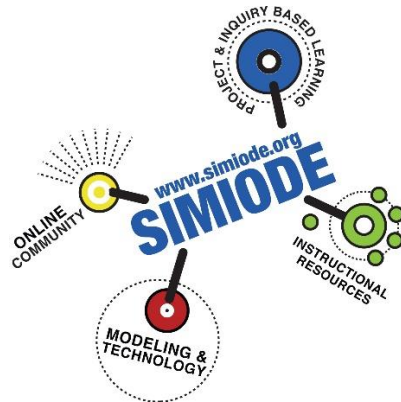


MathFest 2024 Two SIMIODE Opportunities for You



Contributed Paper Session Invitation

On behalf of my fellow session organizers:

- Therese Shelton, Southwestern, University, Georgetown TX USA,
- Pushpi Paranamana, St. Mary's College, Notre Dame IN USA,
- Rosemary Farley, Manhattan College, Riverdale NY USA, and
- Patrice Tiffany, Manhattan College, Riverdale NY USA ,

I invite you to share your great ideas in teaching differential equations using activities, projects, and models at MathFest 2024, 7-10 August 2024, in Indianapolis IN USA.

Below is our description of the session. You can submit your abstract at the [submission page for MathFest 2024](#). Or go to the general conference page at <https://maa.org/meetings/maa-mathfest> .

Title: Differential Equations Student Activities and Projects, Big and Small

Abstract: This session features talks by those who teach differential equations using modeling with active, student-centered learning techniques. We invite presentations of effective undergraduate and high school activities and projects offered in teaching differential equations with modeling, especially those that focus on creativity and relevance in modeling, data, and use of technology.

Using realistic modeling to motivate student learning of mathematics motivates students to learn the mathematics under study, generates interest in useful applications of mathematics, enhances transferability of materials to cognate disciplines, and adds intrigue and joy to learning. Moreover, students remember the mathematics because of the applications and learning in context.

We seek scholarly accounts in presentations with immediate possibilities and sufficient materials for attendees to pick up and bring into their teaching of differential equations. The presenters must make clear the rudiments of the approach to the model and to the mathematics in which the engagements and nuances of the student experiences are conveyed so the audience can envision how and then act on

using the material to enhance learning in the local classroom. Personal aspects are valued for collegial exchange.

MiniCourse Invitation

Differential Equations: A Toolbox for Modeling the World in Your Classroom

We engage faculty in incorporating modeling in teaching differential equations by giving them classroom experience as students to see the approach of modeling first teaching differential equations in context. We use modeling scenarios from SIMIODE's (qubeshub.org/community/groups/simiode) Community of Practice. Further, we devote time to logistics, practical issues, and concerns with using modeling in teaching through discussion and activities.

Minicourses are highly interactive sessions designed in a two-part workshop format focusing on specific aspects of collegiate mathematics, the undergraduate curriculum, and mathematical pedagogy. These courses are taught by experts in the field, with two hours dedicated to each section.

Separate registration and \$100 fee by 15 April 2024 is required. Space is limited for these two 4-hour sessions in which engagement is the key word.

Organizers:

Brian Winkel, Director SIMIODE

Tracy Weyand, Rose-Hulman Institute of Technology

Kurt Bryan, Rose-Hulman Institute of Technology