MAA MATHFEST

2022 | PHILADELPHIA, PA

#MAAthFest

Taylor & Francis Celebrates

Our Shining Star Authors Speaking at #MathFest

CHRISTOPHER C JETT

"Third Floor Respect": A Black Masculinist Examination of Morehouse College's Mathematics Learning Community
The Journal of Higher Education • Vol 93 • No 2 (tandfonline.com)

"I have the highest GPA, but I can't be the valedictorian?": two Black males' exclusionary valedictory experiences
Race Ethnicity and Education • Vol 25 • No 2 (tandfonline.com)

The Qualms and Quarrels with Online Undergraduate Mathematics: The Experiences of African American Male STEM Majors
Investigations in Mathematics Learning • Vol 13 • No 1 (tandfonline.com)

STEVE STROGATZ

Love Affairs and Differential Equations
Mathematics Magazine • Vol 61 • No 1 (tandfonline.com)

The Birth of Period Three
Mathematics Magazine • Vol 68 • No 1 (tandfonline.com)

Chaotic Mappings and Probability Distributions
The College Mathematics Journal • Vol 22 • No 1 (tandfonline.com)

ALLISON HENRICH

Veronika Irvine: The Art and Mathematics of Making Bobbin Lace
Mathematics Magazine • Vol 91 • No 4 (tandfonline.com)

John Edmark: Art in Motion
Mathematics Magazine • Vol 94 • No 1 (tandfonline.com)

Henry Segerman: Visualizing Topology
Mathematics Magazine • Vol 93 • No 4 (tandfonline.com)

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WELCOME TO MAA MATHFEST 2022!

Welcome to Philadelphia, the City of Brotherly Love, and the first in-person MAA MathFest since 2019! We missed you dearly.

To make the most of this meeting, I encourage you to step outside your mathematical specialty and soak in new ideas. You do not have to be an applied mathematician to enjoy Suzanne Lenhart's Hedrick Lectures modeling environmental and health connections or Suzanne Weekes' Falconer Lecture considering wave propagation across interesting interfaces. Algebraists and non-algebraists alike will appreciate the noncommutative insights of Manuel Reyes or the parking function adventures from Pamela Harris.

All twelve of our invited speakers were chosen for their high-quality exposition. I am continually surprised by the unexpected connections I make when I attend invited lectures with an open mind and a joyful appreciation of mathematical ideas. Plus, this year's lineup of speakers is incredible.

I've attended MAA MathFest for more than twenty years and I'll share some of my tried and true recommendations on how to best experience the meeting with you:

- Take some time to wander the Exhibit Hall. You never know what you might find—maybe a new book or an old friend. The opening reception is Wednesday from 6-9 pm.
- Look to the MAA Pavilion for events and social activities throughout. Be sure to visit early because the Exhibit Hall closes Friday evening.
- Join me Friday from 7-8 pm for a new event, the President's Ignite Celebration. It will be a time to celebrate MAA, its members, and their achievements. There will be a series of 5-minute presentations that promise to be enlightening and entertaining.
- Afterwards, you can head over to the MAA Ice Cream Social and celebrate the student poster presenters.

All of the details for these events and more can be found in the chronological schedule in this program book.

As with many MAA MathFests, there are so many wonderful options that choosing what to participate in might be the hardest decision of your day. Panels, posters, town halls, minicourses, invited addresses, invited paper sessions, contributed paper sessions—surely there is something for everyone.

We've used our learnings from last year's first fully-virtual MAA MathFest to offer a hybrid experience for people who would like to join us in Philadelphia or online at home. We're excited to host you and have folks join from across the world.

What makes MAA MathFests most memorable for me are the people—checking in with old friends and making new ones. While we've been able to keep our community connected during this time of physical separation, it's a delight to be able to gather together again. You are the heart and soul of the MAA and I'm overjoyed to welcome you to MAA MathFest 2022.

Enjoy!
Jennifer Quinn
PRESIDENT, MATHEMATICAL ASSOCATION OF AMERICA

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INVITED ADDRESSES

MAA EARLE RAYMOND HEDRICK LECTURE SERIES

Suzanne Lenhart, *University of Tennessee*

Lecture I - One Health and Modeling: Connecting Humans, Animals, and the Environment
Thursday, August 4, 11:00 am - 11:50 am, Salon GH

Lecture II - From Calculus to Optimal Control: Optimization for Sustainable Fishery Harvest
Friday, August 5, 10:00 am - 10:50 am, Salon GH

AMS-MAA JOINT INVITED ADDRESS

Manuel Reyes, *University of California, Irvine*

How Noncommutative Algebra Points toward Quantum Geometry
Thursday, August 4, 10:00 am - 10:50 am, Salon GH

MAA INVITED ADDRESS

Chris Jett, *University of West Georgia*

Empowering Black Male Students in Mathematics Contexts: Insights from a Critical Race Scholar
Thursday, August 4, 9:00 am - 9:50 am, Salon GH

