



## Fall Colloquium Series

### Understanding and Advancing Undergraduate Mathematics Instructors' Mathematical and Pedagogical Content Knowledge

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#### **Abstract:**

Mathematics graduate students and instructors are not being supported in acquiring coherent and rich meanings for foundational ideas that surface in undergraduate courses. This leaves future mathematicians unprepared to connect more advanced mathematics topics to foundational ideas, making undergraduate students' mathematics learning experiences less meaningful. In this presentation, I will share select data from a study that explored the mathematical meanings that mathematics PhD students and mathematics instructors hold about ideas of average rate of change and exponential growth. These findings raise questions about the knowledge that is guiding mathematicians' curricular and instructional choices.

**Wednesday, November 4, 1:05 - 1:50pm in 3-2643**