

2015 Kieval Lecture Series

Dr. Jonathon Brundan,
University of Oregon

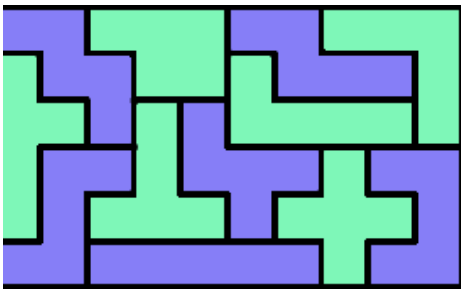
Cardioids Ski Slopes and Bernoulli

If a skier could design the hill so as to get from a point at the top to a point at the bottom in the fastest way, what curve would be the best? We will discuss a brilliantly imaginative solution to this problem by Jean Bernoulli in 1696. Despite being Swiss, he was likely not much of a downhill skier, so he probably didn't appreciate its significance for the modern sportsperson.



Thursday, May 28th, 3:30 PM, Taylor 29/30

Counting Tilings Using Determinants



There are two ways to tile a 2x2 board with 2x1 tiles. There are 36 ways to tile a 4x4 board with 2x1 tiles. So, how many ways are there to tile an 8x8 board with 2x1 tiles? We'll discuss a neat way to work this out using techniques from graph theory and linear algebra – though no knowledge of these topics will be assumed.

Friday, May 29th, 3:30 PM, Taylor 29/30

Lunch hosted by the Math Club and Math Department:
Friday, May 29th, 12:00-1:30 PM, CE 105

For more information, contact Dr. Kemble Yates: 541-552-6578, or visit:
<http://www.sou.edu/math/kieval/kieval.html>