

# **Statistical Inference of Poverty Measures Using U-Statistics Approach**

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**Abstract:** The problem of poverty is the most important problem that many developing countries suffer from. Poverty has many negative effects to social, political and economic life in a society. These problems have always been the major concerns to policy makers. The decision makers try to construct some plans and economic reforms to decrease poverty all around the world. In this talk, U-Statistics approach is introduced and is used to estimate some poverty measures. Statistical inferences such as confidence intervals and test hypotheses are constructed to compare the estimated numerical poverty indices over times or between socioeconomic groups within the same country or between different countries. Finally, our results are applied to data set in Egypt in 2008/2009 ECAS (1996-2009).