DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Seminar

Professor Jamal NAJIM

CNRS and Gaspard Monge Lab of Computer Science
Eastern Paris University
France

will give a talk

entitled

LIMITING SPECTRAL DISTRIBUTION
FOR NON-HERMITIAN RANDOM MATRICES
WITH A VARIANCE PROFILE

Abstract

Consider a large $n \times n$ random matrix Y_n with entries given by

$$Y_{ij} = \frac{\sigma_{ij}}{\sqrt{n}} X_{ij}$$

where the X_{ij}'s are independent and identically distributed random variables with four moments, and the σ_{ij}'s are deterministic, non-negative quantities and account for a variance profile. Notice that some of the σ_{ij}'s may be equal to zero. In this talk, we will describe the limiting spectral distribution of matrix Y_n as $n \to \infty$, that is the limit of the empirical distribution of Y_n's eigenvalues. We will carefully specify the assumptions on the variance profile (σ_{ij}) under which we can describe the limiting spectral distribution. This is a joint work with Nicholas Cook, Walid Hachem and David Renfrew.

on

Wednesday, April 13, 2016

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

2:30 p.m. – 3:30 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