Discrete Percolation

Date Tuesday, January 25

Time 4 pm

Location 317 Mudd

Abstract: We consider graph processes in which a graph on n vertices evolves from empty to full. For our processes there is a critical "time" at which a phase transition occurs and a giant component emerges. We study the behavior near the critcal time. In the classical Erdős-Rényi model there is strong theoretical understanding including a parametrization of the critical window. We also discuss the Bohman-Frieze process for which our theoretical understanding is fairly good and the Product-Rule process for which computer simulation is fascinating but theoretical understanding nonexistent.