

For favour of posting

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Departmental Seminar

Professor Satoshi MORITA

Department of Biomedical Statistics and Bioinformatics
Kyoto University Graduate School of Medicine
Kyoto, Japan

will give a talk
entitled

BAYESIAN POPULATION FINDING WITH BIOMARKERS IN A RANDOMIZED CLINICAL TRIAL

Abstract

The identification of good predictive biomarkers allows investigators to optimize the target population for a new treatment. We propose a novel utility-based Bayesian population finding (BaPoFi) method to analyze data from a randomized clinical trial with the aim of finding a sensitive patient population. Our approach is based on casting the population finding process as a formal decision problem together with a flexible probability model, Bayesian additive regression trees (BART), to summarize observed data. The proposed method evaluates enhanced treatment effects in patient subpopulations based on counter-factual modeling of responses to new treatment and control for each patient. In extensive simulation studies, we examine the operating characteristics of the proposed method. We compare with a Bayesian regression-based method that implements shrinkage estimates of subgroup-specific treatment effects. For illustration, we apply the proposed method to data from a randomized clinical trial.

on

Friday, March 22, 2019

(Refreshments will be served from 2:15 p.m. outside Room 301 Run Run Shaw Building)

2:30 p.m. – 3:30 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