KAJIAN METODE ORDINARY LEAST SQUARE DAN ROBUST ESTIMASI M PADA MODEL REGRESI LINIER SEDERHANA YANG MEMUAT OUTLIER

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Abstract	This research discusses about the Ordinary Least Squares (OLS) method and robust M-estimation method; compare between the Tukey bisquare and Huber weighting from simple linier regression models that contain outliers. Data are generated through simulation with the percentages of outliers and sample sizes. Each data will be formed into a simple linier regression model, then the percentage of outliers, RSE and MAD values are calculated. The results show that RSE and MAD values produced by a simple linear regression model with the OLS method are influenced by the percentage of outliers. However, the regression model of robust M-estimation with sample size 30, 60, 90, 120, and 150 results an unstable RSE values with the change of the percentage of outlier and the MAD values that are not affected by the percentage of outliers and sample size. The robust M-estimation method with Tukey Bisquare weighting is as good as the Huber weighting.
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