April 4, 2024 Editor The R Journal

Dear Professor Cook,

Please consider our article titled "A New (Old) Goodness of Fit Metric for Multidimensional Outcomes" for publication in the R Journal.

The manuscript introduces an extension of the canonical R-squared calculation and an accompanying package, mvrsquared. We use a geometric interpretation of the traditional R-squared definition to generalize it for calculating goodness of fit for multivariate prediction (where one observed outcome is in multiple dimensions). We provide results of applying our calculation on 4 use cases as well as examples on how to use the mvrsquared package.

We believe the readers of the R Journal will find this article helpful for their work because it provides them a means to calculate a well-known "sanity check" metric for complex models, making complex results more accessible to audiences.

Regards,

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