Empirical Likelihood Approach Estimation of Structural Equation Models

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ABSTRACT

This thesis provides a preliminary investigation of empirical likelihood approach estimation of structural equation models. An auxiliary variable approach built on general estimating equation methods in the EL settings is followed. An auxiliary variable is proposed and estimation/inference based upon it is developed. Testing of model covariance structure for over-identified model is suggested. Asymptotic efficiency connection with Un-weighted Least Squares estimator and multi-normal MLE is established. Estimation example of non-elliptical distribution data is provided