The Reese T. Prosser

Mathematics Lecture Series

Presents

The Mathematics of Crime

Thursday, October 4, 2012 7:00 - 8:00 PM Filene Auditorium Moore Hall



Director of Applied Mathematics
University of California Los Angeles

There is an extensive applied mathematics literature developed for the biological and physical sciences. Our understanding of social science from a mathematical standpoint is less developed, but also presents some very interesting problems, especially for young researchers. This lecture uses crime as a case study for using mathematical techniques in a social science application covering a variety of methods. From an application standpoint we will look at residential burglaries and gang crimes. We will consider both "bottom up" and "top down" approaches to understanding the mathematics of crime, and how the two approaches could converge to a unifying theory.



Satellite images of crime in the San Fernando valley, with "realistic" hotspots overlaid.



Justice and Divine Vengeance Pursuing Crime; Pierre-Paul Prud'hon (1758–1823)

The Reese Prosser Memorial Lectures were inaugurated in 2002 by the Department of Mathematics at Dartmouth College to honor their long time colleague Reese Prosser. This lecture series, endowed by the late Nancy Prosser and her family, is intended to introduce the general public to mathematical research related to their daily lives.