



Oberseminar Stochastik

Am **Dienstag, 8. Juli 2025**, wird

Réka Szabó (University of Groningen)

einen Vortrag halten mit dem Titel:

„Percolation on the stationary distributions of the voter model with stirring“

Abstract:

The voter model with stirring is a variant of the classical voter model with two possible opinions, 0 and 1. Each site updates its opinion at rate 1 by choosing a neighbour uniformly at random and adopting their opinion. In addition, each pair of neighbouring sites exchanges their opinions at rate $v \geq 0$, called the stirring parameter. This model was introduced in [Astoquillca '24], where the set of extremal stationary measures on the d -dimensional lattice were described. For $d \geq 3$ we consider a site percolation model on configurations sampled from the stationary measures, where the set of occupied sites is the set of voters with opinion 1. We show that the family of (extremal) stationary measures exhibits a non-trivial percolation phase transition in the density of 1s for large stirring parameters. Furthermore, as the stirring parameter approaches infinity, the critical density of this phase transition converges to the critical density for Bernoulli site percolation. Joint work with Jhon Astoquillca and Daniel Valesin.

Zeit: Dienstag, 8. Juli 2025, 14 Uhr c.t.

Ort: Raum 05-136, Institut für Mathematik, Staudingerweg 9, 55128 Mainz

Alle Interessierten sind herzlich eingeladen!

gez. Matthias Birkner