



The Olivetti Club Presents
Timothy Goldberg

Tuesday 4:25 pm
16 March 2010
406 Malott

Bicycle Math

Some pretty interesting mathematics, especially geometry, arises naturally from thinking about bicycles and how they work. Why exactly does a bicycle with round wheels roll smoothly on flat ground, and how can we use the answer to this question to design a track on which a bicycle with square wheels can ride smoothly? If you come across bicycle tracks on the ground, how can you tell which direction it was going? And just what was the answer to Keith Devlin's question about the area between bicycle tracks, anyway? We will discuss the answers to these questions, and give lots of illustrations.

This talk should be accessible to undergraduates. Only an introductory knowledge of complex numbers and vector calculus will be required.

Refreshments will be served at 3:55 pm in the math lounge.