

BOOTSTRAPPING IN DETERMINATION OF RIDGE PARAMETER

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ABSTRACT

This article studied the application of ridge regression on multicollinear data whose ridge parameter was determined using bootstrap samples. Mean squared error of the samples and some arbitrary values were used to determine the ridge parameter that will give the minimum residual. The result of the study revealed that both the mean squared error and the smallest eigenvalue of the predictor variables of the original data play vital role in determining the ridge parameter of ridge regression.

KEYWORDS: Ridge Parameter, Least Squares, Bootstrapping, Multicollinearity, Penalized Residual Sum of Squares, Mean Squared Error and Smallest Eigenvalue