For favour of posting

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE THE UNIVERSITY OF HONG KONG

**Departmental Seminar** 

## **Professor Tapabrata MAITI**

Professor and Graduate Director Department of Statistics & Probability Michigan State University USA

> will give a talk entitled

# STATISTICAL LEARNING WITH HIGH-DIMENSIONAL STRUCTURALLY DEPENDENT DATA

#### Abstract

The rapid development of information technology is making it possible to collect massive amounts of multidimensional, multimodal data with high dimensionality in diverse fields of science and engineering. New statistical learning and data mining methods have been developing accordingly to solve challenging problems arising out of these complex systems. In this talk, we will discuss a specific type of statistical learning, namely the problem of feature selection and classification when the features are high dimensional and structured, specifically, they are spatio-temporal in nature. Various machine learning techniques are suitable for this type of problems although the underlying statistical theories are not well established. We will discuss linear discriminant analysis based technique under spatial dependence features and talk about their theoretical and numerical performances. The work is motivated from analyzing brain imaging data.

on

### Thursday, January 10, 2019

(Refreshments will be served from 10:45 a.m. outside Room 301 Run Run Shaw Building)

### 11:00 a.m. – 12:00 noon

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