

## **Bias-reduced estimation of Wang's two-sided deviation risk measure under Levy-stable regime**

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**Authors:** Brahim Brahim, Djamel Meraghni, Abdelhakim Necir and Sonia Touba.

### **Abstract**

Abstract. Several risk measures, such as the distorted insurance premium and the two-sided deviation (TSD) measure, can be regarded as L-functionals with specific weight functions. In this paper, we focus on the TSD risk measure as we define a new estimator by using the bias-reduced estimators of extreme quantiles proposed by Li et al. (2010). A simulation study is carried out to compare, in terms of bias and mean squared error, the new estimator with that introduced recently by Necir and Meraghni (2010).

**Keywords :** Bias reduction; High quantiles; Hill estimator; Lévy-stable distribution; L-statistics; Order statistics; Risk Measure; Second order regular variation, Tail index.

**Link** <http://www.ajol.info/index.php/afst/article/view/83630>