

Institute for Applied Mathematics, Bonn University

Oberseminar Stochastik

Thursday, 19 November 2026, 16:30

Lipschitz-Saal (LWK 1.016)

Ran Tao

MPI Leipzig

An SPDE-based proof on jointly invariant measures for the KPZ/stochastic Burgers

We develop an SPDE-based proof of the jointly invariant measures for the KPZ/stochastic Burgers equation in the periodic and full-space settings. In contrast to prior proofs that rely on the Cole–Hopf transform and integrable semi-discrete approximations to the coupled system (Groathouse–Rassoul-Agha–Seppäläinen–Sorensen; Corwin–Gu–Sorensen), our method works directly at the level of the coupled SPDEs, utilizing the established one-point invariant measures and time-reversal of energy solutions of KPZ equation.

This is based on joint work with Alex Dunlap, Nicolas Perkowski, and Hendrik Weber.