Estimation in Multiple Regression Model with Elliptically Contoured Errors under MLINEX Loss

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Abstract

This paper considers estimation of the regression parameter vector of the multiple regression model with elliptically symmetric contoured errors. The generalized least square (GLS), restricted GLS and preliminary test (PT) estimators for regression parameter vector are obtained. The performances of the estimators are studied under multiparameter linear exponential loss function (MLINEX), and the dominance order of the estimators are given.

Keywords: Elliptically contoured distribution, GLS estimator, preliminary test estimator, MLINEX loss function, moment generating function.