Kempner Colloquium

CRITICAL PARAMETERS OF LATTICE MODELS

Zhongyang Li

(Cambridge)

A lattice model is a probability measure on configurations of a graph parametrized by a continuous variable. The critical parameter is the parameter when the phase transition occurs, i.e., when the macroscopic properties of a lattice model change sharply with respect to the parameter.

I will talk about three different lattice models including percolation, Ising model and self-avoiding walk, as well as recent progress on identifying the exact values of their critical parameters or bounding their critical parameters. Part of the talk is based on joint work with Geoffrey Grimmett.

January 6, 2014 4:00 p.m. MATH 350