Sponsored by the Department of Mathematics & Statistics

Density Ratio Model and Empirical Likelihood

Dr. Jiahua Chen

Department of Statistics
University of British Columbia

Abstract:

Assuming a model in a statistical application is to impose a distribution family on the data to be analyzed. When a parametric family is assumed, there are often many easy-to-use standard data analysis methods. However, in some applications, the inference conclusions can be heavily dependent on the parametric model assumption and the role of the data is uncomfortably low. Assuming a non-parametric model leaves the inference heavily dependent on data sometime heavily the noisy aspect. The density ratio model overcomes these drawbacks when multiple samples are available. It connects several population distributions with a semi-parametric structure to avoid strong model assumption while taking the relationship between the populations into consideration. In addition, it permits effective inference procedures through empirical likelihood. In this talk, we provide two examples where properties of the density ratio model under empirical likelihood are profitably explored and superior statistical procedures are obtained.

+ Date
   Thursday
   March 1, 2018

+ Time
   1:00 pm – 2:00 pm

+ Location
   7-238 Lecture Theatre

+ Contact
   Dr. Pranesh Kumar
   Phone: 250-960-6671
   pranesh.kumar@unbc.ca

Everyone welcome

Light Refreshments Provided