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),

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; estimating equations and MLE | C&B chapter 7  
| B&D chapter 2, chapter 3 |
| Decision theory, Bayes rules 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 |