For favour of posting

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Seminar

Professor Tony CAI

Department of Statistics
The Wharton School
University of Pennsylvania
U.S.A.

will give a talk

entitled

ADAPTIVE ESTIMATION OF A PLANAR CONVEX SET

Abstract

In this talk, I will present some recent work on adaptive estimation of an unknown planar compact, convex set from noisy measurements of its support function. Both the problem of estimating the support function at a point and that of estimating the whole convex set are considered. For pointwise estimation, we study the problem in a general non-asymptotic framework, which evaluates the performance of a procedure at each individual set, instead of the worst case performance over a large parameter space as in the conventional minimax theory. A data-driven adaptive estimator is proposed and is shown to be optimally adaptive to every compact, convex set. For estimating the whole convex set, we propose estimators that are shown to adaptively achieve the optimal rate of convergence.

on

Thursday, June 23, 2016

(Refreshments will be served from 3:45 p.m. <u>outside Room 301 Run Run Shaw Building</u>)

4:00 p.m. – 5:00 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