MAA CONTRIBUTED PAPER SESSIONS
Call for Abstracts – MAA MathFest 2026

The Mathematical Association of America will hold its annual summer meeting at the Boston Marriott Copley Place, 110 Huntington Avenue, Boston, MA, August 5-8, 2026. The purpose of this announcement is to alert participants to the themes of contributed paper sessions. MAA MathFest participants are invited to submit abstracts of papers consistent with the themes of the sessions described below. The contributed paper sessions will be scheduled all day for Thursday, Friday, and Saturday, August 5-8. Information about scheduling will be posted online as soon as it is available. Presentations in the contributed paper sessions are normally 15 minutes in length. **Each participant may make at most one presentation in a contributed paper session but may be listed as co-authors on more than one abstract.** Each session room will be equipped with a computer projector and a screen. Speakers are encouraged to make use of the computer projector but must provide their own laptop computer or have access to one (along with, ideally, a preferred device HDMI adapter). Instructions to submit an abstract can be found at maa.org/event/mathfest. The deadline for submission of abstracts is April 15, 2026. Early submissions are encouraged.

1. ***Attracting Students to the Mathematical Sciences***
Description: Attracting and retaining students in the mathematical sciences requires creativity, visibility, and meaningful engagement. This session will highlight programs, events, and activities—both inside and outside the classroom, at any level —that successfully spark student interest, build mathematical community, and encourage students to see themselves as mathematicians.
Organizers:
Daniel Look, *St. Lawrence University*
Patti Frazer Lock, *St. Lawrence University*

2. ***Engaging Examples in Combinatorics, Graph Theory, and Discrete Math to Inspire Student Exploration***
Description: This session highlights engaging examples from combinatorics, graph theory, and discrete mathematics that might inspire classroom activities, inquiry-based learning, and undergraduate research. We also invite novel uses of recreational problems, games, and puzzles that spark exploration and discovery of discrete mathematics. Presentations should be accessible to faculty and advanced undergraduates and should emphasize the opportunity for mathematical exploration and discovery.
Organizers:
Suzanne Dorée, *Augsburg University*
Oscar Levin, *University of Northern Colorado*
Tyler Markkanen, *Springfield College*
Igor Minevich, *Wentworth Institute of Technology*
Jennifer Nordstrom, *Linfield University*

3. ***Enhancing Student Learning Through Digital Fabrication***
Description: 3D printing and other cutting-edge digital fabrication tools are transforming approaches to teaching and exploring mathematics. This session highlights how faculty use visualization, 3D printing, laser cutting, thermoforming, and digital making to create hands-on experiences for students. Presenters

will share classroom applications, course projects, or other approaches that use fabrication to enhance student learning in mathematics courses.

Organizers:
Lucy Oremland, *Skidmore College*
Shelby Stanhope, *US Air Force Academy*
Rachelle DeCoste, *West Point*
Karoline Hood, *West Point*
Csilla Szabo, *Skidmore College*
Katie Montovan, *Bennington College*
Amanda Beecher, *Consortium for Mathematics and its Applications (COMAP)*

4. ***Future Directions in Pre-K-12 Mathematics Teacher Preparation***
Description: As mathematics education evolves through new technologies, policies, and certification pathways, this session explores ways to strengthen Pre-K–12 mathematics and statistics teacher preparation. Presenters will address topics such as AI integration, policy implications, modernizing curriculum, equitable assessment, partnerships between schools and higher education to enhance teacher learning and professional growth, and the future of Pre-K–12 mathematics and statistics education.
Organizers:
Elizabeth Arnold, *Montana State University*
Liza Bondurant, *Mississippi State University*
Kanita DuCloux, *Western Kentucky University*
Matthew Haines, *Augsburg University*
Cody Patterson, *Texas State University*
Brooke Randazzo, *Augustana College*
Sponsors:
SIGMAA on the Mathematical Knowledge of Teaching (SIGMAA MKT)
MAA Committee on the Mathematical Education of Teachers (COMET)

5. ***Innovation, Evidence, and Applications of AI in Teaching and Learning Mathematics***
Description: This session examines how generative AI is reshaping collegiate mathematics teaching by showcasing theoretical work on pedagogical foundations, empirical research, classroom-based studies, and evidence-informed applications of tools such as large language models in instruction, assessment, and faculty development. Presentations highlight how mathematics faculty integrate GenAI to support student engagement, reasoning, and communication while maintaining rigor, with attention to professional learning structures, ethical use, AI literacy for students, and evolving theories of mathematical learning in the AI era. Attendees will engage in interactive discussion, see concrete examples of assignments and AI-enhanced activities, and leave with adaptable materials and strategies for thoughtfully incorporating GenAI into their own mathematics courses.
Organizers:
Kristi Rittby, *William Peace University*
Darryl Chamberlain, *Embry-Riddle Aeronautical University*
Ann Edwards, *WestEd*
Benjamin Gaines, *Iona University*
Jay Jahangiri, *Kent State University*
Drew Nucci, *WestEd*
Victor Oxman, *Western Galilee College, Acre, Israel*
Tanner Slagel, *University of North Carolina*
Jonathan Weisbrod, *Rowan College at Burlington County*
Sponsor: MAA Subcommittee on Technology in Mathematics Education

