



The Maseeh Mathematics and Statistics Colloquium Series*
presents

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How students use gestures to support their learning

Abstract:

In this talk, I will present evidence that student use gestures in different ways depending on whether the gestures are used to develop an algorithm or whether they extend or apply a previously developed algorithm in a new context. I illustrate these ideas using an example from undergraduate differential equations in which students move through a sequence of Realistic Mathematics Education (RME)-inspired instructional materials to create the Euler method algorithm for approximating solutions to differential equations. In this research, I found that if students' primary goal was algorithmatizing 'from scratch', they used imagery of graphing and gesturing as a tool for reasoning. However if students' primary goal was to make predictions in a new context, they used their previously developed Euler algorithm to reason and used graphs and gestures to clarify their ideas.

Friday, November 30th, 2012 at 3:15pm

Neuberger Hall room 454

(Refreshments served at 3:00 in the presentation room)

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