Washington, Mathematical Sciences Research Institute (MSRI)*

Geometry of Measures
1:00 p.m. - 1:50 p.m., Ballroom B/C

Contributed Paper Session

Research on Undergraduate Mathematics Education, Part B
1:00 p.m. - 5:35 p.m., Room 121

Contributed Paper Session

Linear Algebra: Modern Applications and Computation
1:00 p.m. - 3:55 p.m., Ballroom A

Contributed Paper Session

Teaching and Learning of Differential Equations, Part B
1:00 p.m. - 4:35 p.m., Room 106

Minicourse

Teaching Single Variable Calculus with Active Calculus and Runestone, Part B
1:00 p.m. - 3:00 p.m., Room 105

FRIDAY SCHEDULE, AUGUST 4

Minicourse

Jumpstarting Your Scholarship, Part A
1:00 p.m. - 3:00 p.m., Room 108/109

MAA Pavilion Event

Meet the *Scatterplot* Editorial Team
1:00 p.m. - 2:00 p.m., Exhibit Hall

Competitions Session

Award-Winning Practices for Teaching K-12 Mathematics
1:00 p.m. - 2:20 p.m., Room 118/119

Chan Stanek Lecture for Students

Lara Pudwell, *Valparaiso University*

Patterns in Permutations
2:00 p.m. - 2:50 p.m., Ballroom B/C

Contributed Paper Session

My Favorite Statistics / Data Science Activity
2:00 p.m. - 5:55 p.m., Room 117

Contributed Paper Session

MathArt: Classic and Novel Intersections of Mathematics and the Arts
2:00 p.m. - 5:55 p.m., Room 120

Workshop

Using Desmos to Facilitate Discussion in a Freshman STEM-Major Course
2:00 p.m. - 3:20 p.m., Room 103/104

MAA Pavilion Event

Prizes and Awards Meet & Greet
2:00 p.m. - 3:00 p.m., Exhibit Hall

Town Hall

Just Mathematics: Creating Connections between Mathematics Content Areas & Social Justice
2:30 p.m. - 3:20 p.m., Room 122/123

FRIDAY SCHEDULE, AUGUST 4

MAA Pavilion Event

Play Backgammon!
2:30 p.m. - 4:30 p.m., Exhibit Hall

Alder Award Session

3:00 p.m. - 4:20 p.m., Ballroom B & C

MAA Invited Paper Session

Recent Advances in Mathematical and Computational Biology, Highlighting Contributions from Undergraduate Researchers
3:00 p.m. - 5:50 p.m., Room 118/119

Minicourse

The *i* Road to Upper-Level Undergraduate Mathematics, Part B
3:00 p.m. - 5:00 p.m., Room 105

Minicourse

An Introduction to the Scholarship of Teaching and Learning, Part B
3:00 p.m. - 5:00 p.m., Room 107

Minicourse

Supporting Active Learning with Technology, Part B
3:00 p.m. - 5:00 p.m., Room 108/109

Poster Session

PosterFest 2023: Scholarship by Early Career Mathematicians
3:15 p.m. - 4:45 p.m., Exhibit Hall

Panel

Incorporating an Undergraduate Research Component into Various Classroom Environments
3:30 p.m. - 4:50 p.m., Room 122/123

Workshop

Beyond a First-Year Teaching Seminar: Developing Multiple Professional Development Touchpoints for your Graduate Students
3:30 p.m. - 4:50 p.m., Room 103/104

FRIDAY SCHEDULE, AUGUST 4

MAA Pavilion Event

Celebrating 20 Years of NREUP!
3:30 p.m. - 5:00 p.m., Exhibit Hall

AMS-MAA Invited Paper Session

Mathematics is Not Done in a Vacuum: Collaborations in Mathematics and History of Mathematics
4:00 p.m. - 5:50 p.m., Ballroom A

SIGMAA Activity

SIGMAA on Undergraduate Research (SIGMAA UR) Business Meeting and Guest Lecture
5:00 p.m. - 6:30 p.m., Room 122/123

SIGMAA Activity

SIGMAA on the History of Mathematics (SIGMAA HOM) Business Meeting and Invited Lecture
6:00 p.m. - 7:30 p.m., Ballroom A

SIGMAA Activity

SIGMAA on Environmental Mathematics (SIGMAA EM) Business Meeting and Guest Lecture
6:00 p.m. - 7:30 p.m., Room 118/119

SIGMAA Activity

SIGMAA On Statistics and Data Science Education (SDS-Ed) Business Meeting
6:00 p.m. - 7:30 p.m., Room 117

Social Event

Student Dessert Reception
8:00 p.m. - 10:00 p.m., Ballroom D

Social Event

Project NExT Reception and Celebration of David Kung
8:30 p.m. - 10:30 p.m., Ballroom B/C

SATURDAY SCHEDULE, AUGUST 5

Registration

7:30 a.m. - 1:00 p.m., West Hall Registration

Invited Paper Session organized by the Leitzel Lecturer

Building STEM Success From K-12 Through College

8:00 a.m. - 11:20 a.m., Ballroom A

Contributed Paper Session

Mathematics and Sports

8:00 a.m. - 10:15 a.m., Room 118/119

Contributed Paper Session

Implementing Corequisite Education, Part B

8:00 a.m. - 9:15 a.m., Room 107

Contributed Paper Session

Mathematical Experiences and Projects in Business, Industry, and Government

8:00 a.m. - 10:35 a.m., Room 117

Contributed Paper Session

Problem Creation and Problem Solving

8:00 a.m. - 11:55 a.m., Room 120

Contributed Paper Session

My Favorite Adapted Math Circle Topic

8:00 a.m. - 10:55 p.m., Room 121

Workshop

So You Want To Bring Joyful Math To Your Community? Here's How!