6. *Innovative Modeling Approaches to Teaching and Applying ODEs*

Description: How can we make ODEs come alive for students? Speakers will share classroom-tested strategies and out-of-class applications of ODEs—including undergraduate research, interdisciplinary modeling, and real-world problem solving. Talks feature active, student-centered pedagogy, assessment innovations, technology- and AI-enabled learning, and data-driven projects connecting mathematics to meaningful contexts. Further sharing with the community in the CODEE Journal and SIMIODE repository is encouraged.

Organizers:

Iordanka Panayotova, *Christopher Newport University*
Viktoria Savatorova, *Central Connecticut State University*
Michael Barg, *Niagara University*
Maila Hallare, *US Air Force Academy*
Therese Shelton, *Southwestern University*
Tova Brown, *Wisconsin Lutheran College*
Pushpi Paranamana, *FIT, State University of New York*
Brian Winkel, *SIMIODE*

Sponsors:

Community of Ordinary Differential Equations Educators (CODEE)
Systemic Initiative for Modeling Investigations and Opportunities with Differential Equations (SIMIODE)

7. *Inquiry, Conjecture and Discovery*

Description: This session explores Inquiry-Based Learning (IBL) methods that engage students in exploring definitions, observing patterns, and asking questions—practices that help transform them from consumers to producers of mathematics. We welcome examples from courses at all levels inviting students to conjecture, discover, and actively participate in the mathematical process. Submissions highlighting how AAC&U High-Impact Practices, such as undergraduate research, capstones, collaborative learning, or service-learning, immerse students in creative inquiry are especially encouraged. Presentations may focus on teaching strategies, classroom experiences, or evidence of student learning across diverse contexts.

Organizers:

Lee Roberson, *University of Colorado Boulder*
Vicky Klima, *Appalachian State University*
Rebekah Jones, *University of Colorado Boulder*
Aaron Wangberg, *Winona State University*
Joe Barrera, *Converse University*
Miriam Harris-Botzum, *Lehigh Carbon Community College*
Ana Wright, *Davidson College*
Vikram Kamat, *Villanova University*
Kate Owens, *College of Charleston*
Jordan Kostiuk, *Brown University*
Drew Lewis, *Center for Grading Reform*
Steven Clontz, *University of South Alabama*
Cory Wilson, *Oklahoma City Community College*

Sponsors:

SIGMAA on Inquiry-Based Learning (SIGMAA IBL)

MAA Committee on the Teaching of Undergraduate Mathematics (CTUM), High Impact Practices Working Group

8. ***Lessons Learned from Alternative Grading Implementations***
Description: Alternative Grading, an umbrella term for practices including standards-based grading, specifications, and ungrading, among others, has been increasingly used in courses throughout the mathematics curriculum. This session will share innovations and lessons learned from these implementations in various math courses. We are particularly interested in presentations presenting scholarly reflections on or evidence of the effectiveness (broadly defined) of these practices.
Organizers:
Drew Lewis, *Center for Grading Reform*
Sharona Krinsky, *Center for Grading Reform*

9. ***Looking at Complex Analysis and Geometry through the Lenses of Research, History, and Pedagogy***
Description: Complex Analysis and Geometry offer many elegant results and beautiful visual images. In this session, speakers will discuss such results and images. Talks are open to theoretical and applied research results including those done by undergraduate students, historical research and episodes that can be woven into the curriculum, and pedagogical research and approaches to the teaching of Complex Analysis and Geometry.
Organizers:
Russell Howell, *Westmont College*
Mike Brilleslyper, *Florida Polytechnic University*
Michael Dorff, *Brigham Young University*
Beth Schaubroeck, *United States Air Force Academy*

10. ***Mathematical Sciences in Research on the Environment***
Description: Environmental challenges continue to play a major role in our society, requiring innovative approaches to understanding and addressing these issues. Analyzing complex data and modeling environmental phenomena are essential to meeting those challenges. Join us in exploring how quantitative approaches can illuminate our understanding of environmental issues and contribute to effective solutions.
Organizers:
Russ deForest, *Pennsylvania State University*
Amanda Beecher, *Consortium for Mathematics and its Applications (COMAP)*
Sponsor: SIGMAA on Environmental Mathematics (SIGMAA EM)

