



Oberseminar Stochastik

Am **Dienstag, 20. Oktober 2026**, wird

Herr **Arnab Chowdhury**
(Tata Institute of Fundamental Research-CAM), Bangalore

einen Vortrag halten mit dem Thema:

“Fixed points and heavy-tailed extreme level sets of branching Brownian motion”

Abstract:

In the first part of this talk, we discuss the fixed point problem of branching Brownian motion (BBM). We establish a complete characterization of the fixed points of BBM with critical and supercritical drifts under no additional assumptions besides it being locally finite almost surely. In particular, we do not assume finite intensity or the finite top particle conditions. We also give a full characterization of the domain of attraction of the fixed points of BBM. The main idea is to use the F-KPP equation together with the Bramson’s ψ -estimate to analyze the Laplace functionals of BBM, and a finer analysis using a carefully designed Brownian thinning technique. This part is based on a joint work with Xinxin Chen, Atul Shekhar and Shuo Zhu. In the second part, we turn to the extreme level sets of BBM. We show that these level sets exhibit heavy-tailed behaviour, and we use this to establish a large-deviation result for their growth.

Zeit: Dienstag, 20 Oktober 2026, 14 Uhr c.t.

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

Alle Interessierten sind herzlich eingeladen!

gez. Lisa Hartung