

For favour of posting

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Departmental Seminar

Dr Alex Kin-Yau WONG

Department of Applied Mathematics
The Hong Kong Polytechnic University
Hong Kong

will give a talk
entitled

**SCORE TESTS WITH INCOMPLETE COVARIATES AND HIGH-
DIMENSIONAL AUXILIARY VARIABLES**

Abstract

Analysis of modern biomedical data is often complicated by the presence of missing values. To improve statistical efficiency, it is desirable to make use of potentially high-dimensional observed variables to impute or predict the missing values. Although many methods have been developed for prediction using high-dimensional variables, it is challenging to perform valid inference based on the predicted values. In this presentation, we develop an association test for an outcome variable and a potentially missing covariate, where the covariate can be predicted using selected variables from a set of high-dimensional auxiliary variables. We establish the validity of the test under general model selection procedures. We demonstrate the validity of the proposed method and its advantages over existing methods through extensive simulation studies and provide an application to a major cancer genomics study.

on

Wednesday, December 9, 2020

2:30 p.m. – 3:30 p.m.

via Zoom

<https://hku.zoom.us/j/898628477?pwd=bU9mckptVDU2WWR0SnZ6TVVUN3JiZz09>

All interested are welcome