



Kolloquium über Reine Mathematik

Einladung zu einem Vortrag

Dienstag, 02.12.2025

17 Uhr, Geom H4

Prof. Jack Hanson
(Universität Hamburg)

Chemical distances and the incipient infinite cluster in percolation

Abstract:

Physicists have been interested in percolation since at least the 1970s as a model for transport properties of disordered media. This has led to tantalizing conjectures about the model -- for instance, the behavior of random walk on percolation clusters -- which require us to understand aspects of its large-scale geometry. We will discuss several of these, particularly focusing on the behavior of the chemical (graph) distance and especially in the high-dimensional setting. Here a recent preprint of the speaker finds the exact limiting distribution of the chemical distance between two distant vertices, conditional on them lying in the same percolation cluster.

**Vor dem Vortrag (ab 16.30 Uhr) stehen im Foyer vor Hörsaal H4
Kaffee und Tee bereit.**