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Extracting the Variance Inflation Factor and Other Multicollinearity Diagnostics from Typical Regression Results

Christopher Glen Thompson , Rae Seon Kim, Ariel M. Aloe & Betsy Jane Becker

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ABSTRACT

Multicollinearity is a common problem in regression analysis. This article examines the impact of multicollinearity on the variance-covariance matrix of the regression coefficients. We discuss standard diagnostic tests for multicollinearity, such as the variance inflation factor (VIF) and the tolerance statistic. We conclude that multicollinearity can be detected and its effects can be mitigated by using appropriate diagnostic tests and by using ridge regression or principal component regression (PCR) as alternatives to ordinary least squares (OLS) regression.



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