

Time: Tuesday May 3rd, 2011 4:30pm

Location: Buchanan A203

Excited Random Walk

Sudip Paul, University of Washington

Excited random walk or cookie random walk is a variation of the nearest neighbor random walk in \mathbb{Z}^d in which it is assumed that there are a pile of cookies at each lattice point. Whenever it encounters a lattice point it 'eats' the topmost cookie and its probability of visiting the neighbors change accordingly. We will talk about the asymptotic properties of this walk :like when it is transient or has a nonzero velocity or satisfies a CLT. In one dimension the problem is almost solved but in higher dimensions it is considerably more difficult.