# SPECIAL SESSIONS ON SIMIODE Challenge Using Differential Equations Modeling (SCUDEM) and STUDENT Poster Sessions



10-13 FEBRUARY

1:00-10:00 PM Eastern US Time



Register now! simiode.org/expo



# **KEYNOTES**

DATA FOR DES

PRISON MATH

DIETARY INTAKE STUDIES

## **CRYPTOLOGY**

#### FOR ALL:

Informal meetings Career sessions Escape Room Fun Math Bowl Meet and visit friends

#### FOR FACULTY:

Workshops and Talks on modeling Meet SIMIODE textbook author Class takeaways and ideas

#### **FOR STUDENTS:**

SCUDEM – Sharing Poster Sessions



SIMIODE is a non-profit Community of Practice dedicated to supporting the teaching and learning of differential equations, a pivotal STEM course, with modeling throughout and in context.

**SIMIODE** - Systemic Initiative for Modeling Investigations and Opportunities with Differential Equations is hosting an international, online conference - SIMIODE EXPO 2022, 10-13 February 2022. **Visit here** for complete description and registration, as well as videos from SIMIODE EXPO 2021. There is a modest registration fee of \$25 US for Students and \$45 US for Non-Students.

Join us at EXPO 2022 for the mathematical event of the new year to share in the many programs and features offered and to meet with friends in the very friendly <u>MathDept.org</u> meet-up platform which permits INSTANT conversations and small group gatherings ON THE SPOT with friends and associates.

SIMIODE's Community of Practice is focused on helping teachers and students in teaching and learning differential equations through modeling, while EXPO 2022 embraces broader mathematical explorations.

This year's conference has expanded from two to four days and will include rich immediate conversation and gathering mode for one-on-one conversations, small group interactions or meetings, and structured Breakout sessions, all due to the exceptional <a href="MathDept.org">MathDept.org</a> platform on which the conference is offered. Think hallway conversations and small group, focused engagements.

CALL for PRESENTERS and Student Posters: The conference events are evolving and we welcome attendee suggestions, inputs, talks, and sessions. Think creative! Pick a session or request a new topic and then send your inquiries and submission details to <a href="mailto:Director@simiode.org">Director@simiode.org</a> and include full name, institution name, location, title, abstract, intended audience, and session to which you are submitting or wanting to create.

There will be a rich program to including four Keynote speakers:

- Deborah Hughes Hallett, Mathematics and Public Policy, University of Arizona, Tucson AZ USA on *Data for Projects with Differential Equations*;
- Amit Sahai, Computer Science, University of California, Los Angeles CA USA; Christopher Havens, Executive Director and Founder, Prison Mathematics Project, TRU at Monroe Correctional Complex, Monroe WA USA; and Trubee Davison, Mathematics, Western Colorado University, Gunnison CO USA on The Prison Mathematics Project: Justice Via the Pursuit of Beauty
- The Prison Mathematics Project: Justice Via the Pursuit of Beauty

   Craig Bauer, Mathematics, York College of Pennsylvania, York PA USA, Editor Cryptologia on Cryptology, Rich Source of Mathematical Problems, Coursework, and History
- Diana Thomas, Mathematics, United States Military Academy, West Point NY USA on *Modeling, Validating, and Applying Mathematical Models to Determine Dietary Intake During Weight Loss Interventions*

The focus of EXPO 2022 is in support of teachers and students using modeling to motivate, teach, and learn differential equations, as well as modeling in other courses. However, the conference features sessions on career paths for students and faculty. We do this in workshops, contributed papers, informal breakout sessions on themes offered by organizers and suggested by participants, a MathBowl trivia challenge and a Mathematical Escape Room event, Student Poster sessions, and much more. Visit sessions you want and also engage in small conversations whenever you want on our user-friendly platform - think instant ZOOM session with the click of a button. Themes include

both student and faculty concerns, conversations about important (to attendees) curriculum issues, student course selection, career options and sharings, social justice issues, technology use, data sources, full cycle modeling, and pedagogical approaches, materials, and guidance.

While SIMIODE is about teaching differential equations in context with modeling, the EXPO 2022 conference will offer a wider set of gatherings in support of broader mathematical studies and experiences for high schoolers through retired colleagues. This is especially true as we reach out for those of you seeking a winter meeting experience focused on teaching and careers. EXPO 2022 is not a research conference *per se*, although we welcome talks on undergraduate and high school research projects and teacher collaboration.

Again, see <a href="https://qubeshub.org/community/groups/simiode/expo">https://qubeshub.org/community/groups/simiode/expo</a> for complete description and registration for SIMIODE EXPO 2022, and videos from SIMIODE EXPO 2021. We look forward to you joining us and sharing your ideas and experiences, while listening to collegial wisdom and advice on how to improve teaching all mathematics with an emphasis for the conference on differential equations through modeling.

All are welcome - academic, industry, government, non-profit, and individuals. Let us all celebrate mathematics!

We are now accepting <u>full registrations and submissions</u> for contributors. Send your inquiries and submission details to <u>Director@simiode.org</u> and include full name, institution name, location, title, abstract, intended audience, and session to which you are submitting. We will respond quickly. If you do not see a session appropriate to your work then propose one. Simple as that!



Use this QR Code to GO to EXPO 2022 website and Register now.

Or Register now at https://qubeshub.org/community/groups/simiode/expo.

## See you in February!

This is an opportunity to engage with colleagues and share your thoughts and experiences in using modeling to teach differential equations and so much more. Come join the celebration!

There is a modest registration fee of \$25 US for Students and \$45 US for Non-Students.

While we have your attention we would like you to consider our <u>SIMIODE Textbook</u> and all its rich resources for a modeling approach to teaching differential equations. Your students will like it and enjoy the motivational approach with real-world modeling materials to introduce the differential equations studies.

For all inquiries contact: <u>Director@simiode.org</u>.



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