



# Einladung zum Oberseminar Wissenschaftliches Rechnen

Julius-Maximilians-Universität Würzburg  
Lehrstuhl für Wissenschaftliches Rechnen IX

*Prof. Dr. Ekaterina Kostina*

Fachbereich Mathematik und Informatik, Philipps-Universität Marburg

## Parameter Estimation for Forward Kolmogorov Equation with Application to Nonlinear Exchange Rate Dynamics

We present our approach for the modeling nonlinear dynamics of the real exchange rate which is based on a Fokker-Plank (forward Kolmogorov) equation with a bistable diffusion term.

The aim of modelling is to determine how the market indicators influence the dynamics of the exchange rate. Our computations have shown that the modelling of the market indicators as simple products is not sufficient. High instability make it a real challenge to handle this problem. We present numerical methods for parameter estimation for forward Kolmogorov equation and for simulation of more sophisticated and flexible models for the effect of the market indicators.

Ort: Raum 30.03.007 (3. Stock) (Mathegeb. 30 West) Zeit: Dienstag, 16.04.2013, um 14.00 Uhr

Zu diesem Vortrag laden wir Sie herzlich ein.

gez. Prof. Dr. Alfio Borzi