11. ***Mathematics & Sports***
Description: Availability of play-by-play statistics, video-based spatial data, and wearable technology data have led to innovative sports analytics studies. This research is impacting all aspects of sports: strategy, player evaluation, ranking methods, marketing, etc. Research presentations, expository talks, preliminary reports, and pedagogical contributions are all welcome in this session. Projects accessible to or involving undergraduate students are particularly encouraged for submission.
Organizers:
Filippo Posta, *Phoenix College*
Paul VonDohlen, *William Paterson University*
Michael Shuckers, *UNC Charlotte*
Sponsor:
SIGMAA on Mathematics and Sports (SIGMAA SPORTS)

12. ***From Mathematics to Data Science: Adapting and Leading***

Description: Mathematics departments are increasingly adapting to the interdisciplinary demands of data science. This session examines organizational, pedagogical, and curricular approaches through presentations on program development, faculty preparation, new perspectives on data science applications, and AI's influence on teaching. A concluding panel will synthesize key themes and engage participants in discussing how mathematics can respond to the evolving data science landscape. Presenters will share research and pedagogical innovations demonstrating insights into scientific, cultural, and social questions, broadening the impact of data science in academic and real-world contexts.

Organizers:

Immanuel Williams, *SIGMAA SDS-Ed Program Officer*, *California Polytechnic State University, San Luis Obispo (Cal Poly)*
Monica Deni Morales-Hernandez, *Adelphi University*
Sherli Koshy-Chenthittayil, *Touro University*
Helen Burn, *SIGMAA SDS-Ed Past Chair*, *Highline College*
Mike LeVan, *Transylvania University*
Mike May, *Saint Louis University*

Sponsors:

SIGMAA on Statistics and Data Science Education (SIGMAA SDS-Ed)
MAA Mathematics Across the Disciplines Subcommittee (MAD)

13. ***Recreational Mathematics, Including Using Games and Puzzles to Enhance Core Math Courses***

Description: This session highlights both the theoretical investigation and teaching applications of recreational mathematics. We invite talks that show how recreational mathematics can enhance the teaching and learning in core undergraduate courses. Such talks will connect mathematical concepts with engaging puzzles and games. We also invite talks on general scholarship in the field of recreational mathematics, including submissions that present new problems or novel solutions to classic problems.

Organizers:

Paul Coe, *Dominican University*
Denise Rangel Tracy, *Francis Marion University*
Sara Quinn, *Dominican University*
Timothy Goldberg, *Lenoir-Rhyne University*
Kristen Schemmerhorn, *Concordia University Chicago*
Lauren Rose, *Bard College*
Sayonita Ghosh Hajra, *California State University, Sacramento*

Sponsors:

SIGMAA on Recreational Mathematics (SIGMAA REC)
AWM EvenQuads Committee

14. ***Redesigning Mathematics and Statistics Curricula in the Age of AI-Driven Computing***

Description: This session explores how individual instructors, departments and institutions are incorporating computational tools, particularly those facilitated by artificial intelligence or natural language models, in classroom practices and programmatic curricular design. Strategies and examples will be given for integrating AI-driven computation as instructional and pedagogical tools to enhance student learning, and how to incorporate AI-driven computation as an integrated learning outcome.

Organizers:

Joshua Girshner, University of Arkansas Fayetteville
Shanda Hood, University of Arkansas Fayetteville

Sponsor: SIGMAA on Mathematics Instruction Using the Web (SIGMAA WEB)

15. *Rewriting Who Counts*
Description: Although many scholars have contributed to mathematics for centuries, the standard curriculum tends to highlight a small number of names and many stories often remain absent. This session brings together colleagues who intentionally make an effort to identify and highlight a broader range of contributors to mathematics—past and present—in their teaching.
Organizers:
Alison Marr, *Southwestern University*
Della Dumbaugh, *University of Richmond*

16. *Structures for Supporting Student Success in Entry-Level Mathematics*
Description: Effective and supportive mathematics instruction in the first two years involves appropriate placement and advising, strong curriculum and pathways, and an informed and supported team of instructors. This session invites talks on improving placement guidelines and advising, supporting instructional teams, and improving the design and implementation of introductory and support courses, including corequisite courses, offered in the first two years.
Organizers:
Junalyn Navarra-Madsen, *Texas Woman's University*
Chloe Lewis, *University of Wisconsin-Eau Claire*
erica Whitaker, *Morehead State University*
Luke Tunstall, *Trinity University*
Rachael Lund, *Michigan State University*
Eric Marland, *Appalachian State University*
Allan Donsig, *University of Nebraska Lincoln*
Katharine Mawhinney, *Appalachian State University*
Sponsors:
MAA Subcommittee on Articulation and Placement (CUPM)
SIGMAA on Quantitative Literacy (SIGMAA-QL)
MAA Subcommittee on Curriculum Renewal Across the First Two Years (CRAFTY)

