

For favour of posting

DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Departmental Seminar

Professor Edsel A. PENA

Department of Statistics
University of South Carolina
USA

will give a talk
entitled

MEDIAN CONFIDENCE REGIONS

Abstract

In many real-life situations, to measure the central location of a population distribution, the median is preferable over the mean since it always exists, better represents the center under skewed distributions, and it is more resistant to distributional perturbations. For instance, the median would be preferred over the mean when dealing with economic indicators such as household income, whose distribution is highly right-skewed. Or, it might be the measure of central tendency that is sought when dealing with the lifetime of a complex engineering system whose distribution could not be assumed to belong to some known parametric class of distributions. In this talk I will re-visit the problem of constructing confidence regions for the median under a nonparametric model, with the aim of obtaining optimal confidence regions. This will be achieved by imposing group invariance and equivariance properties. The resulting confidence regions will be compared with existing “off-the-shelf” confidence intervals through simulation studies. They will then be demonstrated using real data sets. Existing problems pertaining to the construction of multiple confidence regions for multiple medians will also be described.

on

Wednesday, June 5, 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