



Sommersemester 2025

Dresdner Mathematisches Seminar

Prof. Dr. Peter Mörters

Universität zu Köln, Mathematisches Institut

The phase transition in geometric random graphs

Abstract:

In this talk we review the current research on phase transitions in geometric random graph models. In these models vertices are given by the points of a homogeneous Poisson point process in $\mathbb{R}^d$ equipped with weights following a heavy tailed distribution. Each pair of vertices independently forms an edge with a probability decaying as a function of the weights divided by the distance of the vertices. We give necessary and sufficient conditions under which there is a percolation phase transition and, if there is one, we investigate its sharpness.

Mittwoch, 25.06.2025, 17:00 Uhr – Willers-Bau, Raum A 124

Leitung: Prof. Dr. René Schilling

Vor dem Vortrag findet **ab 16:30 Uhr** ein gemeinsames **Kaffee-/ Teetrinken** **vor dem Vortragsraum WIL A 124** statt.

Bereich Mathematik und Naturwissenschaften

Fakultät Mathematik