



Institut für Mathematik

Seminar zur Stochastik

Dienstag, 29. Mai 2018

14 Uhr c. t.

SR 114, August-Bebel-Str. 4

Herr Prof. Dr. Yong XU
(derzeit Universität Potsdam)

“Averaging principles for non-autonomous slow-fast systems of stochastic reaction-diffusion equations driven by Poisson random measures”

Abstract: In this talk we talk about the averaging principle for a slow-fast system of stochastic reaction-diffusion equations with Poisson random measures. The coefficients of the equation are assumed to be functions of time, and some of which may be periodic or almost periodic. Then, the existence of a time-dependent evolution family of measures associated with the fast equation is studied, and it is proved that the evolution family of measures is almost periodic. Next, using the characteristics of almost periodic function, an alternative way to define the averaged coefficient is found and the averaged equation is given. Finally, the validity of the averaging principles is verified.

Alle Interessenten sind herzlich eingeladen

Kontakt:

Björn Schmalfuß
Lehrstuhl für Wahrscheinlichkeitstheorie
Institut für Mathematik
Ernst-Abbe-Platz 2
07743 Jena