

PhD course in probability (Lecturer: Erik Broman)

spring 2015

Latest update:

11/3: Posted solutions to HA1 and posted HA2. Fixed a typo in exercise 3 of HA2 at 4:17 pm (thanks Dan :)).

Schedule:

A link to the schedule:

<https://se.timeedit.net/web/uu/db1/schema/ri157XQQ589Z50Qf57083gZ6y6Y7809Q5Y41Y0.html>

or even better, go [here](#), and search for my name. Observe that this schedule will likely change, so make sure you check back regularly.

Home assignments:

Home assignment 1 can be found [here](#). The solution can be found [here](#).

Home assignment 2 can be found [here](#).

Some pictures:

The first [picture](#) shows how we go from site-percolation on the triangular lattice, and end up with a percolation model on the faces of the hexagonal lattice.

The second [picture](#) shows a box in the hexagonal lattice.

Further information:

For more information (including a short overview of the topics we will cover) and planning of lectures, please go [here](#). Again, please observe that this will be updated and adjusted during the course, so make sure that you check back regularly.

Exam

Home assignments. They will be posted here as they are given.

Purpose of course

To gain basic knowledge of 'modern' probability theory.

Literature:

For measure and Integration Theory:

D. Williams: Probability with martingales, Cambridge Mathematical Textbooks
Cambridge University Press, Cambridge, 1991. ISBN: 0-521-40455-X; 0-521-40605-6

G. B. Folland: Real Analysis, Modern Techniques and Their Applications

For convergence:

R. Durrett: Probability: Theory and Examples

G. Grimmett and D. Stirzaker: Probability and Random Processes

P. Billingsley: Convergence of Probability Measures