DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Seminar

Dr. XU Jinfeng

Division of Biostatistics
Department of Population Health
New York University School of Medicine
New York, USA

will give a talk

entitled

EMPIRICAL LIKELIHOOD-BASED TESTS FOR STOCHASTIC DOMINANCE OF ANY PRE-SPECIFIED ORDER

Abstract

Among many types of orders of varying degrees of strength for comparing distributions, stochastic dominance is one of the weakest and has long been used in the comparison of income, wealth, and earnings distributions. For example, in finance, stochastic dominance criteria can potentially provide an unambiguous ranking of the desirability of different assets while placing only general restrictions on the preferences of investors. Recently, El Barmi and Mckeague (2013) developed an empirical likelihood ratio test for stochastic dominance of first order. We consider tests that relate to general forms of stochastic dominance. Such tests, in the case of tests for stochastic dominance beyond first order, do not have a closed form but retain the appealing properties of the empirical likelihood method. We first consider the one-sample problem and then extend the approach to the general k-sample setting. The asymptotic null distributions of the tests are obtained and inferential procedures based on resampling are proposed and justified. We conduct simulation studies to compare the tests to alternative approaches. An empirical example is also provided to illustrate its practical utilities.

on

Monday, March 30, 2015

(Refreshments will be served from 3:15 p.m. <u>outside Room 301 Run Run Shaw Building</u>)

3:30 p.m. – 4:30 p.m.

at

Room 301, Run Run Shaw Building

<u>**Visitors Please Note**</u> **that the University has limited parking space. If you are driving please call the Department at 3917 2466 for parking arrangement.**

All interested are welcome