

You are cordially invited to attend the  
*MSU Mathematics Education Colloquium*



Presented by:  
Keith Weber

Rutgers University

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Wednesday,  
November 19, 2014

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

### *Justification and Proof in Mathematics Education Research*

With Andreas Stylianides and Gabriel Stylianides, I am writing a chapter on justification and proof in the forthcoming NCTM Handbook of Research on Teaching and Learning Mathematics. The purpose of this talk is to present a summary of some of the content of this chapter that discusses recent developments in this area. In particular, in this talk, I will discuss (i) three theoretical stances that researchers have used to investigate justification and proof, (ii) why proof continues to play a marginal role in American K-12 classrooms even though policy documents endorse a more central role for proof, and (iii) why our empirical understanding of students' difficulties with proof is less secure than many mathematics educators believe.

Keith Weber is an associate professor of mathematics education at Rutgers University. His research focuses on argumentation and proof, mostly at the collegiate level. He has received several awards for this research, including an Early Career Award from the National Science Foundation, the 2010 Selden Prize from the MAA for outstanding research in undergraduate mathematics education, and the Janet Duffin Award for outstanding contribution to the 2012 volume of Research in Mathematics Education. He received the Best Paper Award at the annual Conference for Research in Undergraduate Mathematics Education in 2009, 2010, and 2014.

*The Program in Mathematics Education sponsors this event.*