ABSTRACT OF THE TALK

In this talk, we introduce several random walk models on 2d lattices with lattice spacing $h$. A common property of these models is: as $h$ goes to 0, the distribution of the point where the walk exits a simply connected domain (i.e., discrete harmonic measure) converges weakly to the exit distribution of Brownian motion in the same domain (i.e., continuous harmonic measure). We present a conjecture by Kennedy about the leading order term in the difference between these two harmonic measures. We give a proof of the conjecture for a random walk with steps uniformly distributed over a disk of $h$. This is a joint work with Tom Kennedy.

BIOGRAPHY

Jianping Jiang is Global Postdoctoral Fellow at NYU Shanghai. He holds a PhD from University of Arizona. His research interests are probability theory and statistical physics.