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Announcement of a Seminar in the Summer Semester 2024

Random Graphs/Zufällige Graphen

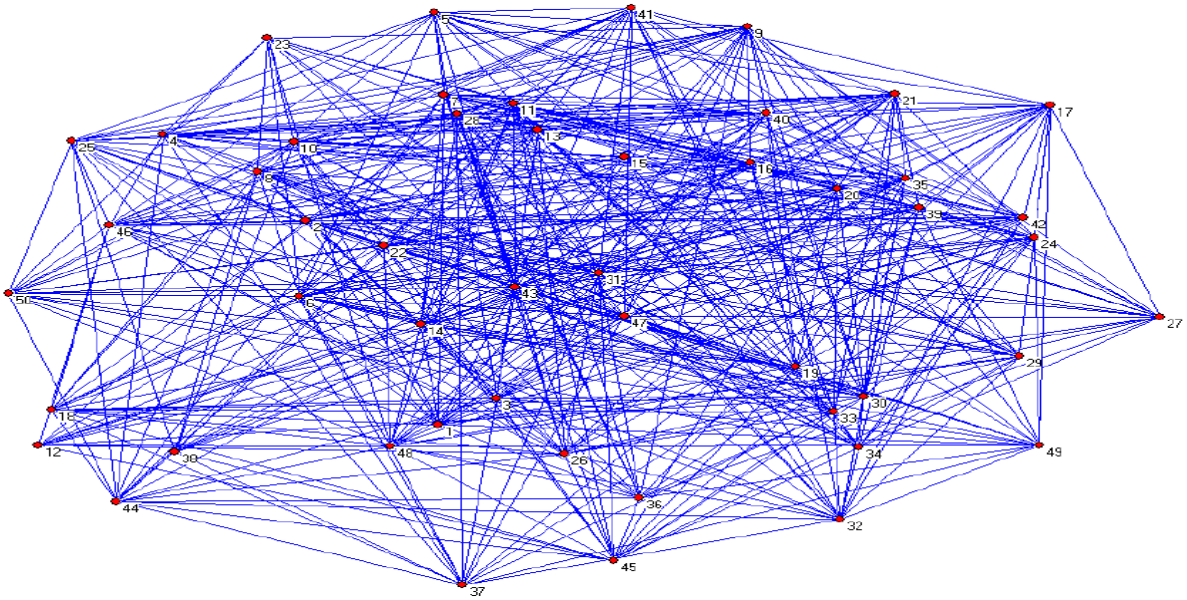
Time & Place: Mon 09:45-11:15, SR 2.058 from 04/15 until 07/22

Preliminary meeting: February 13, 13:15-14:00, Room 2.071

Content:

The seminar deals with several random processes on a locally finite and connected graph. Key examples are random walks, spanning trees, the random cluster and the Potts (Ising) model from statistical physics, percolation models and the Erdős–Rényi graph. A common feature of all these models is that it is easy to ask many natural questions but rather hard to give rigorous answers. The seminar will be concerned with a variety of probabilistic properties of some of the above models and the techniques used to study them.

The seminar will be based on the book "Probability on graphs" by Geoffrey Grimmett (Cambridge University Press, 2010). A successful participation requires a sound knowledge of measure theoretic probability.



The Erdős–Rényi random graph with 100 nodes.