

# On The Standard Error of Some Classes of Robust Estimators

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## 1 Abstract

Robust estimators possess a lot of advantages as a better response to the presence of outliers in the data in comparison to classical estimators. The works on robust estimators are focused mainly on their properties related to this behaviour, for example the finite sample breakdown point. In this work we consider these estimators from a different point of view. It turns out that they give higher values of standard error of the estimated parameter than the nonrobust ones. To study this phenomenon a generalization of the Weighted Trimmed Likelihood Estimator (WTLE) is introduced. The major theoretical results are also confirmed by numeric computations.