STA450/2047

From TorontoMathWiki

Stochastic Calculus

Instructor: Jeremy Quastel Office Hours: W 2-3 BA6224

Suggested Texts: Oksendal, Berestycki

Midterm: Mar 26 in class

Evaluation: Course grade
$= \max(0.3HW + 0.3Mid + 0.4Final, 0.2HW + 0.2Mid + 0.6Final)$

Homework mark is best 4 out of 5

Course Outline:

1. Brownian motion
2. Martingales
3. Stochastic Integrals
4. Stochastic Differential Equations
5. Connections to partial differential equations
6. Martingale Problem
7. Diffusion approximations of Markov chains
8. Applications in finance, mathematical biology, etc.

Homework 1 (due Sep 23)

Homework 2

Homework 3

Homework 4

Lecture Notes (http://www.math.toronto.edu/quastel/Stochastic)