



The University of Mississippi
Department of Mathematics

Statistics Seminar

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Title: Jackknife Empirical Likelihood Methods for the Gini Index

2:00 pm, Friday, March 25, 2016
Hume Hall 331

Abstract: A variety of statistical methods have been developed to the interval estimation of a Gini index, one of the most widely used measures of economic inequality. However there is still plenty of room for improvement in terms of coverage accuracy and interval length. In this paper, we propose interval estimators for the index and the difference of two Gini indices via jackknife empirical likelihood. Via expressing the estimating equations in the form of U-statistics, our method can be simply applied as the standard empirical likelihood for an univariate mean and avoid maximizing the profile empirical likelihood for the difference of two Gini indices. Simulation studies show that our method is comparable to existing empirical likelihood methods in terms of coverage accuracy, but yields shorter intervals. The proposed methods are illustrated using a real data set.

This is joint work with Dongliang Wang and Dirk Gilmore.