Prof. Dr. Markus Reiß
www.math.hu-berlin.de/~mreiss

Humboldt-Universität zu Berlin
Institut für Mathematik

Announcement

In summer term 2024 I am reading

Stochastic Analysis (Stochastic Processes II)

Lectures:

Tuesday, 11h15 – 12h45, Rudower Chaussee 26 (Schrödingerzentrum), room 0'307
Thursday, 13h30 – 15h00, Rudower Chaussee 26 (Schrödingerzentrum), room 1'304

First lecture: Tuesday, 16 April 2024

Exercise class: (with Sascha Gaudlitz)

Tuesday 13h30 – 15h00, Rudower Chaussee 26 (Schrödingerzentrum), room 1'304

First class: Tuesday, 16 April 2024

Topics:

Construction and properties of Brownian motion, martingales in continuous time, stochastic integration, Itô formula and calculus, change of measure, stochastic differential equations, connection to partial differential equations

Prerequisites:

mandatory: Stochastik II (Stochastic Processes I); useful: Functional Analysis

Literature: (all available at HU in the library and as E-book)

Karatzas, I. and Shreve, S., *Brownian Motion and Stochastic Calculus*, Springer
Klenke, A., *Wahrscheinlichkeitstheorie*, Springer
Le Gall, J.-F., *Mouvement brownien, martingales et calcul stochastique*, Springer
Øksendal, B., *Stochastic Differential Equations,* Springer
Revuz, D. and Yor, M., *Continuous martingales and Brownian motion,* Springer
Rogers, L. and Williams, D., *Diffusions, Markov Processes, and Martingales 1 & 2,* Wiley