MAA INVITED ADDRESS

Steve Strogatz, *Cornell University and National Museum of Mathematics (MoMath)*

Synchronization in Nature
Friday, August 5, 11:00 am - 11:50 am, Salon GH

INVITED ADDRESSES

MAA INVITED ADDRESS

Karen Marrongelle, *National Science Foundation*

Teaching Mathematics for the Future: Centering Student Thinking to Diversify STEM
Saturday, August 6, 11:00 am - 11:50 am, Salon GH

MAA JAMES R.C. LEITZEL LECTURE

Pamela Harris, *Williams College*

Parking Functions: Choose Your Own Adventure
Friday, August 5, 9:00 am - 9:50 am, Salon GH

AWM-MAA ETTA ZUBER FALCONER LECTURE

Suzanne Weekes, *Executive Director of the Society for Industrial and Applied Mathematics (SIAM)*

Continuity at Interfaces
Thursday, August 4, 2:00 pm - 2:50 pm, Salon GH

CHAN STANEK LECTURE FOR STUDENTS

Jeanette Shakalli, *Panamanian Foundation for the Promotion of MathematicS*

FUNDAPROMAT: My Story
Thurdsay, August 4, 1:00 pm - 1:50 pm, Salon GH

CHRISTINE DARDEN LECTURE

Marissa Kawehi Loving, *University of Wisconsin-Madison*

Determining Metrics Using Lengths of Curves
Saturday, August 6, 9:00 am - 9:50 am, Salon GH

INVITED ADDRESSES

MARTIN GARDNER LECTURE

Jason Rosenhouse, *James Madison University*

The History and Future of Logic Puzzles
Saturday, August 6, 2:00 pm - 2:50 pm, Salon GH

NAM DAVID HAROLD BLACKWELL LECTURE

Tai-Danae Bradley, *SandboxAQ*

When Information Theory Meets Algebra and Topology
Friday, August 5, 2:00 pm - 2:50 pm, Salon GH

STUDENT ACTIVITY SPEAKER

Allison Henrich, *Seattle University*

How to Turn Your Knots from Blah into Fabulous
Friday, August 5, 1:00 pm - 1:50 pm, Salon GH

MAA PAVILION EVENTS

Events will be held in the MAA MathFest Exhibit Hall specifically in the MAA Pavilion, booths: 412 - 417 and 514 - 518

World Premiere of the 2022 MAA Award Winner Video and Champagne Toast

Wednesday, 6:30 pm - 7:30 pm

Host: Jenny Quinn, *MAA President, University of Washington, Tacom*a

Kick off MAA MathFest and celebrate the 2022 MAA Award winners in writing, research, teaching, and service. The video premiere will highlight the mathematicians leading the way in communication, community, inclusivity, and teaching & learning.

*MAA Writing Award Winners Prize Session

Thursday, 12:00 pm - 1:00 pm

Host: Jenny Quinn, *MAA President, University of Washington, Tacoma*

The MAA Prize Winners will be celebrated throughout MAA MathFest. We invite everyone to join us and congratulate the winners of the Allendoerfer, Evans, Halmos-Ford, Pólya, Solow, Beckenbach, Chauvenet, and Euler Awards.

MAA Backgammon Game Hour

Thursday, 1:30 pm - 3:00 pm

Host: Michael Pearson, *Executive Director, Mathematical Association of America*

Join us for a round of 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! We'll have folks on hand to get newcomers to backgammon started. Stop by to join the fun!

*Mathematicians and Data Science

Thursday, 2:00 pm - 3:00 pm

Hosts: Rick Cleary, *Babson College, and* **Carol Baxter,** *Mathematical Association of America*

The MAA is working on several fronts to help mathematicians shape their curriculum to encourage students in data science. One exciting initiative is a planned MAA journal devoted to this emerging field. Rick Cleary (Babson College), Carol Baxter (MAA Senior Director of Publications), and other members of the community will be on hand to meet with those who would like to learn more, and become involved in the project, and discuss the math/data interface with colleagues.

What's new in WeBWorK 2.17?

Thursday, 2:00 pm - 3:00 pm

Host: Monica VanDieren, *Robert Morris University, and The WeBWorK Project*

Attend this session to get your questions answered and learn more about the new features in WeBWorK version 2.17.

MAA PAVILION EVENTS

***MAA Service, Teaching, and Research Award Winners Prize Session**
Friday, 12:00 pm - 1:00 pm

Host: Jenny Quinn, *MAA President, University of Washington, Tacoma*

The MAA Prize Winners will be celebrated throughout MAA MathFest. We invite you to join us and congratulate the winners of the MAA Award for Inclusivity, Meritorious Service, Gung and Hu, Alder, Dolciani, Haimo, and Selden Awards. The second in a series of activities to celebrate and recognize the people that bring their wits, strength, and love to help the MAA community flourish.

