Institute for Applied Mathematics, Bonn University

Oberseminar Stochastik

Thursday, 23 April 2026, 16:30
Lipschitz-Saal (LWK 1.016)

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Limit theorems for the random connection model

The random connection model is a spatial random graph, whose vertices are the points of a stationary Poisson process in Euclidean space and where each pair of distinct vertices is independently connected by an edge with a probability depending only on the relative position of the two vertices. In the weighted random connection model, the underlying Poisson process is marked and the edge probabilities take also the marks of the potential endpoints into account. The goal of this talk is to discuss several limit theorems for the random connection model. Components, large degrees, and edge length functionals within observation windows are considered and the asymptotic behaviour for increasing observation windows is studied.