SIMIODE EXPO 2023 SCHEDULE -- By Time and Room

See https://qubeshub.org/community/groups/simiode/expo/2023 for complete details.

Day 1 – Friday, 10 February 2023

Time (EST/PST)	Main Room	Room 1	Room 2
12:45-1:00 PM (EST) 9:45-10:00 AM (PST)	**Opening Ceremony and Greetings**		
1:00-1:25 PM (EST) 10:00-10:25 AM (PST)	**Modeling Opportunities:** Predator-Prey System with a Lotka-Volterra Model Using Random Coefficients Estimated from a Data Set	**Modeling Opportunities:** Battle of the Smartphone Brands: Will One Drive the other to Extinction?	**Modeling Opportunities:** The People in Modeling Epidemics
1:30-1:55 PM (EST) 10:30-10:55 AM (PST)	**Organizational Sources:** The Consortium for Mathematics and its Application – An Overview of COMAP	**Organizational Sources:** Sharing News and Offerings of CODEE	
2:00-2:25 PM (EST) 11:00-11:25 AM (PST)	**Get to know colleagues:** Break Out rooms with 5 attendees assigned to know some other attendees and exchange interests.		
2:30-3:25 PM (EST) 11:30-12:25 PM (PST)	**Keynote Speaker:** Connecting Differential Equations with the Arts, Music, and Literature		
3:30-3:55 PM (EST) 12:30-12:55 PM (PST)	**Breakout Time on Topics:** Differential Equations with Arts, Music, and Literature	**Breakout Time on Topics:** Prison Math Project (PMP)	**Breakout Time on Topics:** Meet the Author of SIMIODE's text, Differential Equations: A Toolbox for Modeling the World
4:00-4:25 PM (EST) 1:00-1:25 PM (PST)	**Role of Technology and Tools in Modeling – I:** Multisim – a Circuit Simulator	**Role of Technology and Tools in Modeling – I:** Project-Based Engineering with Jupyter and Python	**Role of Technology and Tools in Modeling – I:** SageMathCell as a DE Toolbox
4:30-4:55 PM (EST) 1:30-1:55 PM (PST)	**Role of Technology and Tools in Modeling – II:** Slopes: A Free, Intuitive Mobile App to Enhance Learning in Differential Equations	**Role of Technology and Tools in Modeling – II:** A Web-based Software that Enables Teachers, Students, Scientists and Engineers to Simulate, Fit and Share Models	**Role of Technology and Tools in Modeling – II:** Jupyter Notebook and RMarkdown in a Modeling Based Differential Equations Course
5:00-5:25 PM (EST) 2:00-2:25 PM (PST)	**Calculus and Differential Equation Modeling:** Adapting SIMIODE Modeling Scenarios for Calculus	**Calculus and Differential Equation Modeling:** Differential Equations: One Course in a Lifetime of Modeling – I	**Calculus and Differential Equation Modeling:** SIRV Model for the Prediction of H5N1 Influenza Case Count and Geotemporal Spread
5:30-5:55 PM (EST) 2:30-2:55 PM (PST)	**Calculus and Differential Equation Modeling:** Using Discrete Dynamical Systems and Differential Equations Projects in Calculus II	**Calculus and Differential Equation Modeling:** Differential Equations: One Course in a Lifetime of Modeling – II	**Calculus and Differential Equation Modeling:** Experiments, Data, and Models for Nonlinear Electrical Circuits
6:00-7:30 PM (EST) 3:00-4:30 PM (PST)	**Meal Break**		

7:30-7:55 PM (EST) 4:30-4:55 PM (PST)	**Big Picture Issues:** Discovering Bifurcation	**Big Picture Issues:** Engaging Engineers by Design	
8:00-8:25 PM (EST) 5:00-5:25 PM (PST)	**Sources and Examples of Models:** Cooking a Turkey	**Sources and Examples of Models:** Mathematical Modeling for Epidemiology and Ecology	
8:30-9:25 PM (EST) 5:30-6:25 PM (PST)	**Some History and Geometry:** Logic of the world's most famous identity e^(pi*I) = -1	**Some History and Geometry:** Inception Curves	

Day 2 – Saturday, 11 February 2023

Time (EST/PST)	Main Room	Room 1	Room 2
12:45-1:00 PM (EST) 9:45-10:00 AM (PST)	**Opening Ceremony and Greetings**		
1:00-1:25 PM (EST) 10:00-10:25 AM (PST)	**SCUDEM:** The SCUDEM Experience: Overview, Progress, and Future Directions		
1:30-1:55 PM (EST) 10:30-10:55 AM (PST)	**SCUDEM Experiences:** Outstanding Team: Mechanics of Suction Feeding	**SCUDEM Experiences:** Outstanding Team: Modeling People Ruin Everything	**SCUDEM Experiences:** Outstanding Team: Recovering from Disruption
2:00-2:25 PM (EST) 11:00-11:25 AM (PST)	**Using SIMIODE and Other Published Sources of Modeling with Differential Equations:** Introduction to Modelling Through Microbial Interaction Application	**Using SIMIODE and Other Published Sources of Modeling with Differential Equations:** Increasing STEM Students Retention Rates Using Mathematical Modeling in Curriculum Design	
2:30-2:55 PM (EST) 11:30-11:55 AM (PST)	**Large Source Materials:** Using Linked Problem Sets to Embed Modeling int a Differential Equations Course	**Large Source Materials:** Challenges of Teaching Dynamic System Modeling to Undergrads in Diverse Disciplines	
3:00-3:55 PM (EST) 12:00-12:55 PM (PST)	**Keynote Speaker:** A journey from being Mathematician to becoming Scientists via Modeling World		
4:00-4:25 PM (EST) 1:00-1:25 PM (PST)	**Using SIMIODE and Other Published Sources:** Using SIMIODE and other published sources of modeling in differential equations	**Using SIMIODE and Other Published Sources:** Inquiry Oriented Differential Equations (IODE): A Student-Centered Modeling Curriculum	
4:30-4:55 PM (EST) 1:30-1:55 PM (PST)	**Modeling In Undergraduate Research – I:** A Different Route to Success: Passing by Differential Equations	**Modeling In Undergraduate Research – I:** Two-Dimensional Groundwater Flow Modeling Project	**Modeling In Undergraduate Research – I:** Effectiveness of Fluralaner Treatment Regimens for the Control of Canine Chagas
5:00-5:25 PM (EST) 2:00-2:25 PM (PST)	**Get to know colleagues:** Break Out rooms with 5 attendees assigned to know some other attendees and exchange interests		
5:30-5:55 PM (EST) 2:30-2:55 PM (PST)	**Model Examples:** Implementing a Multicompartment Pharmacokinetic Drug Delivery Model as a Systems of ODEs	**Model Examples:** How High? Modeling Free Fall with Air Drag	**Model Examples:** Modeling Population Growth and Sustainable Harvesting
6:00-7:30 PM (EST) 3:00-4:30 PM (PST)	**Meal Break**		

