

#### Welcome!

The Metro NExT Workshop is a mathematics pedagogy and professional development workshop geared towards graduate students, postdocs, and early-career mathematicians in the NYC metro area and is open to anyone who are interested in learning about new teaching techniques and in making connections with other math educators.

### Schedule (Held online via Zoom)

10:00 AM: Lightning Talks

**10:45 AM:** Discussion: "Rigor, Accessibility, and the Retention Puzzle"

**11:30 AM:** "Teaching Ethics and/or Social Justice in Mathematics"

Allison Miller, Swarthmore College

Abstract: This talk comes out of my experience teaching "Ethics in Mathematics" (Rice University, Spring 2021) and "Mathematics and Social Justice" (Swarthmore College, Spring 2022, 2024), both of which dealt with human aspects and impacts of mathematical practices in somewhat different ways. I will describe key content and "big questions" and lay out some considerations for those interested in developing similar courses, leaving plenty of time for questions and discussion.

**Closing:** Thank you - Metro NExT co-Coordinators

### **Zoom Link**

https://stac-edu.zoom.us/j/82942657536



#### **Invited Speaker**

**Dr. Sherli Koshy, Touro University Nevada -** A Mathematician in a Non-Traditional Department

**Abstract**: In this session, I will present how one can use mathematical biology research projects in a medical university to provide non-math students a fulfilling research experience. I will talk about different research projects which used open-source software and existing data sets. Through the projects, the student learnt about ODEs, parallel computing, translation of ODEs to agent-based models, optimization techniques, data visualizations, and basic statistical techniques. The students were able to create high quality research presentations and contribute to manuscripts, enhance computer programming skills, and become proficient in the software. From this session, faculty will get an idea of how they may collaborate with medical universities in their area and students will get a flavor of the different kinds of math research.

**Bio**: Dr. Koshy-Chenthittayil's background as a mathematical educator and researcher for the past decade has given her a unique perspective into the STEM student experience as well as the data driving this experience. She currently works as the Data Analyst with the Office of Institutional Effectiveness at Touro University Nevada, where she advises and helps coordinate faculty and students on a diversity of biomedical, institutional, and educational projects. She also serves as an Adjunct Instructor for the Educational Doctorate program where she oversees the Quantitative Research Methods class. During her time at the university, she has co-authored multiple manuscripts and poster presentations in both evidence synthesis projects and STEMM education. She also currently serves as the Chair for the Education and Outreach Committee for the Association for Women in Mathematics (AWM) and is the recipient of the AWM's 2021 Service Award.

## **Lightning Talk Participants**

James Sherrell

Monica Morales Hernandez

# **Workshop Organizers**

Elena Goloubeva, Webb Institute
Benjamin Gaines, Iona University
Andrew Lee, St. Thomas Aquinas College
Monica Morales Hernandez, Adelphi University

# **Other Mathematical Events and Professional Development Opportunities**

National MAA Project NExT

Application Deadline: April 15, 2025. projectnext.maa.org

MAA Metro NY Section Meeting: Spring 2025 (date TBD)

Further information can be found on the section's website: <a href="http://sections.maa.org/metrony/">http://sections.maa.org/metrony/</a>

Joint Mathematics Meetings: January 8-11 2025, Seattle, WA.