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# On an *L*-estimator with data-dependent coefficients *

Yijun Zuo † and Du Juan ‡

**Abstract**

A classical $L$-estimator is a linear combination of order statistics with *constant* coefficients. This paper studies an $L$-estimator which has *data-dependent* coefficients. The paper focuses on the efficiency behavior of the estimator and addresses the robustness and the asymptotics issues as well. It turns out that the random-coefficient estimator enjoys a remarkably high *absolute efficiency* relative to the most efficient estimators at a variety of light and heavy tailed models while sharing the best breakdown point robustness of the univariate median. Findings in the paper suggest that the random-coefficient $L$-estimator can serve very well as a location estimator and an alternative to both the median and the mean.

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†*Mailing Address:* Department of Statistics and Probability, Michigan State University, East Lansing, MI 48824. *E–mail:* zuo@msu.edu.

‡*Mailing Address:* Department of Statistics and Probability, Michigan State University, East Lansing, MI 48824. *E–mail:* dujuan@msu.edu.