7:30-7:55 PM (EST) 4:30-4:55 PM (PST)	**And Now for Somethings Different and Good:** Organizing a SIMIODE Sponsored AMS Special Session at JMM 2023 – How to Do it	**And Now for Somethings Different and Good:** Mathematical Analysis of a Dynamical Model of mild Atherosclerosis	**And Now for Somethings Different and Good:** SCUDEM Outstanding Team: People Ruin Everything
8:00-8:25 PM (EST) 5:00-5:25 PM (PST)	**Modeling Undergraduate Research – II:** Using Fractal Geometry to Quantify the Complexity of Nature	**Modeling Undergraduate Research – II:** Optimal Control Applied to Blood Glucose Level Regulation in Diabetes Patients	**Modeling Undergraduate Research – II:** Modeling the Outcomes of Patients with Ischemic Hepatitis
8:30-8:55 PM (EST) 5:30-5:55 PM (PST)	**Modeling Undergraduate Research – III:** Student Differential Equation Modeling Projects	**Modeling Undergraduate Research – III:** Using Differential and Multivariable Calculus to Model the Success of Energy Transition Policies	
9:00-9:45 PM (EST) 6:00-6:45 PM (PST)	Experience the Fun of a MathBowl Challenge		
9:45PM-After Hours (EST) 6:45PM-After Hours (PST)	Small Group Discussions on *ChatGPT*		

Day 3 – Sunday, 12 February 2023

Time (EST/PST)	Main Room	Room 1	Room 2
12:45-1:00 PM (EST) 9:45-10:00 AM (PST)	**Opening Ceremony and Greetings**		
1:00-1:25 PM (EST) 10:00-10:25 PM (PST)	**Special Topics within Differential Equations Modeling Courses:** Network Diagrams in Understanding the Structure and Behavior of Differential Equations	**Special Topics within Differential Equations Modeling Courses:** Cruise Control	**Special Topics within Differential Equations Modeling Courses:** Hitting a Stationary Target by Firing a Projectile from Different Angles
1:30-1:55 PM (EST) 10:30-10:55 PM (PST)	**How to Get Started with Modeling in a Course:** Teaching Students to Formulate Models	**How to Get Started with Modeling in a Course:** Pullback Cars and Pop Cycles: Vehicles for a First Modeling Experience	
2:00-2:25 PM (EST) 11:00-11:25 PM (PST)	**Outreach Efforts for Mathematics:** Creating Justice Through Differential Equations	**Outreach Efforts for Mathematics:** Community Based Projects for a Course on Math Modeling and Sustainability	
2:30-2:55 PM (EST) 11:30-11:55 PM (PST)	**Sample Classes Discussed and Demonstrated:** Simulation and Modeling Blue Whale and Krill Populations	**Sample Classes Discussed and Demonstrated:** An Experience in Interuniversity/International Collaboration on Teaching a Modeling Scenario	
3:00-3:25 PM (EST) 12:00-12:25 PM (PST)	**Engaging Students Early and Closer to Cognate Discipline Courses:** Engage Students with Hands-on Activities on the First Day of a Differential Equations Class	**Engaging Students Early and Closer to Cognate Discipline Courses:** Snap, Crackle and Pop: Models from the Field of Reaction Engineering	
3:30-4:25 PM (EST) 12:30-1:25 PM (PST)	**Authoring a Modeling Textbook – Why and How:** Author panel on authoring a modeling textbook		
4:30-4:55 PM (EST) 1:30-1:55 PM (PST)	**Breakout Rooms to Discuss Important Issues:** Impact of ChatGPT and AI software		
5:00-5:25 PM (EST) 2:00-2:25 PM (PST)	**Applications in Biology and Engineering:** Teaching Modeling to Biology Undergraduate	**Applications in Biology and Engineering:** Numerical Solutions of Nonlinear Differential Equations for STEM College Education	**Applications in Biology and Engineering:** SCUDEM Outstanding Team: Humans Don't Deserve the World – Modeling the Introduction of Humans to a Predator-Prey System
5:30-5:55 PM (EST) 2:30-2:55 PM (PST)	**Modeling – The Broader Viewpoint:** My Journey from Electrical Engineer to Teaching Diff Eq with Candy	**Modeling – The Broader Viewpoint:** Multiresolution Modeling and Evidence Generation: Implications from Social Issues to Precision Health	

6:00-6:15 PM (EST) 3:00-3:15 PM (PST)	**Farewell, Closing, and Evaluation Survey**		