Fachbereich 08 – Physik, Mathematik und Informatik

JOHANNES GUTENBERG UNIVERSITÄT MAINZ

INSTITUT FÜR MATHEMATIK

M. Birkner / L. Hartung / A. Klenke

Oberseminar Stochastik

Am **Dienstag, 27. Januar 2026**, wird

Flavio Dalessi (Universität Basel)

einen Vortrag halten mit dem Thema:

“Branching Random Walk in Random Environment”

Abstract:

We introduce the branching random walk in a spatially random branching environment. In this model, particles move according to a continuous-time simple random walk and, independently, branch at spatially dependent random rates. After discussing known properties of the model, we focus on establishing the (quenched) tightness of the maximal displacement around its median. Our approach extends to the discrete-space setting the arguments developed by Černý, Drewitz, and Oswald (2025) to prove tightness of the maximum of the branching Brownian motion in random environment. Specifically, we exploit the connection between the branching random walk and the randomized discrete Fisher-KPP equation through a study of the latter under different initial conditions.

Zeit: Dienstag, 27. Januar 2026, 14 Uhr c.t.

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

Alle Interessierten sind herzlich eingeladen!

gez. Matthias Birkner