MAA Backgammon Game Hour
Friday, 1:30 pm - 3:00 pm

Host: Michael Pearson, *Executive Director, Mathematical Association of America*

Join us for a round of 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! We'll have folks on hand to get newcomers to backgammon started. Stop by to join the fun!

***BIG Career Interview Card Game**
Friday, 3:00 pm - 4:00 pm

Host: Grace Murrin, *Mathematical Association of America and* **Martina Freed***, Mathematical Association of America*

Come check out MAA's new card game that makes interviewing for a new career fun and informative! This card game was created specifically for students who are studying mathematics and ready to enter the career field.

Playing the card game will prepare you for answering those tough interview questions, share various job opportunities for those who study mathematics, and offer insight on guidelines set by the US Equal Employment Opportunitiy Commission.

*Light refreshments will be served.

Additional MAA Pavilion events include:

MAA MathFest crossword puzzle
Complete the puzzle for a chance to win an Amazon Gift Card.

MAA Grant Opportunities
Every fall, MAA Programs releases its Call For Proposals for math outreach programs. Check out our Tensor and Dolciani Mathematics Enrichment Grants programs for opportunities to submit a proposal.

New OPEN Math Program!
This joint project with CU-Boulder has $2.75M in funding from NSF. It will support more than 40 online professional development workshops throughout the next 4 years. Be on the lookout for future opportunities to participate!

MAA PAVILION EVENTS

Distinguished Lecture Series
MAA has relaunched its Distinguished Lecture Series, now in a virtual format! Sign up for event email reminders!

Member Recognition.
Come celebrate your 25 or 50-year milestone with a special member lapel pin. Not a long-term member? We still want to celebrate you with a ribbon for your MAA Section and/or SIGMAA.

MAA American Mathematics Competitions Daily Challenge.
The MAA AMC team is back to challenge you with sample competition problems. There will be a new problem each day. Join the challenge for a chance to win one of our daily prizes.

Popcorn and a Movie.
Join us in the MAA Pavilion Friday afternoon for some popcorn and catch the short virtual tour we made about our historic headquarters in Washington, D.C.

What else can you look forward to?
- MAA MathFest Crossword Puzzle
- Lots of Prizes and Candy
- Membership Renewals
- Not a Member? Try our raffle for a chance to win a complimentary MAA membership!
- …And much more!

Don't forget to tag us with your fun photos @maanow #MAAthFest

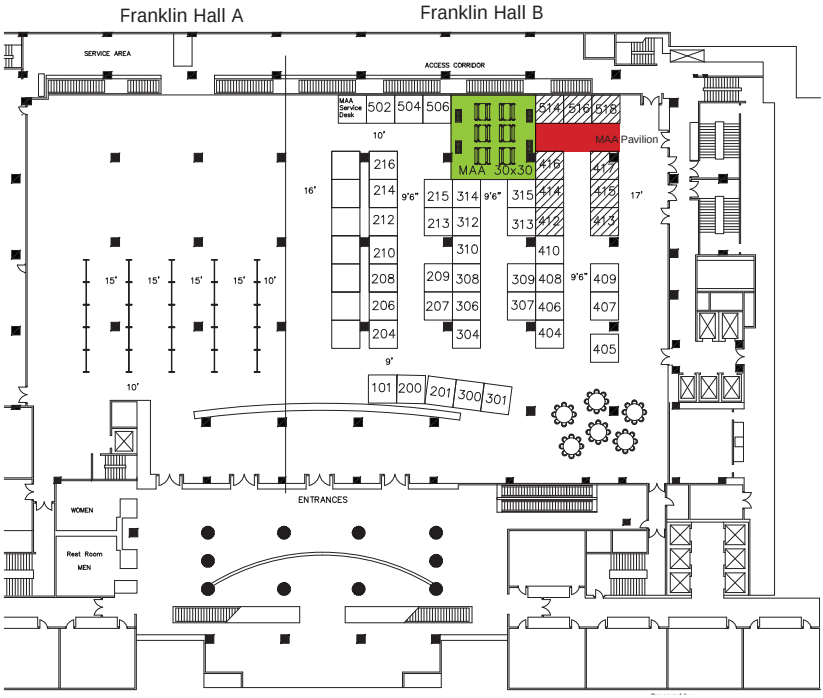
EXHIBITORS AND SPONSORS

Aktiv Mathematics (Booth 209)
American Institute of Mathematics (Booth 315)
American Mathematical Association of Two-Year Colleges (Booth 314)
American Mathematical Society* (Booth 301)
Association for Women in Mathematics (Booth 410)
Budapest Semesters in Mathematics Education (Booth 408)
Cambridge University Press (Booth 404)
Crowdmark (Booth 206)
DigitalEd (Booth 504)
Drexel University Department of Mathematics**
Edufide Inc (Booth 313)
Hawkes Learning (Booth 307)
Macmillan Learning (Booth 304)
Maplesoft (Booth 405)
Mathematical Association of America /MAA Pavilion (Booth 412)
MIT Press (Booth 306)
National Security Agency (Booth 308)
Pearson (Booth 406)
Princeton University Press (Booth 207)
Society for Industrial and Applied Mathematics (Booth 310)
STEMFLAG (Booth 312)
Taylor & Francis Group**
World Scientific Publishing (Booth 204)
XYZ Homework* (Booth 407)
Zim Olson & Zim Mathematics (Booth 215)

