



Institut für Mathematik

# Seminar zur Stochastik

Dienstag, 15. Mai 2018  
14 Uhr c. t.  
SR 114, August-Bebel-Str. 4

**Herr Dr. Sebastian Riedel**  
(Technische Universität Berlin)

## “Rough paths and random dynamical systems”

**Abstract:** Rough paths theory (in the sense of Lyons) is a pathwise calculus which can be used to solve stochastic differential equations. We prove that rough differential equations naturally induce random dynamical systems provided the driving path satisfies a version of the cocycle property. This gives rise to the study of new random dynamical systems which are not necessarily Markovian. In particular, we can study convergence to equilibrium, the existence of attractors and stable manifolds for SDEs driven by a fractional Brownian motion.

Joint work with I. Bailleul (Rennes) and M. Scheutzow (Berlin).

**Alle Interessenten sind herzlich eingeladen**

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