Stanford University  
Departments of Mathematics and Statistics

Probability Seminar

4:15pm, Monday, February 27, 2012  
Sequoia Hall Room 200
Cookies served at 3:45pm, 1st Floor Lounge.

Speaker: Peter Winkler, Dartmouth/MSRI

Title: New Extremes for Random Walk on a Graph

Abstract:
Random walk on a graph is a beautiful and (viewed from today) classical subject with elegant theorems, multiple applications, and a close connection to the theory of electrical networks. The subject seems as lively now as ever, with lots of exciting new results.

We will discuss recent progress on some extremal problems. In particular, how long can it take to visit every edge of a graph, or to visit every vertex a representative number of times, or to catch a random walker? Can random walks be scheduled or coupled so that they don’t collide?

Work included is by or with Omer Angel, Jian Ding, Agelos Georgakopoulos, Ander Holroyd, Natasha Komarov, James Lee, James Martin, Yuval Peres, and David Wilson.