STAT5110: 數理統計

Fall 2009 Monday 10:10-12:00 Wed 8:00-9:50

Instructor: 徐南蓉

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Textbook: Casella and Berger (1990),
Statistical Inference

Bickel and Doksum (2007),
Mathematical Statistics: Basic Ideas and Selected Topics Vol. I (2nd edition)

Grading: homework (30%) **,** midterm (35%)**,** final exam (35%)
No late homework accepted!

Teaching Assistant: To be announced

Office Hours: Wed 10:00-11:00am or by appointment

Topics Outline:

Review some statistics and probability concepts and properties	C&B chapter 1-5 B&D chapter 1
Principles of data reduction: sufficiency principle and likelihood principle	C&B chapter 6.1-6.2 B&D chapter 1
Point estimation: method of moments and MLE	C&B chapter 7 B&D chapter 2, chapter 3
Decision theory, Bayes rule and Bayesian analysis	C&B chapter 10 B&D chapter 1, chapter 3
Invariance principle and related topics	C&B chapter 6.3, 7.2.4
Hypothesis testing	C&B chapter 8 B&D chapter 4
Interval estimation	C&B chapter 9 B&D chapter 4
Asymptotic approximations	B&D chapter 5