

Logistic regression estimators comparison using Pitman's Measure of Closeness

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Abstract

The multicollinearity may occur in many applications of the logistic regression models, in this case Ridge estimator is used to combat multicollinearity in logistic regression models. Liu logistic regression estimator, which combines the advantages of Ridge and Stein estimates, is proposed as an alternative to the Ridge Logistic estimator in the sense of mean square estimation criterion. This paper provides theoretical results about the performance of Liu and Ridge logistic regression estimator under the criterion of Pitman's Measure of closeness as an alternative criterion to the mean square estimation criterion.

Keywords

Logistic regression, Ridge logistic estimator, Liu logistic estimator, Pitman's Measure of Closeness.

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