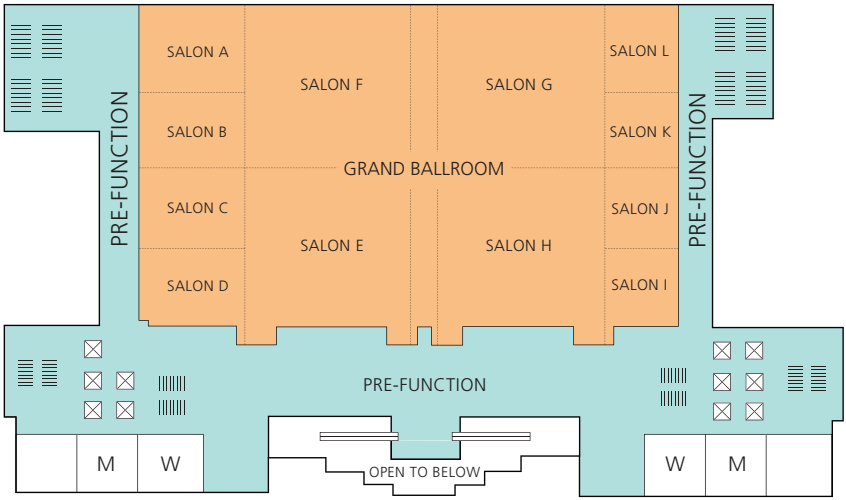
*Exhibitor/Sponsor
**Sponsor Only

MAA MATHFEST MAP

EXHIBIT HALL



CONFERENCE MAP



CHRONOLOGICAL SCHEDULE | WEDNESDAY

WEDNESDAY SCHEDULE, AUGUST 3

Committee Meeting

MAA Congress Meeting
8:30 am - 5:00 pm, Salon A

Registration & Information
4:00 pm - 8:00 pm, Registration Desk 2 (Grand Ballroom Lobby)

Other Mathematical Session

Math Jeopardy
5:00 pm - 5:45 pm, Salon D

Social Event

Exhibit Hall & Grand Opening Reception
6:00 pm - 9:00 pm, Franklin Hall B

CHRONOLOGICAL SCHEDULE | THURSDAY

THURSDAY SCHEDULE, AUGUST 4

Registration & Information

7:30 am - 6:00 pm, Registration Desk 2 (Grand Ballroom Lobby)

Invited Paper Session

Trends in Mathematical and Computational Biology

8:00 am - 10:50 am, Salon B

Contributed Paper Session

Share the Joy in Teaching Differential Equations Through Modeling, Part A

8:00 am - 10:55 am, Salon D

Sponsor:
Systemic Initiative for Modeling Investigations & Opportunities with Differential Equations (SIMIODE)

Contributed Paper Session

Inquiry-Based Learning

8:00 am - 10:20 am, Salon I

Sponsor:
SIGMAA on Inquiry-Based Learning (IBL-SIGMAA)

Contributed Paper Session

The Impact of Interdisciplinary Collaborations: Lessons from SUMMIT-P and Other Projects

8:00 am - 10:55 am, Salon J

Sponsors:
Math Across the Disciplines (MAD) and Curriculum Renewal Across the First Two Years (CRAFTY), Subcommittees of the Committee on Undergraduate Programs in Mathematics (CUPM)

Town Hall

Practicing with the Instructional Practices Guide

8:30 am - 9:20 am, Salon C

Sponsor:
MAA Committee on Teaching Undergraduate Mathematics & Innovative Practice Guide Task Force (CTUM & IP)

CHRONOLOGICAL SCHEDULE | THURSDAY

THURSDAY SCHEDULE, AUGUST 4

Invited Address

MAA Invited Address
Chris Jett, *University of West Georgia*

Empowering Black Male Students in Mathematics Contexts: Insights from a Critical Race Scholar
9:00 am - 9:50 am, Salon GH

Contributed Paper Session

Data for Good: Bringing Social and Professional Responsibility into the Statistics Classroom
9:00 am - 10:55 am, Salon F

Sponsor:
SIGMAA on Statistics and Data Science Education (SDS-ED-SIGMAA)

