



Institut für Mathematik

Seminar zur Stochastik

Donnerstag, 7. Mai 2026

14:15 Uhr c.t.

SR 1086, Inselplatz 5

Dr. Helena Katharina Kremp

(Weierstraß-Institut Berlin)

“Overcoming the spatial order barrier for nonlinear SPDEs with additive space-time white noise”

Abstract: When approximating solutions of SPDEs, a basic challenge is that the rate of convergence is limited due to the low time and space regularity of the solution. Considering semilinear SPDEs with additive space-time white noise in space dimension $d=1$, we introduce a novel numerical scheme which improves the spatial convergence rate from the classical rate $1/2$ to rate $3/2$. The temporal convergence rate is proven to be $3/4$ for our scheme, which enhances the classical rate $1/4$ using ideas of previous works (Jentzen, Kloeden '08, Jentzen '11, Djurdjevac, Kremp, Gerencser '24). The talk is based on a work in progress together with Lukas Anzeletti and Mate Gerencser.

Alle Interessierte sind herzlich eingeladen!

Kontakt:

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