Near-consistent robust estimations of moments for unimodal distributions

Tuban Lee

This manuscript was compiled on June 7, 2023

orderliness | invariant | unimodal | adaptive estimation | U-statistics

- A. Congruent distribution. In the realm of nonparametric
- 2 statistics, the relative differences, or orders, of robust esti-
- 3 mators are of primary importance. Based on this principle,
- 4 when there is a shift in the parameters of the underlying dis-
- 5 tribution, all nonparametric estimates should asymptotically
- 6 change in the same direction.
- 7 Data Availability. Data for Table ?? are given in SI Dataset S1.
- 8 All codes are attached.
- 9 **ACKNOWLEDGMENTS.** I gratefully acknowledge the construc-
- tive comments made by the editor which substantially improved
- 11 the clarity and quality of this paper.