

## **Abstract**

The thesis focuses on the S-weighted estimator and its performance on contaminated data. The first part summarizes the historical background, providing a basic orientation in the field of robust statistics and reviewing the existing literature on S-weighted estimator. In a simulation study performed in Matlab, the estimator's performance is compared with that of LWS and S-estimator. The results show that S-weighted estimator achieves the same efficiency as LWS in lower contamination levels. Contamination exceeding 10% causes significantly higher mean squared error of the S-weighted estimates. The last part of the thesis focuses on developing a simple implementation of the estimator in Python.