Stanford University  
Departments of Mathematics and Statistics  

Probability Seminar  

*** Note Special Day ***  
Joint Event with Applied Math Seminar  
4:15pm, Wednesday, November 9, 2011  
*** Note Change in Location ***  
Math Building 01-380, Room 380-X  

Speaker: Lionel Levine, Cornell University  

Title: Logarithmic fluctuations from circularity  

Abstract:  
Starting with \( n \) particles at the origin in \( Z^d \), let each particle in turn perform simple random walk until reaching an unoccupied site. Lawler, Bramson and Griffeath proved that with high probability the resulting random set of \( n \) occupied sites is close to a ball. We show that its fluctuations from circularity are, with high probability, at most logarithmic in the radius of the ball, answering a question posed by Lawler in 1995 and confirming a prediction made by chemical physicists in the 1980s.  

This is joint work David Jerison and Scott Sheffield.