



Cornell University

K-12 Education and Outreach, Mathematics Department

MATH 5080 – Mathematics for Secondary School Teachers

May 9, 2015 ◆ 9:00 am – 2:30 pm (lunch provided) ◆ 406 Malott Hall

8:45 – 9:00 am Bagels & Juice (provided)

9:00 – 9:15 am Introductions

9:20 – 10:20 am Fermat's Last Theorem: The History and the Math

Expect to hear some math, some history, with more emphasis on the old than the new.

Speaker: Ravi Ramakrishna (Cornell University)

10:30 – 11:30 am Some Applications of Mechanics to Mathematics

The application of mathematics to mechanics (classical physics) is well known – just pick up any physics book. But the title of this talk is not a typo! We will explore how to use mechanics to solve some simple problems of mathematics.

Speaker: Timothy Healey (Cornell University)

11:45 am – 12:30 pm Math and Real-World Experiences

A former wall street trader will share real-world trades that he uses as “experiences” to teach math to secondary students. Included will be a discussion of the specific Common Core State Standards that students master through their learning.

Speaker: Lee Kaltman (Entrepreneur)

12:30 – 1:20 pm Lunch (provided) with Topology Festival Participants

1:30 – 2:30 pm Math in Glass – The Mobius Loop, Klein Bottle, and Torus

Topology has been called rubber math -- it's where surfaces can be stretched and bent without tearing. From it beautiful structures and astonishing theorems can be grown. You've probably made paper Möbius loops and may have seen it's cousin, the Klein bottle. Using Pyrex glass, we've made complex arrangements of topological shapes, including triple Klein bottles and the solution to Spivak's Hole-through-a-hole-in-a-hole. So how do you make a glass Klein Bottle? And what is a hole through a hole in a hole? Come this talk and see some amazing math, frozen into glass!

Speaker: Clifford Stoll (Acme Klein Bottles)

RSVP by Thursday, April 30, 2015

Registration Form: <https://www.math.cornell.edu/m/Community/5080#form>

Questions? Contact Mary Ann Huntley

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