Poster Session

Outreach Poster Session
9:00 am - 10:20 am, Franklin Hall A

Poster Session

Poster Session for Projects Supported by the NSF Division of Undergraduate Education
9:00 am - 10:20 am, Franklin Hall A

Minicourse

Utilizing StatPREP's Free Little Apps to Teach Data-Centric Statistics, Part A
9:00 am - 10:50 am, Salon K

Minicourse

Visualizing Projective Geometry Through Photographs and Perspective Drawings, Part A
9:00 am - 10:50 am, Salon L

Exhibit Hall
9:00 am - 5:00 pm, Franklin Hall B

CHRONOLOGICAL SCHEDULE | THURSDAY

THURSDAY SCHEDULE, AUGUST 4

Panel

The Math Alliance: Building a New American Community in the Quantitative Sciences
9:30 am - 10:50 am, Salon A

Workshop

New Images of Online Math Instruction: Transitioning Research-Based Curricula into Online Environments
9:30 am - 10:50 am, Salon C

Invited Address

AMS-MAA Joint Invited Address
Manuel Reyes, *University of California, Irvine*

How Noncommutative Algebra Points toward Quantum Geometry
10:00 am - 10:50 am, Salon GH

Invited Address

MAA Earle Raymond Hedrick Lecture Series
Suzanne Lenhart, *University of Tennessee*

Lecture I - One Health and Modeling: Connecting Humans, Animals, and the Environment
11:00 am - 11:50 am, Salon GH

Invited Address

Chan Stanek Lecture for Students
Jeanette Shakalli, *Panamanian Foundation for the Promotion of Mathematics*

FUNDAPROMAT: My Story
1:00 pm - 1:50 pm, Salon GH

Invited Paper Session

Rethinking Number Theory
1:00 pm - 3:50 pm, Salon B

CHRONOLOGICAL SCHEDULE | THURSDAY

THURSDAY SCHEDULE, AUGUST 4

Contributed Paper Session

MAA Session on Mathematical Experiences and Projects in Business, Industry, and Government (BIG)

1:00 pm - 4:20 pm, Salon E

Sponsor:
SIGMAA on Business, Industry, and Government (BIG SIGMAA)

Contributed Paper Session

Quantitative Literacy and Reasoning as Tools for Learning Across the Disciplines

1:00 pm - 4:40 pm, Salon F

Sponsor:
SIGMAA on Quantitative Literacy (QL-SIGMAA)

Contributed Paper Session

Mathematics and the Life Sciences: Initiatives, Programs, Curricula

1:00 pm - 1:55 pm, Salon J

Sponsor:
SIGMAA on Mathematical and Computational Biology (SIGMAA-BIO)

Contributed Paper Session

Pursuing Justice in and through Mathematics

1:00 pm - 5:20 pm, Salon D

Sponsor:
Association for Women in Mathematics (AWM)

Poster Session

PosterFest 2022: Scholarship by Early Career Mathematicians

1:00 pm - 2:20 pm, Franklin Hall A

Sponsor:
MAA Committee on Early Career Mathematicians

Workshop

Building a Scholarly Mathematics Teaching and Learning Community

1:00 pm - 2:20 pm, Salon C

CHRONOLOGICAL SCHEDULE | THURSDAY

THURSDAY SCHEDULE, AUGUST 4

Minicourse

Teaching Mathematics Through the Lens of Social Justice, Part A
1:00 pm - 2:50 pm, Salon K

Minicourse

A Complex Transition to Advanced Undergraduate Mathematics, Part A
1:00 pm - 2:50 pm, Salon L

Invited Address

AWM-MAA Etta Zuber Falconer Lecture
Suzanne Weekes, Executive Director of the Society for Industrial and Applied Mathematics (SIAM)

Continuity at Interfaces
2:00 pm - 2:50 pm, Salon GH

Panel

Creating Systemic Transformation in Higher Education to Achieve Equity
2:30 pm - 3:50 pm, Salon A

Workshop

Learning from History: Teaching with Primary Source Projects in Your Mathematics Classroom
2:30 pm - 3:50 pm, Salon C

Sponsor:
SIGMAA on the History of Mathematics (HOM SIGMAA)

Minicourse

Re-imaging the Mathematics Curriculum in the First Two Years in Collaboration with Partner Disciplines -- the SUMMIT-P Model, Part A
3:00 pm - 4:50 pm, Salon K

Minicourse

Developing an Authentic Research Experience in your Undergraduate Courses, Part A
3:00 pm - 4:50 pm, Salon L

CHRONOLOGICAL SCHEDULE | THURSDAY

THURSDAY SCHEDULE, AUGUST 4

Other Mathematical Session

Deborah and Franklin Tepper Haimo Awards
3:00 pm - 4:20 pm, Salon GH

Workshop

Innovations and Inspirations In Math Teaching: The Rosenthal Prize
4:00 pm - 5:20 pm, Salon C

