

# Probability Seminar

## *Jigsaw percolation on the Hamming torus*

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Tuesday, February 2, 2016  
2:30-3:30pm, David Rittenhouse Lab 3C8 (Penn)

Bootstrap percolation on a graph is a simple to describe yet hard to analyze process. It begins with some initial configuration (open or closed) on the vertices. At each subsequent step a vertex may change from closed to open if enough of its neighbors are already open. For a random initial configuration where each vertex is open independently with probability  $p$ , how does the probability that eventually every vertex will be open change as  $p$  varies?

The large neighborhood size of the Hamming torus leads to a distinctly different flavor than previous results on the grid and hypercube. We will focus on Hamming tori with high dimension, giving a detailed description of the long term behavior of the process.