



Mathematics & Mathematics Education Seminar



18 FEBRUARY 2025 (TUE)
1:00 pm to 2:00 pm



MATH JOURNAL ROOM
NIE7-03-16

Considering the role of research on disciplinary practices in mathematics education: The case of problem posing

Introducing students and teachers to specific versions of mathematical practices is often justified by these practices being important for the work of mathematicians. Yet, research on professional disciplinary practices is scarce. This research suggests that disciplinary practices occasionally misalign with educational assumptions and dominant narratives about these practices. In this presentation, I will focus on problem posing - a practice of reformulating an existing mathematical problem or creating new problems. I will illustrate how its investigation among experienced problem posers for prestigious mathematics competitions assisted in delineating some tacit assumptions underpinning educational problem-posing research and developing a novel organizational framework for engaging learners in problem-posing activities. The presentation will conclude with a discussion of the complexity of using research on disciplinary practices in mathematics education.

Speaker's Biography



Dr. Igor' Kontorovich

Dr. Igor' Kontorovich is a mathematics education scholar specializing in teaching, learning, and learning to teach at the secondary and tertiary levels. After a PhD at the Technion - Israel Institute of Technology and a postdoctoral fellowship at the Simon Fraser University, he joined the Department of Mathematics in Auckland, New Zealand. Igor's research aims to offer theoretically-grounded and empirically-based insights to improve the processes of mathematics teaching and learning for all students. These insights often emerge from collaborative projects with educational researchers, research mathematicians, and school teachers. International funding agencies have generously funded his collaborative projects with scholars from Canada, Israel, Italy, New Zealand, Poland, and the UK. The projects' findings have been shared in over a hundred research publications.