

Seminar/Talk

Percolation on finite graphs

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Host: Laszlo Erdös & Jan Maas

Given a graph G and a parameter p in [0,1], Bernoulli bond percolation on G is defined as the random subgraph of G obtained by retaining each edge independently with probability p. One of the most basic results in percolation theory, a simple consequence of Kolmogorov's zero-one law, is that if G is infinite and connected, then there is some critical probability p_c which governs the emergence of infinite clusters in percolation: if pp_c then there is. If G is a finite graph, then essentially everything in the previous paragraph breaks down. Nevertheless, there are still a lot of interesting results one can prove about percolation on finite graphs, and in this talk I will discuss some of the ways of trying to make the notion of critical probability reasonable for finite graphs. In particular, I will discuss some recent results that essentially determine this critical probability for any finite G.Based on joint work with Micha Christoph and Patryk Morawski.

Monday, November 30, 2026 05:00pm - 06:00pm
Office Bldg West / Ground floor / Heinzel Seminar Room (I21.EG.101)

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