

Semiparametric robust mean estimations based on the orderliness of quantile averages

Tuban Lee

This manuscript was compiled on June 5, 2023

1 As one of the most fundamental problems in statistics, the robust loca-
2 tion estimation has many prominent solutions, such as the symmetric
3 trimmed mean, symmetric Winsorized mean, Hodges–Lehmann esti-
4 mator, Huber M-estimator, and median of means.

semiparametric | mean-median-mode inequality | asymptotic | unimodal
| Hodges–Lehmann estimator

1 **Data Availability.** Data for Figure ?? are given in SI Dataset
2 S1. All codes have been deposited in [GitHub](#).

3 **ACKNOWLEDGMENTS.** I sincerely acknowledge the insightful
4 comments from the editor which considerably elevated the lucidity
5 and merit of this paper.

DRAFT