Call for Papers, Workshops, Panels, and Special Sessions from the Division of Mathematics for ASEE 2024

Please note that we would like to encourage anyone who has questions or concerns about submitting to this call to contact the Program Chair Jim Lewis <james.lewis@louisville.edu>, or the Division Chair, Galen Papkov <gpapkov@fgcu.edu>.

1 Call for Papers

The **Mathematics Division** invites abstracts for papers to be presented at the 2024 ASEE Annual Conference to be held June 23-26, 2024, in Portland, Oregon. Abstracts may be submitted on topics related to the role of mathematics in engineering education. Topics of particular interest include, but are not limited to:
- strategies and their impacts supporting diversity and inclusion in mathematics courses,
- innovative teaching techniques and their impacts on outcomes in mathematics courses,
- use of technology and/or software in the teaching and learning of mathematics,
- issues, concerns, or problems in the teaching of mathematics to engineering students,
- impacts of math courses or math pathways on subsequent engineering student outcomes,
- interplay between mathematical training of engineering students and ABET outcomes,
- mathematical learning outcomes measured in non-mathematics engineering courses,
- statistics, applied math, or other mathematics course content essential to engineering,
- collaborative educational projects between mathematics and engineering,
- mathematics education strategies to broaden participation in engineering, or the
- preparation of mathematics graduate students to teach engineering students.

In order to publish to present at the conference, abstracts must be 250-500 words and follow the ASEE Abstract Format guidelines provided by ASEE. Abstracts and papers undergo a **blind review process**, and it is the authors' responsibility to ensure the requirements for anonymized review are met. In particular, authors' names and institutions should not be included in the text, file name, or document properties of an abstract or paper submitted for review.

The Mathematics Division accepts **3 types of papers**: Evidence-Based Work, Conceptual, and Work-in-Progress (WiP). Below are descriptions of the 3 paper types along with what details are expected in the abstracts and papers:
- Evidence-Based Work: Analysis of one or more practices, including teaching approaches, uses of instructional technologies, institutional strategies to support student success, etc., including assessment methods, evidence of effectiveness and/or achievement of desired outcomes. Abstracts should contain a clear objective statement of the paper's relevance to the engineering and mathematics communities, and assessment methods used, along with results. Papers that report original empirical findings should display or provide a link to the data. *Contributes new practices to the field of engineering education with scholarly evidence.*

- Conceptual: Reviews, meta-analyses or other theory-focused work, situated in the context of previous literature to reveal relationships, patterns or models, or extend existing theories. Conceptual abstracts should address the motivation and background of the work, theoretical framework(s) and sources, and significance. *Contributes a new understanding of theory or the current use of a theory and how they can be utilized within the field of engineering education research.*
- Work-in-Progress: Studies that are at an early to intermediate stage for which authors are seeking feedback from the community. WiP abstracts should address the motivation and background of the work, the current state of the study, and a plan for future data collection and analysis. A discussion of anticipated results and the significance would yield a stronger submission. *Raises awareness of future research and directions for the field of engineering education research.*

The Mathematics Division is a "publish-and-review-to-present" division: to present at the conference, you must have your paper accepted for publication in the 2024 Annual Conference and Exposition Proceedings and have at least one author available to participate in the peer review process for both abstract and draft paper submissions. At least one author for each accepted paper is expected to register for and present at the conference.

The 2024 Conference Authors Kit is available here. **Abstracts are due by 11:59pm (EST) on October 31, 2023.**

2 Call for Proposals: Special Sessions, Panels, and Work- shops

Where paper presentations are great for disseminating new research and practice, sometimes 15 minutes just won't do. For longer, **more interactive sessions**, the Mathematics Division is soliciting proposals for Workshops (2-4 hours usually on the first day of the conference during conference workshop time slot), Special Sessions, and Panels (both held during a 90-minute technical session time slot).

2.1 Special Session and Panel Proposals

Maximum 5 pages (not including references). Proposals for Special Sessions or Panels should be sent directly to the Program Chair <james.lewis@louisville.edu> and NOT through the New Monolith (NeMo) system. **The deadline for submitting special session or panel proposals is November 15, 2023.** Proposals should include the following information:
- A description of the session/panel, including its purpose, format, learning goals, content, and activities.
- A schedule of activities.
- An explanation of why the non-traditional/panel format is needed to accomplish the learning goals.
- A list of presenters/facilitators/panelist and their contact information, along with a brief justification for their ability to successfully accomplish the stated goals.

Proposals will be reviewed and selected by the Mathematics Division to be forwarded for

further consideration by ASEE, which makes the final decision. Acceptance of a Special Session or Panel proposal does not guarantee that it will appear in the final program.

2.2 Workshop Proposals

Maximum 7 pages (not including references). Proposals for Workshops submitted through the Mathematics Division should be sent directly to the Program Chair [<james.lewis@louisville.edu>](mailto:james.lewis@louisville.edu) and NOT through the NeMo system. **The deadline for submitting workshop proposals is November 15, 2023.** Proposals should include the following information:

- A description of the session, including its purpose, format, learning goals, content, and activities.
- A schedule of workshop activities.
- An explanation of why the non-traditional/panel format is needed to accomplish the learning goals.
- A list of presenters/facilitators and their contact information, along with a brief justification for their ability to successfully accomplish the stated goals.

All workshops have an associated $150 fee. If the workshop is approved by the Mathematics Division, it is then submitted to ASEE by the Program Chair. The submission to ASEE will include additional information such as estimated attendance, estimated ticket cost and the responsible party to subsidize the expense if tickets don't cover the entire cost of the event (ASEE charges for the room, audio-visual, etc.), and expected food and beverage requests.

3   Important Dates

Abstract Submissions Open – October 1, 2023
Abstract Submissions Due – October 31, 2023
Draft Paper (for accepted abstracts) Due - January 31, 2023
Draft Paper Revision Due (if requested) - March 7, 2023
Final Paper Due - April 30, 2023