

Schedule for Advanced computational and statistical methods (Phys. 801)

A course in doctor of Philosophy in Physics graduate program

October 10, 2009

Course plan

Week	Date	Lectures	Student projects
5	Mar. 23-27	Introduction to inverse problem	reading assignment
6	Mar. 30- Ap. 3	Bayesian inversion technique	-
7	Apr. 6-10	Bayesian inversion technique	Review paper
8	Apr. 13-17	Monte Carlo simulations	-
9	Apr. 20-24	Marko Chain Monte Carlo simulations	
10	Apr. 27-May 1	Marko Chain Monte Carlo simulations	Review paper -
11	May. 4-8	Fundamentals of statistical signal processing	
12	May. 11-15	modeling discrete-time random signals	
13	May. 18-22	Wavelet transform	Review paper
14	May. 25-29	molecular dynamics simulation	
15	Jun. 1-5	molecular dynamics simulation	
16	Jun. 8-12	finite element methods	
17	Jun. 15-19	finite element methods	