

100th Meeting of the Southeastern Section of the Mathematical Association of America, March 5th, 6th, 12th, and 13th, 2021

Program for Friday, March 5th and Saturday, March 6th

All Times are Central Standard Time (GMT-6)

Friday, March 5th

Project NExT-SE: 2:00 PM – 4:00 PM, CST

Organizers: Kristen Abernathy (Winthrop University), Zach Abernathy (Winthrop University), Molly Fenn (North Carolina State University)

Zoom link was provided to pre-registrants by email.

Time	Event
2:00-2:15	New cohort meet and greet
2:15-2:45	Kristen Mazur, Elon University, Promoting Productive Struggle
2:45-3:00	Breakout room discussions
3:00-3:45	Tim Chartier, Davidson College, "Math-nificent Stories"
3:45-4:00	Wrap-up discussions

Workshop: 5:30 PM – 7:30 PM, CST: CANCELLED: Incorporating Modeling in Your Differential Equations Course, Audrey Malagon (Virginia Wesleyan University), Jeff Denny (Mercer University)

This workshop has been CANCELLED. SIMIODE will be hosting a similar webinar on using modeling-based pedagogy in face to face, hybrid and remote settings on Thursday, April 15 from 1-3 pm. Watch this site for updates and registration info: <https://www.maa.org/programs-and-communities/virtual-programming> and contact Audrey Malagon, amalagon@vwu.edu with questions.

Social Event: 6:30 PM – 7:30 CST: Virtual Escape Room

Planning Team: Julie Barnes, Shih-Wei Chao, Rachel Epstein, Kerri Jamerson, Bryan Lai, Allie Ray, Laura Steil

- Zoom link: <https://wcu.zoom.us/j/89649661957>
- This social event has some of the feel of a virtual escape room in that you will work in teams to open locks, collect clues, and eventually open a treasure chest to receive a prize. However, you will also "travel around the world" to do that.
- Faculty and students are invited to participate!

Saturday, March 6th

Virtual Registration and Help Desk: 8:00 AM – 11:05 PM CST

- Zoom link: <https://davidson.zoom.us/j/95415156554>
One tap mobile
+13126266799,,95415156554# US (Chicago)
+16465588656,,95415156554# US (New York)

Morning Session: 8:30 AM – 11:05 AM, CST

Workshop: Virtual Courses Require Mastery-Based Solutions, Sydney Smith (Hawkes Learning)

Zoom link: <https://ncsu.zoom.us/j/96112165330>

Workshop: More than Set Theory: An Intersectional Approach to Diversity in Mathematics, Catrina May (Georgia State University)

Zoom link: <https://zoom.us/j/96488040564>

Special Session on Recreational Mathematics, Part 1, Organizer: Timothy Goldberg (Lenoir-Rhyne University)

Zoom link: <https://Lenoir-Rhyne.zoom.us/j/92434588951>

Time	No.	Title	Author	Affiliation
8:30 AM	REC1.1	Ballot Box Beggars: Unexpected Connections Between Voting and Fairness	Joshua Siktar	University of Tennessee-Knoxville
		Additional author: Dr. Jeneva Clark (University of Tennessee-Knoxville)		
8:50 AM	REC1.2	Pattern, Conjecture, Proof, Application	John J McKinley	None
9:10 AM	REC1.3	Enumeration of planar Tangles	Douglas A. Torrance	Piedmont College
9:30 AM	REC1.4	How Do We Know There are 43,252,003,274,489,856,000 Different Positions for Rubik's Cube?	Jeff Clark	Elon University

Contributed Paper Session 1, Moderator: Wei-Kai (Bryan) Lai (USC Salkehatchie)

Zoom link: <https://fmarion-edu.zoom.us/j/98973183237>

Time	No.	Title	Author	Affiliation
8:30 AM	CP1.1	Implementing an Online Self-Directed ALEKS Bridge Course for Algebra Skills Using Standards Grading	Amanda Mangum	Converse College
8:50 AM	CP1.2	Teaching Introductory Statistics with R and R Shiny Apps	Yuanning Lu	Department of Mathematics,

				Mercer University
9:10 AM	CP1.3	Engagement in Medium-Sized, Remote Mathematics General Education Class Setting	Chad Mangum	Clemson University
9:30 AM	CP1.4	Teaching Math with Food Manipulatives	Lindsay Grinstead	University of Tennessee
Additional author: Lee Spence (University of Tennessee)				
9:50 AM	CP1.5	Infinity and Beyond: Teaching Infinity to Non-STEM Majors	Jacob Honeycutt	University of Tennessee Knoxville
10:10 AM	CP1.6	Assessing Multi-Section Courses - First Steps	Robin Lovgren	Belmont University
10:30 AM	CP1.7	Deficits, Descartes, and Discovery: An Observational Approach to Teaching Curvature	Jonathan Clark	Great River Learning
Additional author: Dr. Jeneva Clark (University of Tennessee, Knoxville)				
10:50 AM	CP1.8	Extending the Concepts of Domain and Range to a Hexagon	Margaret Adams	South Georgia State College

General Session 1: 12:00 PM – 1:00 PM, CST

- Zoom link: <https://mhu.zoom.us/j/91352276854>
- Introduction: Tim Chartier (Davidson College)
- Section Lecturer Ron Taylor (Berry College)
 - Title: Patterns of Play: A Recreational View of Mathematics

