

For favour of posting

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Seminar

Professor Ming T. TAN

Department of Biostatistics
Bioinformatics and Biomathematics
Georgetown University
Washington DC, USA

will give a talk

entitled

**ROBUST SUB-GROUP ANALYSIS WITH
SEMIPARAMETRIC MODEL FOR PRECISION MEDICINE**

Abstract

We propose a robust method via a semiparametric model to test if subgroups with differential treatment effects in clinical trials exist and to identify such subgroups. The model is formulated as a geometrical mean of a parametric and a nonparametric component. The former represents our knowledge about the model and the latter represents the uncertainty. The profile likelihood method is used for model estimation. The profile likelihood ratio and score statistics are used to test the existence of subgroups. If existence of subgroups is confirmed, we use Neyman-Pearson rule to classify each subjects to one of the subgroups, so that the misclassification error for the treatment favored group is controlled by pre-specified criterion and is minimized for the other subgroups. The properties of the procedure are studied analytically with proofs and by simulation. This work is in collaboration with Ao Yuan and William Chen.

on

Tuesday, October 27, 2015

(Refreshments will be served from 11:15 a.m. outside Room 301 Run Run Shaw Building)

11:30 a.m. – 12:30 p.m.

at

Room 301, Run Run Shaw Building

Visitors Please Note 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