Dear editor,

Enclosed, please find the manuscript text of a discussion paper entitled "Limitations in detecting multicollinearity due to scaling issues in the mcvis package" that we would like to submit for your consideration for publication in *The R Journal*. This paper is co-authored with R. Salmerón, García, C. and Rodriguez, A. from the University of Granada (Spain).

This paper illustrates that the MC index presented by Lin et al. (2020) depends on the way that the data are transformed and contributes with a formal justification to perform the *studentise* transformation. It is also shown that the MC index only detects the essential multicollinearity and only provides interesting information if the troubling multicollinearity is previously detected using other measures (such as the VIF or the CN). Additionally, we propose to use a scatter plot between the VIFs and the CVs, on the one hand, to detect if the degree of multicollinearity (essential or not essential) is troubling and, on the other hand, to detect which variables are causing the multicollinearity. We consider that this paper clarifies how to formally use the MC and promotes its correct application. We humbly consider that this contribution is in line with the overview of this journal as a "Add-on packages" since it clarifies the application of the MCVIS that have appeared recently in *Journal of Computational and Graphical Statistics* as a new framework for collinearity discovery, diagnostic, and visualization. The main goal of this paper to avoid improper use of the R mcvis package clarifying in which situations its application is useful.

This contribution is original, has not been published previously and is not under consideration for publication elsewhere. We followed the directions of *The R Journal* in the preparation of our manuscript text. Of course, if anything needs changing to ensure that the manuscript meets the publications standards of *The R Journal* we shall respond promptly.

Thank you for your time and your consideration.

Yours sincerely

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References

Lin, C., K. Wang, and S. Mueller (2020). Mcvis: A new framework for collinearity discovery, diagnostic and visualization. *Journal of Computational and Graphical Statistics*.