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Robust Liu-type Estimator in Logistic Regression Model / Lojistik Regresyon Modelinde Sağlam Liu- tipi Tahmin Ediciler

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ABSTRACT

Multicollinearity and outliers are main problems in linear model. These problems can be seen in logistic regression model like linear models. Biased and robust estimators are proposed to solve these problems separately in literature. But, there are limited work in logistic regression literature to solve these problems simultaneously. Robust logistic Ridge and robust logistic Liu estimators are proposed for this purpose. In this study, we combine biased and robust estimators to handle multicollinearity and outliers problems. Also, simulation study and real data example are given to show the performance of the estimator over the estimators given in literature.

KEYWORDS Logistic Regression; Robust Estimator; Liu-Type Estimator; Multicollinearity

JEL C13, C15