8:00 a.m. - 9:20 a.m., Room 103/104

Town Hall

What is a History of Mathematics Course For?

8:00 a.m. - 8:50 a.m., Room 122/123

SATURDAY SCHEDULE, AUGUST 5

Minicourse

The Who, Why, and How of Undergraduate Research in Math, Part B
8:00 a.m. - 10:00 a.m., Room 108/109

Competitions Session

K-12 Student Lounge with Math Community Partners
8:30 a.m. - 4:30 p.m., Ballroom D

Christine Darden Lecture

Ricardo Cortez, *Tulane University*

The Many Roles of Mathematical Modeling
9:00 a.m. - 9:50 a.m., Ballroom B/C

Panel

The Convergence of History and Pedagogy in Mathematics
9:00 a.m. - 10:20 a.m., Room 122/123

Workshop

Fun with Functions: Student explorations with functions in Precalculus, Calculus and Introduction to Proofs
9:30 a.m. - 10:50 a.m., Room 103/104

MAA President Retiring Address

Jennifer Quinn, *University of Washington Tacoma*

Lessons that Really Count
10:00 a.m. - 10:50 a.m., Ballroom B/C

Minicourse

How to Write an Excellent Expository Article in Mathematics, Part B
10:00 a.m. - 12:00 p.m., Room 107

Minicourse

An Introduction to Becoming a Math JEDI (Justice, Equity, Diversity, and Inclusion), Part B
10:00 a.m. - 12:00 p.m., Room 105

SATURDAY SCHEDULE, AUGUST 5

Minicourse

Jumpstarting Your Scholarship, Part B
10:00 a.m. - 12:00 p.m., Room 108/109

Panel

Elevating Calculus for A New-ish Century
10:30 a.m. - 11:50 a.m., Room 122/123

Contributed Paper Session

Internships for Math Majors
10:40 a.m. - 11:15 a.m., Room 117

NAM David Harold Blackwell Lecture

Ron Buckmire, *Occidental College*

Different Differences
11:00 a.m. - 11:50 a.m., Ballroom B/C

Other Mathematical Session

Competitive Math Problems for Everyone
11:00 a.m. - 12:00 p.m., Room 103/104

Competitions Session

"The Curious Cube" AMC Podcast Live Recording
12:00 p.m. - 1:00 p.m., Room 118/119

Invited Address

Student Activity Speaker
Kevin Knudson, *University of Florida*

Five Platonic Friends
1:00 p.m. - 1:50 p.m., Ballroom A

Contributed Paper Session

Incorporating Alternative Forms of Assessment into Undergraduate Mathematics Classes, Part B
1:00 p.m. - 5:35 p.m., Room 121

SATURDAY SCHEDULE, AUGUST 5

MAA Business Meeting

1:00 p.m. - 2:00 p.m., Ballroom B/C

Martin Gardner Lecture

Susan Goldstine, *St. Mary's College of Maryland*

Maps of Strange Worlds: Adventures in Topological Art

2:00 p.m. - 2:50 p.m., Ballroom B/C

AWM-MAA Invited Paper Session

Geometric Measure Theory, Harmonic Analysis, and Partial Differential Equations

2:00 p.m. - 5:50 p.m., Room 118/119

Contributed Paper Session

Inquiry-Based Learning, Part B

2:00 p.m. - 5:15 p.m., Room 115/116

Contributed Paper Session

Recreational Mathematics: Puzzles, Card Tricks, Games, and Gambling

3:00 p.m. - 5:55 p.m., Room 120

Panel

Career Paths in Business, Industry, and Government

3:00 p.m. - 4:20 p.m., Room 122/123

Deborah and Franklin Tepper Haimo Awards

3:00 p.m - 4:20 p.m., Ballroom B & C

Read the Masters!: Cauchy's Limits

3:00 p.m. - 5:00 p.m., Room 103/104

SATURDAY SCHEDULE, AUGUST 5

Competitions Session

Journey to the IMO/EGMO
3:30 p.m. - 4:30 p.m., Room 108/109

MAA Invited Paper Session

The Mathematics of Data Science
3:30 p.m. - 5:50 p.m., Ballroom A

Competitions Session

Power Up! *Co-sponsored by Citadel | Citadel Securities*
4:30 p.m. - 5:30 p.m., Room 122/123

Competitions Session

Mathematical Olympiad Awards Ceremony
5:30 p.m. - 7:30 p.m., Ballroom B/C

MAA MATHFEST

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