Speaker:  Takashi Kumagai,  Kyoto University

Title:  Quenched and averaged tails of the heat kernel of the two-dimensional uniform spanning tree

Abstract:

We discuss detailed properties of the heat kernel for simple random walk on the two-dimensional uniform spanning tree. We show that log-log fluctuations occur around the leading order polynomial behavior for the on-diagonal part of the quenched heat kernel. We also give two-sided estimates for the averaged heat kernel. Notably, these demonstrate a discrepancy between the exponents that appear in the off-diagonal parts of the quenched and averaged versions of the heat kernel.

This talk is based on on-going joint work with M.T. Barlow and D.A. Croydon.