

PRIME & CREATE for STEM Presents: **Co-Integrate Mathematics Series**

Willie Wong

Willie is in his fifth year as an assistant professor in the math department. According to his Form D, his day job should be the geometric analysis of hyperbolic partial differential equations. When not putting out Calculus II related fires, he relaxes by blowing up naive conjectures on MathOverflow.



Computational Labs in Calculus II: Practice, Philosophy, and Research

We share our experience deploying computer-based lab activities in mainstream Calculus II instruction. Our course, MTH133, is the second semester in our main calculus sequence, and focuses on integral calculus, sequences and series, and the calculus of planar curves. This year, the labs are in use across all MTH133 sections. We will begin our presentation with a detailed demonstration of one of the labs, mainly to showcase the student experience. We will follow this up with a discussion of our philosophy toward the "place" the labs occupy in calculus instruction, specifically in relation to the extant curriculum. We will also describe ongoing research aimed at understanding students' learning experiences with the labs, as well as some of our findings.

Andy Krause

Andy co-coordinates teaching professional development for ULAs, GTAs, post-docs, and new faculty in the Department of Mathematics. He also teaches a variety of large-lecture introductory courses, usually Calculus 1, and strives to incorporate research-based teaching practices in these challenging teaching contexts.



January 30, 2020

**115 Erickson, Michigan State
University**

12:00 p.m. – 1:00 p.m.



College of Natural Science
Program in Mathematics Education

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