17. *Teaching and Outreach During Challenging Times*
Description: Since January 2025, a flurry of executive orders and policy changes in federal institutions and funding has disrupted the way higher education operates at all levels. Despite being subject to the same federal policy, higher education institutions reacted very differently. This session will include presentations that focus on the use of evidence-based practices in both informal and formal educational settings in response to the changing policy landscape.
Organizers:
Mary Pilgrim, *San Diego State University*
Francesca Bernardi, *Worcester Polytechnic Institute*
Amelia Stone-Johnstone*, California State University Fullerton*
Katrina Morgan, *Temple University*
Stephanie Salomone, *MAA Project NExT*
Stan Yoshinobu, *University of Toronto*
Charles Wilkes II, *University of California, Davis*
David Clark, *Grand Valley State University*
Michael Beals, *Rutgers University*
Sponsor: The MAA Committee on the Teaching of Undergraduate Mathematics

18. ***Teaching Flops: Turning Negatives into Positives***
Description: This session will help us learn from our negative teaching experiences to become better teachers. Each presentation in this session will describe a time that a pedagogical strategy was used but did not have the expected results. As a community, we will share our mistakes with colleagues and seek their feedback so that we can all improve our teaching.
Organizers:
Magdalena Luca, *Mass College of Pharmacy & Health Sciences*
Sandra Zak, *Monmouth University*
Erin Griesenauer, *Eckerd College*
Russell Goodman, *Central College*

19. ***Teaching through Time: Historical and Cultural Perspectives on Mathematics***
Description: This session brings together mathematicians, historians, and educators to explore how the history and cultural practices of mathematics enrich teaching and deepen understanding. Talks highlight historical case studies, ethnomathematical perspectives, and classroom applications that reveal mathematics as a dynamic, human, and culturally embedded enterprise across time and place.
Organizers:
Abe Edwards, *Michigan State University*
Ximena Catepillán, *Millersville University*
Cynthia Huffman, *Pittsburg State University*
Sponsor: SIGMAA on the History of Mathematics (SIGMAA HOM)

20. ***This Research is Knot Fun***
Description: Topology, and especially knot theory, is an area of math with a particularly fun vibe. Many mathematicians (and artists!) are attracted to research on topological spaces because of their tactile and visual nature. Topology research undoubtedly connects to your other favorite areas of math, too, from algebra to differential geometry. In this session, we showcase fun and interesting research in topology.
Organizers:
Allison Henrich, *Seattle University*
Samantha Pezzimenti, *Widener University*

21. ***Mentoring in Practice: Lessons from Undergraduate Research***
Description: This session explores the multifaceted experience of conducting research with undergraduate students, focusing on both the successes and the challenges that arise in mentoring undergraduate students. As undergraduate research continues to grow in prominence as effective intervention for retention of the diverse talent, it is timely to reflect on what makes these experiences productive, where common pitfalls occur, and how institutions and mentors can better support student researchers.
Organizers:
Anastasiia Minenkova, *University of Hartford*
Tori Day, *Mount Holyoke College*

22. ***Research on Undergraduate Mathematics Education***
Description: The goals of this session are to promote quality research in undergraduate mathematics education, to disseminate educational studies to the greater mathematics community, and to facilitate the

impact of research findings on mathematics pedagogy. Presentations may be based on research in any undergraduate mathematical area. Examples include studies about students' reasoning or mathematical practices, teaching practices, curriculum design, and professional development.

Organizers:

Kaitlyn Serbin, *The University of Texas Rio Grande Valley*
Brian Katz, *California State University Long Beach*
Deborah Moore-Russo, *The University of Oklahoma*
Samuel Cook, *Boston University*
Gulden Karakok, *University of Northern Colorado*

Sponsor:

SIGMAA on Research in Undergraduate Mathematics Education (SIGMAA RUME)

23. *Scholarship of Teaching and Learning in Collegiate Mathematics*

Description: Scholarship of Teaching and Learning (SoTL) investigates pedagogy, curricula, technology, or student understanding, attitudes, or views of mathematics. Conducted by and for practitioners, SoTL aims to improve teaching and learning. This session invites preliminary or final reports of scholarly investigations of collegiate-level teaching methods/curricula/tools or student (mis)understandings. Abstracts should describe the question(s) being investigated and the type(s) of evidence gathered.

Organizers:

Karen Stanish, *Keene State College*
Jackie Dewar, *Loyola Marymount University*
Celil Ekici, *Texas A&M University – Corpus Christi*
Jordan Kostiuk, *Brown University*
Hillary Van Spronsen, *Maine Maritime Academy*