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Multicollinearity and Regression Analysis (Conference Paper)

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Abstract

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In regression analysis it is obvious to have a correlation between the response and predictor(s), but having correlation among predictors is something undesired. The number of predictors included in the regression model depends on many factors among which, historical data, experience, etc. At the end selection of most important predictors is something objective due to the researcher. Multicollinearity is a phenomena when two or more predictors are correlated, if this happens, the standard error of the coefficients will increase [8]. Increased standard errors means that the coefficients for some or all independent variables may be found to be significantly different from In other words, by overinflating the standard errors, multicollinearity makes some variables statistically insignificant when they should be significant. In this paper we focus on the multicollinearity, reasons and consequences on the reliability of the regression model. © Published under licence by IOP Publishing Ltd.

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