

Near-consistent robust estimations of moments for unimodal distributions

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1 Descriptive statistics for parametric models currently rely heavily
2 on the accuracy of distributional assumptions. Here, leveraging the
3 structures of parametric distributions and their central moment ker-
4 nel distributions, a class of estimators, consistent simultaneously
5 for both a semiparametric distribution and a distinct parametric dis-
6 tribution, is proposed. These estimators are robust to both gross
7 errors and departures from parametric assumptions as long as the
8 underlying distribution is unimodal,

1 Theorem .1.

2 *Proof.*

□

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