

**The Center for Research in Mathematics
and Science Education at SDSU**
Presents
The 2024 Distinguished Lecture Symposium

Inquiry and Equity in Undergraduate Mathematics Education



A panel discussion with

**Christopher Jett
Estrella Johnson
Luis Leyva
and
Kate Melhuish**



Moderated by
Chris Rasmussen



**Thursday April 25 | 4 p.m. to 7 p.m.
Parma Payne Goodall Alumni Center
5491 Aztec Walk, San Diego, CA 92182**

Free parking will be available in Parking Structure 7 (Follow signs to designated spots)

**4pm- 5pm: Catered Reception
5pm - 7pm: Symposium**



RSVP: <https://forms.gle/sKkcFbs7d981SYND9>

If you require any disability/accessibility accommodations for this event, please contact
crmse@sdsu.edu

Christopher C. Jett

Georgia State University



Title: Advancing Racial Equity and Promoting Black Male Success in Undergraduate Mathematics

Abstract: There have been national calls to advance racial equity in mathematics. One way to do so is to broaden the participation of Black men in mathematics programs. My research agenda draws upon Black men's assets to unearth their unique mathematical talents and highlight their mathematics success in undergraduate contexts.

Bio: Dr. Christopher C. Jett is an Associate Professor of Mathematics Education at Georgia State University. His research agenda examines Black male students' mathematical and racialized experiences. As a scholar committed to racial equity, his work has been funded by the National Science Foundation (NSF), New Venture Fund, and the U.S. Department of Education. He received an NSF CAREER Award, the 2019 Early Career Award from the Association of Mathematics Teacher Educators (AMTE), and a Presidential Early Career Award for Scientists and Engineers (PECASE). He is the author of *Black Male Success in Higher Education: How the Mathematical Brotherhood Empowers a Collegiate Community to Thrive*.

Estrella Johnson

Virginia Tech University



Title: What does good teaching look like?

Abstract: What does “good teaching” look like? It is such a fundamental question, one firmly in the center of educational research’s purview. And indeed, as successive waves of research trends have passed through the discourse, we have produced successive waves of “good teaching” characterizations. But, have any of them been equitable?

Dr. Johnson started at Virginia Tech in 2013, after earning her PhD in Mathematics Education from Portland State University. Her research focuses on the pedagogical practices of mathematicians, with the goal of better understanding and supporting high quality, ambitious teaching in undergraduate mathematics classrooms. Her research and professional interests have since taken a turn towards issues of inclusion and diversity – both in the mathematics classroom and in the sciences more broadly. She is currently the Assistant Dean for Inclusion and Diversity for the College of Science.

Luis Leyva

Vanderbilt University



Title: Supportive-for-All Practices as Necessary yet Insufficient for Equity in Calculus Instruction

Abstract: This talk presents an analysis of undergraduate Black and Latin* students' perceptions of calculus instruction that revealed how practices supportive for all learners do not guarantee equity. I highlight the practice of creating space for questions and mistakes, which is central in inquiry into student thinking, to illustrate this finding.

Leyva's interdisciplinary research examines and seeks to disrupt the influence of interlocking systems of power, including racism and cisheteropatriarchy, that shape classroom teaching, student support, and curricular design in undergraduate mathematics and STEM higher education broadly. As a scholar advancing intersectional justice across mathematical and scientific contexts, Leyva's research centers narratives of oppression, agency, and support among undergraduate STEM students to uncover how educational practices limit and expand learning opportunities that affirm their identities across intersections of race, gender, and sexuality. He draws on critical race theory, women of color feminisms, and queer of color critique to ground his scholarship, both conceptually and methodologically. Leyva's research has been supported by the Bill & Melinda Gates Foundation (Mindset Scholars Network), National Academy of Education/Spencer Foundation, and National Science Foundation.

Kate Melhuish

Texas State University



Title: Can we be authentic to both mathematical proof and students?

Abstract: Inquiry in undergraduate mathematics classrooms often hinges on engaging students in “disciplinary practices.” These practices have been developed and codified by a small group of privileged individuals. In this discussion, I will focus specifically on mathematical proof and the tensions created when taking a critical approach to proof-based courses.

Dr. Melhuish's primary area of research is related to teaching, learning, and assessment in proof-based mathematics. They have worked on a number instrument development projects, studies of conceptual thinking in modern algebra, and projects aimed at promoting improving proof-based courses with attention to authentic activity and inclusive environments. Dr. Melhuish served as PI on three NSF grants and co-PI on three others.