



Wintersemester 2018/2019

Dresdner Mathematisches Seminar

Prof. Dr. Markus Reiß

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Nonparametric estimation for SPDEs via localisation

We shall first discuss differences for parametric drift estimation between stochastic ordinary and partial differential equations (SODEs/SPDEs). For parabolic SPDEs the usual approach is based on the spectral decomposition of the generator, which is assumed to be known (at least for the main symbol). For nonparametric problems this is no longer feasible. We consider the specific problem of estimating the space-dependent diffusivity of a stochastic heat equation from time-continuous observations with space resolution h . The rather counterintuitive result and its efficiency as $h \rightarrow 0$ will be discussed in details. Finally, more general SPDE models will be treated.

Joint work with Randolph Altmeyer, Berlin.

Mittwoch, 14.11.2018, 17:00 Uhr - Willers-Bau B 321

Leitung: Prof. Dr. Anita Behme