Joint Statistics Seminar

The Hong Kong University of Science and Technology

Bayesian Analysis in Moment Inequality Models

by

Dr. Yuan Liao
Department of Statistics
Northwestern University

Date: August 28, 2009 (Friday)
Time: 11:00 a.m. – 12:00 noon
Venue: Room 3401 (Lift 17/18)

Abstract

This paper presents a study of the large sample behaviors of the posterior distribution of a structural parameter, which is partially identified by moment inequalities. The posterior density is derived based on the limited information likelihood. The posterior distribution converges to zero on any delta contraction outside the identified region exponentially fast. Inside, it is bounded below by a positive constant if the identified region is assumed to have a non-empty interior. Our simulation evidence indicates that the Bayesian approach has advantages over frequentist methods, in the sense that with a proper choice of the prior, the posterior provides more information about the true parameter inside the identified region.We also address the problem of moment and model selection. Our optimality criterion is the maximum posterior procedure, and we show that asymptotically it selects the true moment/model combination with the most moment inequalities and the simplest model.

❖ ***All interested are welcome!*** ❖
For details, please contact ISOM Department.