Statistics 971
Syllabus, Spring 2020

Classes: Mon/Wed 1:30–2:50 p.m., in JMHH F92

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Office hours: Wed 3:00–4:00 p.m., or by appointment

Course Overview
This course is the second semester of the first year PhD level mathematical statistics sequence. The course focuses on large sample theory. It is NOT about linear models. Course prerequisite is STAT 970.

Textbook

Course Requirements and Grading Policy
There will be four problem sets, one midterm and one final. Evaluation will be based on homework (30%), midterm (30%) and final (40%).

The midterm will be an in-class exam taking place on Wednesday, March 4. You may bring your textbook and notes to the midterm. Electronic devices are not allowed.

The final will be a take-home exam. Exam time and logistic details will be announced later.

Tentative Content List
• Stochastic convergence
• Delta method
• $M$- and $Z$- estimators
• Contiguity and local asymptotic normality
• Efficiency of estimators
• $U$-statistics
• Efficiency of tests
• Stochastic convergence in metric spaces
• Empirical processes