Other Mathematical Session

Estimathon!
4:00 pm - 5:45 pm, Salon D

SIGMAA Activity

SIGMAA on Business, Industry, and Government (BIG SIGMAA) Business Meeting and Guest Lecture
5:00 pm - 6:50 pm, Salon E

Bats, Random Time Series, Nonlinear Transforms, and Moving Autonomy into the Great Outdoors
Speaker:
Rolf Muelle, *Virginia Tech*

SIGMAA Activity

SIGMAA on Mathematical and Computational Biology (BIO SIGMAA) Business Meeting and Guest Lecture
5:00 pm - 6:50 pm, Salon J

A Tale of Many Hormones: Mathematical Modeling in Ovulation
Speaker:
Erica Graham, *Bryn Mawr College*

THURSDAY SCHEDULE, AUGUST 4

SIGMAA Activity

SIGMAA on the History of Mathematics (HOM SIGMAA) Business Meeting and Guest Lecture
5:00 pm - 6:50 pm, Salon I

Singing Along with Math: The Mathematical Work of the Opera Singer Jerome Hines
Speaker:
T. Christine Stevens, Saint Louis University

SIGMAA Activity

SIGMAA on Quantitative Literacy (SIGMAA QL) Business Meeting
5:00 pm - 6:00 pm, Salon B

SIGMAA Activity

SIGMAA for Statistics and Data Science Education (SIGMAA SDS-ED) Business Meeeting
5:00 pm - 5:50 pm, Salon F

CHRONOLOGICAL SCHEDULE | FRIDAY

FRIDAY SCHEDULE, AUGUST 5

Registration & Information

7:30 am - 6:00 pm, Registration Desk 2 (Grand Ballroom Lobby)

Invited Paper Session

Current Research in Math Biology

8:00 am - 10:50 am, Salon B

Contributed Paper Session

Innovative Ideas in Teaching Mathematics - Lessons from the Pandemic and its Aftermath, Part A

8:00 am - 11:55 am, Salon I

Sponsor:
MAA Subcommittee on Curriculum Renewal and the First Two Years (CRAFTY)

Contributed Paper Session

Math and Art

8:00 am - 11:40 am, Salon F

Sponsor:
SIGMAA on Mathematics and the Arts (SIGMAA-ARTS)

Contributed Paper Session

Integrating Math Modeling and Interdisciplinarity into Your Classroom, Part A

8:00 am - 10:55 am, Conf. Room 410

Sponsor:
Consortium for Mathematics and Its Applications (COMAP)

Contributed Paper Session

Research in Undergraduate Mathematics Education, Part A

8:20 am - 11:55 am, Salon J

Sponsor:
SIGMAA on Research in Undergraduate Mathematics Education (RUME-SIGMAA)

CHRONOLOGICAL SCHEDULE | FRIDAY

FRIDAY SCHEDULE, AUGUST 5

Invited Address

MAA James R.C. Leitzel Lecture
Pamela Harris, *Williams College*

Parking Functions: Choose Your Own Adventure
9:00 am - 9:50 am, Salon GH

Contributed Paper Session

Share the Joy in Teaching Differential Equations Through Modeling, Part B
9:00 am - 11:20 am, Salon D

Sponsor:
Systemic Initiative for Modeling Investigations & Opportunities with Differential Equations (SIMIODE)

Contributed Paper Session

Complex Analysis: History, Pedagogy, Innovation, and Research
9:00 am - 11:20 am, Salon E

Panel

The Art of Publishing in MAA Journals
9:00 am - 10:20 am, Salon A

Poster Session

Research in Motion (Undergraduate Student Poster Session)
9:00 am - 10:20 am, Franklin Hall A

Sponsor:
Committee on Undergraduate Student Programming (CUSP)

Workshop

Cultural Competency: Providing Equitable Math Instruction through Cultural Relevance
9:00 am - 10:20 am, Salon C

Exhibit Hall
9:00 am - 5:00 pm, Exhibit Hall B

CHRONOLOGICAL SCHEDULE | FRIDAY

FRIDAY SCHEDULE, AUGUST 5

Invited Address

MAA Earle Raymond Hedrick Lecture Series
Suzanne Lenhart, *University of Tennessee*

Lecture II - From Calculus to Optimal Control: Optimization for Sustainable Fishery Harvest
10:00 am - 10:50 am, Salon GH

Minicourse

Utilizing StatPREP's Free Little Apps to Teach Data-Centric Statistics, Part B
10:00 am - 11:50 am, Salon K

Minicourse

Visualizing Projective Geometry Through Photographs and Perspective Drawings, Part B
10:00 am - 11:50 am, Salon L

Panel

Online Workshops OPEN Opportunities for Teaching-Focused Professional Development
10:30 am - 11:50 am, Salon A

