# Near-consistent robust estimations of moments for unimodal distributions

**Tuban Lee**

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**Descriptive statistics for parametric models currently heavily rely on the accuracy of distributional assumptions. Here, leveraging the invariant structures of parametric distributions and their central moment kernel distributions, a series of sophisticated yet efficient estimators, robust to both gross errors and departures from parametric assumptions, are proposed for estimating mean and central moments for common unimodal distributions.**

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

**Theorem .1.**

*Proof.* □

**Data Availability.** Data for Table **??** are given in SI Dataset S1. All codes have been deposited in GitHub.