## 1163-05-1267 Sean English\* (senglish@illinois.edu), Calum MacRury and Pawel Pralat. Zero Forcing Randomly on the Random Graph.

The zero forcing process is an iterative graph coloring process in which at each timestep a colored vertex with a single uncolored neighbor can force this neighbor to become colored. In this talk, we will consider probabilistic zero forcing, where a blue neighbor has some non-zero probability of forcing a white vertex at each step.

We study probabilistic zero forcing on the Erdős-Réyni random graph, G(n, p) and determine bounds on the propagation time, or the total number of rounds necessary to color the entire graph blue, when starting with a single blue vertex. (Received September 15, 2020)