

STAT5330: 統計計算 (Statistical Computing)

Lecture: Tuesday 15:30-18:20pm

綜合三館 837

Instructor: 鄭又仁 ycheng@stat.nthu.edu.tw

Books:

- The Elements of Statistical Learning (2009), Hastie, Tibshirani and Friedman, Springer.
- Bayesian Data Analysis (2004), Gelman, Carlin, Stern and Rubin, Chapman & Hall.
- Convex Optimization (2004), S. Boyd and L. Vandenberghe, Cambridge University Press.

Course Topics:

This course covers modern computationally methods and practice for statistical analysis. Here are the topics, including

- Introduction
- Random variable generation
- Monte Carlo and MCMC methods
- EM algorithms
- Optimization methods
- Dimensional reduction
- Support Vector Machine, SVM
- Topic model

Grading: Homework: 50% and Projects: 50%.