

Outline of computational statistics

- Lect1 Introduction
- Lect2 Basics of probability theory
- Lect3 Basics of statistics
- Lect4 Generation of RVs and Variance reductions
- Lect5 Markov Chains and Markov processes (I)
- Lect6 Markov Chains and Markov processes (II)
- Lect7 Metropolis algorithm and KMC
- Lect8 Stochastic simulations in chemical kinetic systems
- Lect9 Simulated annealing and QMC
- Lect10 Parallel tempering, Cluster algorithm and EE sampling
- Lect11 Gibbs sampling (I)
- Lect12 Gibbs sampling (II)
- Lect13 EM algorithm
- Lect14 Sequential Monte Carlo methods (I)
- Lect15 Sequential Monte Carlo methods (II)
- Lect16 Molecular dynamics and hybrid Monte Carlo
- Lect17 Graphical model
- Lect18 Kalman filtering
- Lect19 Hidden Markov model
- Lect20 Linear regression and basis expansion
- Lect21 k-means, Fuzzy c-means clustering