Workshop

Calculus, a Stimulating Journey on a Road of Discovery
10:30 am - 11:50 am, Salon C

Invited Address

MAA Invited Address
Steve Strogatz, *Cornell University and National Museum of Mathematics (MoMath)*

Synchronization in Nature
11:00 am - 11:50 am, Salon GH

CHRONOLOGICAL SCHEDULE | FRIDAY

FRIDAY SCHEDULE, AUGUST 5

Invited Address

Student Activity Speaker
Allison Henrich, *Seattle University*

How to Turn Your Knots from Blah into Fabulous
1:00 pm - 1:50 pm, Salon GH

Contributed Paper Session

Logic and Intuition in Everyday Mathematics
1:00 pm - 2:55 pm, Salon I

Sponsor:
SIGMAA on Philosophy of Mathematics (POM SIGMAA)

Contributed Paper Session

Research in Undergraduate Mathematics Education, Part B
1:00 pm - 2:40 pm, Salon J

Sponsor:
SIGMAA on Research in Undergraduate Mathematics Education (RUME-SIGMAA)

Contributed Paper Session

Inviting High School Students to Explore Advanced Mathematics
1:00 pm - 3:55 pm, Salon E

Sponsor:
SIGMAA on Teaching Advanced High School Mathematics (TAHSM-SIGMAA)

Contributed Paper Session

Mathematics and Sports
1:00 pm - 3:40 pm, Salon F

Sponsor:
SIGMAA on Sports and Mathematics (Sports SIGMAA)

Contributed Paper Session

Coding Theory and its Applications
1:00 pm - 2:20 pm, Salon D

CHRONOLOGICAL SCHEDULE | FRIDAY

FRIDAY SCHEDULE, AUGUST 5

Contributed Paper Session

Math Circles: Talks about Mathematical Joy, Inspirations, Data-Driven Lessons Learned, Part A

1:00 pm - 2:55 pm, Conf. Room 410

Sponsor:
SIGMAA on Math Circles for Students and Teachers (SIGMAA-MCST)

Panel

Adopting, Implementing, Scaling and Sustaining a Research-Based Curriculum and Professional Development Innovation in Undergraduate Mathematics

1:00 pm - 2:20 pm, Salon A

Poster Session

MAA Contributed Poster Session

1:00 pm - 3:00 pm, Franklin Hall A

Workshop

Introducing COMAP's Certificate in Modeling (CiM) Program

1:00 pm - 2:20 pm, Salon C

Sponsor:
Consortium for Mathematics and Its Applications (COMAP)

Minicourse

Teaching Mathematics Through the Lens of Social Justice, Part B

1:00 pm - 2:50 pm, Salon K

Minicourse

A Complex Transition to Advanced Undergraduate Mathematics, Part B

1:00 pm - 2:50 pm, Salon L

Commercial Presentation

Introducing Aktiv Mathematics: Lower Anxiety and Increase Student Engagement

1:30 pm - 3:00 pm, Conference Room 411

CHRONOLOGICAL SCHEDULE | FRIDAY

FRIDAY SCHEDULE, AUGUST 5

Invited Address

NAM David Harold Blackwell Lecture
Tai-Danae Bradley, *SandboxAQ*

When Information Theory Meets Algebra and Topology
2:00 pm - 2:50 pm, Salon GH

Panel

Alternative Post-Secondary Mathematics Pathways
Friday, August 5, 2:30 pm - 3:50 pm, Salon A

Sponsor:
Association for Women in Mathematics (AWM)

Workshop

Using Excel to Make Service Courses More Effective
2:30 pm - 3:50 pm, Salon C

Invited Paper Session

Recent Advances in Harmonic Analysis and Partial Differential Equations
3:00 pm - 5:50 pm, Salon B

Minicourse

Re-imaging the Mathematics Curriculum in the First Two Years in Collaboration with Partner Disciplines -- the SUMMIT-P Model, Part B
3:00 pm - 4:50 pm, Salon K

Minicourse

Developing an Authentic Research Experience in your Undergraduate Courses, Part B
3:00 pm - 4:50 pm, Salon L

Other Mathematical Session

Alder Award Session
2:30 pm - 3:50 pm, Salon GH

CHRONOLOGICAL SCHEDULE | FRIDAY

FRIDAY SCHEDULE, AUGUST 5

Panel

Commercial Presentation

Introducing Aktiv Mathematics:
Lower Anxiety and Increase Student Engagement
3:30 pm - 5:00 pm, Conference Room 411

National Science Foundation Graduate Research Fellowship Program
4:00 pm - 5:20 pm, Salon A

Workshop

Designing and Developing a Successful Online Math Course
4:00 pm - 5:20 pm, Salon C

SIGMAA Activity

SIGMAA on Mathematical Knowledge for Teaching (SIGMAA-MKT) Connector
5:00 pm - 5:50 pm, Salon J

