

You are cordially invited to attend the
MSU Mathematics Education Colloquium



Presented by:
Professor Elizabeth de Freitas

Manchester Metropolitan
University

Wednesday,
April 18, 2018

3:30 – 5:00 p.m.
252 Erickson Hall
MSU

What is a Mathematical Concept?

This presentation explores alternative approaches to the question: What is a mathematical concept? Philosophical and historical insights about the nature of mathematical concepts are discussed, with special attention to how concepts emerge and are established through particular mathematical practices. Such work shifts our attention to the material labour and onto generative nature of mathematical activity. New mathematical concepts emerge and old ones are creatively deformed when embodied practices redistribute what is considered sensible and perceptible. I discuss the pedagogical implications of this approach, and the important way such theoretical framing shifts our thinking about mathematics dis/ability. My aim is to rescue mathematical concepts from the staid curricular lists which entomb them, and to consider examples of how we might reanimate concepts in classroom activity.

Elizabeth de Freitas is a Professor of STEM Education at the Education and Social Research Institute in Manchester Metropolitan University. Her research is focused on mathematics education, the history and philosophy of mathematics, and social science research methodology. She has published five books and over fifty articles and chapters on a range of scholarly topics. Her three recent books are *What is a mathematical concept?* (2017, Cambridge University Press), *Alternative theoretical frameworks for mathematics education research* (2016, Springer Verlag), and *Mathematics and the body: Material entanglements in the classroom* (2014, Cambridge University Press).

The Program in Mathematics Education sponsors this event.