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Journal	Mathematics (https://www.mdpi.com/journal/mathematics) (ISSN 2227-7390)
Manuscript ID	mathematics-2265149
Type	Article
Title	Check your outliers! An accessible introduction to identifying statistical outliers in R with easystats
Authors	Rémi Thériault * , Mattan S. Ben-Shachar , Indrajeet Patil , Daniel Lüdecke , Brenton M. Wiernik , Dominique Makowski
Section	Probability and Statistics (https://www.mdpi.com/journal/mathematics/sections/probability_and_statistics_theory)
Special Issue	Advances in Statistical Computing (https://www.mdpi.com/journal/mathematics/special_issues/Advances_in_Statistical_Computing)
Abstract	Beyond the challenge of keeping up-to-date with current best practices regarding the diagnosis and treatment of outliers, an additional difficulty arises concerning the mathematical implementation of the recommended methods. In this paper, we provide an overview of current recommandations and best practices and demonstrate how they can easily and conveniently be implemented in the R statistical computing software, using the *{performance}* package of the *easystats* ecosystem. We cover univariate, multivariate, and model-based statistical outlier detection methods, their recommended threshold, standard output, and plotting methods. We conclude with recommendations on the handling of outliers: the different theoretical types of outliers, whether to exclude or winsorize them, and the importance of transparency.

Author's Reply to the Review Report (Reviewer 1)

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* Author's Notes to Reviewer

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Does the introduction provide sufficient background and include all relevant references?	(x)	( )	( )	( )
Are all the cited references relevant to the research?	(x)	( )	( )	( )
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Are the results clearly presented?	( )	(x)	( )	( )
Are the conclusions supported by the results?	(x)	( )	( )	( )

| Comments and Suggestions for Authors | In this paper, the authors have shown how to search for outliers using the check_outliers() function of the {performance} package while following current good practices. This contribution will help researchers engage in good search practices while providing an outlier detection experience. They cover univariate, multivariate, |

and model-based statistical outlier detection methods, their recommended threshold, standard output, and plotting methods. The present paper represents the subject of check the outliers, An accessible introduction to identifying statistical outliers in R with easystats. The study design and methods appropriate for the research question. The results presented clearly and accurately. The authors logically explain the findings. I highly recommend the publication of this paper in Mathematics Journal.

Submission Date	21 February 2023
Date of this review	03 Mar 2023 23:24:46