

In the **first half** of the winter term 2015/16 I will teach the lecture course entitled

Large deviations for randomly perturbed dynamical systems

Topics: In this course we will consider dynamical systems perturbed by small Gaussian noise. They are described by stochastic differential equations. Our main goal is the treatment of the Freidlin-Wentzell theory of the asymptotics of exit times of diffusions from domains of attraction. It will be based on a more general account of the theory of large deviations for stochastic differential equations which will be tackled by Haar-Schauder expansions of random functions.

Prerequisites: *Stochastic processes (Stochastik II); elements of stochastic analysis*

Time and place:

Lectures and Tutorials: Monday, 11 – 13 h, Rudower Chaussee 26, room: 1'304
13 – 15 h, Rudower Chaussee 26, room: 1'304
Wednesday, 09 – 11 h, Rudower Chaussee 26, room: 1'304

First Lecture: October 14, 2015

Literature: to be discussed during the course.

Office hours: by arrangement; Rudower Chaussee 25, room: 1.218