



Colloquium Series



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Students' use of generative artificial intelligence (AI) for proving mathematical statements

Abstract: In this talk, I present how undergraduate students use generative artificial intelligence (genAI) in mathematical proving. I share results from a study in which I conducted interviews with three undergraduate students, providing them with selected six mathematical statements. Viewing proving as a human activity, I focus on students' agency in determining the use of genAI, evaluating its generated arguments, and writing their proofs. The analysis reveals the ways in which students use genAI in their proving processes. I also discuss the factors that influence students' use of genAI. The findings indicate the significance of guiding undergraduate students to critically interact with genAI, rather than passively accepting the outputs genAI generates.

Keywords: Artificial Intelligence (AI), Undergraduate Students, Proving, ChatGPT.

Thursday, Nov. 16, 12:05 – 12:50 pm in 8-249