Virtual Registration and Help Desk: 1:00 PM – 3:15 PM CST

- Zoom link: <https://davidson.zoom.us/j/95415156554>
- One tap mobile
- +13126266799,,95415156554# US (Chicago)
- +16465588656,,95415156554# US (New York)

Afternoon Session: 1:15 PM – 3:15 PM, CST

<i>Special Session on Opportunities in Data Science for Undergraduate Programs, Part 1, Organizers: Kristen Abernathy and Zach Abernathy (Winthrop University)</i>				
Zoom link: https://winthrop-edu.zoom.us/j/81945630644				
Time	No.	Title	Author	Affiliation
1:15 PM	DSC1.1	Data Science: A Tool for Recruitment and Broadening Participation?	R. N. Uma	NC Central University
		Additional authors: Alade Tokuta (NC Central University), Rebecca Zulli Lowe (Cynosure Consulting), Adrienne Smith (Cynosure Consulting), and Gaolin Milledge (NC Central University)		

1:35 PM	DSC1.2	Data Science at Western Carolina University	Jeff Lawson	Western Carolina University
		Additional authors: Andrew Penland (Western Carolina University), John Wagaman (Western Carolina University)		
1:55 PM	DSC1.3	Our Journey Toward an Undergraduate Program in Data Science	Zach Abernathy	Winthrop University
2:15 PM	DSC1.4	Building Data Science at a Small Liberal Arts College	Michael Lamar	Centre College

<i>Special Session on Mathematics Outside of Teaching Math, Organizers: William Cocke (Army Cyber Institute), Lee Troupe (Mercer University)</i>				
Zoom link: https://mercer.zoom.us/j/93574457338				
Time	No.	Title	Author	Affiliation
1:15 PM	OUT.1	Mathematics in Cyber Security	Lisa Jones	Government researcher
1:35 PM	OUT.2	Mathematics in Electric Utility Operations	Michael Stemper	Power Engineer (retired)
1:55 PM	OUT.3	Opportunities in Mathematics Outside of Academia	Lauren Huckaba	Laboratory for Physical Sciences
2:15 PM	OUT.4	Perspectives in industrial modeling	H. Tracy Hall	Hall Labs, LLC
2:35 PM	OUT.5	Monte Carlo Ray Tracing and its Application in Concentrating Solar Power Technologies	Robert Gill	Doctoral Candidate, Georgia Institute of Technology
2:55 PM	OUT.6	Where we are going, and where we have been: Cryptography, security, technology	Daniel Hawthorne	Government Researcher

<i>Special Session on Recreational Mathematics, Part 2, Organizer: Timothy Goldberg (Lenoir-Rhyne University)</i>				
Zoom link: https://lenoir-rhyne.zoom.us/j/97431714029				
Time	No.	Title	Author	Affiliation
1:15 PM	REC2.1	Howie meets Monty: Mathematical activity in the synthesis of two game shows	Ryan D Fox	Belmont University
1:35 PM	REC2.2	Domination and Independence of Diamond Chessboards	Isac VanWormer	Austin Peay State University
		Additional authors: Dr. Brad Fox (Austin Peay State University)		
1:55 PM	REC2.3	Counting Nonattacking Independent Kings	Tricia Muldoon Brown	Georgia Southern University

<i>Contributed Paper Session 2, Moderator: Dan Scofield (Francis Marion University)</i>				
Zoom link: https://wcu.zoom.us/j/84525373166				
Time	No.	Title	Author	Affiliation
1:15 PM	CP2.1	Descriptive Set Theory as a Second Course in Undergraduate Real Analysis	Francis Adams	Piedmont College
1:35 PM	CP2.2	Field extensions defined by $x^6 + ax^3 + b$ and their Galois groups	Chad Awtrey	Elon University
		Additional authors: Jim Beuerle (Elon University), Hanna Noelle Griesbach (Elon University)		
1:55 PM	CP2.3	Fuchs' Problem for Small Groups	William Cook	Appalachian State University
		Additional authors: Lindsey Wise (Appalachian State University) and Joshua Carr (Wilkes Community College)		
2:15 PM	CP2.4	Introduction to Signed Graphs	Nancy Matar	Western Carolina University
2:35 PM	CP2.5	Distinct Representatives in Special Set Families in Graphs	Sarah Holliday	Kennesaw State University
		Additional authors: Pete Johnson (Auburn University), Steve Hedetniemi (Clemson University)		
2:55 PM	CP2.6	On Tight 9-Cycle Decompositions of Complete 3-Uniform Hypergraphs	Bunge, Ryan C.	Illinois State University
		Additional authors: Brian D. Darrow (Columbia University), Saad I. El-Zanati (Illinois State University), Kimberly P. Hadaway (Williams College), Megan K. Pryor (North Carolina State University), Alexander J. Romer (Millikin University), Alexandra L. Squires (Lee University), Anna C. Stover (Grand Valley State University)		

General Session 2: 3:30 PM – 4:30 PM, CST

- Zoom link: <https://mhu.zoom.us/j/99260425116>
- Introductions: Tom Fitzkee (Francis Marion University)
- 2019 Distinguished Teaching Award Winner: Julie Barnes (Western Carolina University)
 - Title: Life on and off a Julia set: A complex look at teaching and life
- 2019 Distinguished Teaching by a Beginning Faculty Award Winner: Nicole Panza (Francis Marion University)
 - Title: Riding the Wave