



THE UNIVERSITY OF  
**CHICAGO**

Department of Statistics  
**DISSERTATION PROPOSAL**

---

**CHANGJI XU**

Department of Statistics  
The University of Chicago

**Random Walk Among Bernoulli Obstacles**

**THURSDAY, May 24, 2018, at 3:30 PM**

Jones 111, 5747 S. Ellis Avenue

**ABSTRACT**

We consider a random walk on  $\mathbb{Z}^d$ ,  $d \geq 2$  with random Bernoulli obstacles, where the random walk is killed when it hits an obstacle. Conditioned on survival for a long time, the most prominent phenomenon is a strong localization effect that the random walk will be confined to a small island. I will present some recent results on the confinement property and the geometry of this island.

---

For information about building access for persons with disabilities, please contact Laura Rigazzi at 773.702-0541 or send an email to [lrigazzi@galton.uchicago.edu](mailto:lrigazzi@galton.uchicago.edu). If you wish to subscribe to our email list, please visit the following web site: <https://lists.uchicago.edu/web/subscribe/statseminars>.