Prof. Dr. D. Becherer
http://www.math.hu-berlin.de/~becherer
Institute of Mathematics
Stochastics

In summer term 2014 I shall give the following lecture

Selected topics of stochastic analysis

The course will be taught in English.

Content:

Backward stochastic differential equations and stochastic analysis for processes with jumps: Lévy processes & random measures, Itô-formula and stochastic differential equations with jumps, backward-SDEs, (classical Lipschitz BSDE and beyond: quadratic, jumps….), non-linear Feymann-Kac, applications to stochastic optimal control and finance as time permits.

Prerequisites:

Itô-calculus as taught in the lecture "Stochastische Analysis" (aka BMS lecture "Stochastic Processes II"): martingale theory in continuous time, stochastic integration, stochastic differential equations and martingale representation wrt. Brownian motion.

References *will be given during the lecture.*

Lecture: Thursday, 11 – 13, RUD 26, room 1‘304

First lecture: **April 17, 2014**

Office hours: tba