SIGMAA Activity

SIGMAA on the Philosophy of Mathematics (POM SIGMAA) Reception and Guest Lecture
5:00 pm - 6:30 pm, Salon I
Speaker:
Yale Weiss, *Co-Director of the Saul Kripke Center, City University of New York (CUNY), The Graduate Center*

Logic in the Integers

SIGMAA Activity

SIGMAA on Mathematics and Sports (SIGMAA SPORTS) Business Meeting and Guest Lecture
5:00 pm - 6:30 pm, Salon F

Quantifying Hitter Plate Discipline in Major League Baseball
Speaker:
Joshua Mould, *Villanova University and Philadelphia Phillies*

FRIDAY SCHEDULE, AUGUST 5

SIGMAA Activity

SIGMAA on Teaching Advanced High School Mathematics (SIGMAA TAHSM) Business Meeting and Reception

5:00 pm - 6:30 pm, Salon E

SIGMAA Activity

SIGMAA on Undergraduate Research (UR SIGMAA) Business Meeting and Guest Lecture

5:00 pm - 6:30 pm, Salon D

Undergraduate Research in Data-Enabled Industrial Mathematics: Successful Collaborations with Business, Industry and Government

Speaker:
Mihhail Berezovski, *Embry-Riddle Aeronautical University*

Other Mathematical Session

MAA President's Ignite Celebration

7:00 pm - 8:00 pm, Salon GH

Social Event

MAA Ice Cream Social

8:00 pm - 9:00 pm, Salon D

SATURDAY SCHEDULE, AUGUST 6

Registration

7:30 am - 1:00 pm, Registration Desk 2 (Grand Ballroom Lobby)

Contributed Paper Session

Innovative Ideas in Teaching Mathematics - Lessons from the Pandemic and its Aftermath, Part B

8:00 am - 11:55 am, Salon J

Sponsor:
MAA Subcommittee on Curriculum Renewal and the First Two Years (CRAFTY)

Other Mathematical Session

Preparing for Industrial Careers (PIC Math) Showcases

8:00 am - 1:30 pm, Salon E

Schedule:

- Saturday 8:00 - 10:00 am: eight students talks at 15-minute intervals
- Saturday 10:00 - 11:00 am: two mathematicians from industry speak in 30-minute intervals
- Saturday 11:00 am - 12:00 pm: break
- Saturday 12:00 - 1:30pm: PIC Math student poster session

Sponsors:
PIC Math is a program of the Mathematical Association of America (MAA) and the Society for Industrial and Applied Mathematics (SIAM). Support is provided by the National Science Foundation (NSF grant DMS-1722275).

Invited Address

Christine Darden Lecture

Marissa Kawehi Loving, *University of Wisconsin-Madison*

Determining Metrics Using Lengths of Curves

9:00 am - 9:50 am, Salon GH

Contributed Paper Session

Responding to Policy Changes that Impact Developmental Math Courses

9:00 am - 11:20 am, Salon D

CHRONOLOGICAL SCHEDULE | SATURDAY

SATURDAY SCHEDULE, AUGUST 6

Contributed Paper Session

Supporting Pandemic Prepared Students
9:00 am - 11:55 am, Salon F

Contributed Paper Session

Recreational Mathematics: Puzzles, Card Tricks, Games, and Gambling, Part A
9:00 am - 11:55 am, Salon I

Sponsor:
SIGMAA on Recreational Mathematics (SIGMAA-REC)

Contributed Paper Session

Math Circles: Talks about Mathematical Joy, Inspirations, Data-Driven Lessons Learned, Part B
9:00 am - 11:40 am, Conf. Room 410

Sponsor:
SIGMAA on Math Circles for Students and Teachers (SIGMAA-MCST)

Panel

Building Community and Belonging in Mathematics
9:00 am - 10:20 am, Salon A

Invited Address

MAA Invited Address
Karen Marrongelle, *National Science Foundation*

Teaching Mathematics for the Future: Centering Student Thinking to Diversify STEM
11:00 am - 11:50 am, Salon GH

Town Hall

Supporting the Advancement of Latinx and Hispanic Mathematicians
11:00 am - 11:50 am, Salon C

Sponsor:
Latinx and Hispanics in the Mathematical Sciences (LATHISMS)

CHRONOLOGICAL SCHEDULE | SATURDAY

SATURDAY SCHEDULE, AUGUST 6

Contributed Paper Session

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

1:00 pm - 1:40 pm, Salon I

Sponsor:
SIGMAA on Recreational Mathematics (SIGMAA-REC)

Other Mathematical Session

Questions and Responses with the MAA Board of Directors

1:00 pm - 1:50 pm, Salon A

Invited Address

Martin Gardner Lecture

Jason Rosenhouse, *James Madison University*

The History and Future of Logic Puzzles

2:00 pm - 2:50 pm, Salon GH

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