

THE CHINESE UNIVERSITY OF HONG KONG

Department of Statistics

will present a seminar entitled

Bayesian analysis in moment inequality models

by

Mr. Yuan Liao (a Grade-5 PhD candidate)

Department of Statistics

Northwestern University

on

Thursday, 27 August 2009

11:00am – 12:00pm

in

Lady Shaw Building C2

The Chinese University of Hong Kong

Abstract:

This paper studies one of the most popular topics in econometrics: the partially identified model. We present the large sample behaviors of the posterior distribution of a structural parameter that is partially identified by moment inequalities, and is therefore impossible to be consistently estimated. The posterior density is derived based on the limited information likelihood which converges to zero outside the identified region exponentially fast. Inside, it is bounded away from zero 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, and show that asymptotically the maximum posterior criterion selects the true moment/model combination with the largest number of moment inequalities and the simplest model. The paper is available at <http://www.e-publications.org/ims/submission/index.php/AOS/user/submissionFile/4220?confirm=360d428e>.

All are Welcome