December 13, 2025

Editor
The R Journal

Dear Professor Rob J Hyndman,

We are pleased to submit our article titled *"cardinalR: Generating Interesting High-Dimensional Data Structures"* for consideration in *The R Journal*. The `cardinalR` package provides flexible, reproducible tools for generating a wide variety of high-dimensional data structures, supporting simulation studies, benchmarking, teaching, and method development.

High-dimensional datasets with nonlinear relationships, clustering, or anomalies pose challenges for modern statistical and machine learning methods. `cardinalR` addresses this by combining mathematical functions and statistical distributions to generate data with meaningful geometric and statistical properties across any number of dimensions. Several example datasets are included to illustrate these capabilities and enable reproducible research.

We believe `cardinalR` will be of broad interest to the journal's readership, particularly those developing or testing algorithms for clustering, nonlinear dimension reduction, or visualization. By providing clear, flexible, and well-documented functions, the package supports the creation of high-quality synthetic data for evaluating methods and illustrating key concepts.

We consider *The R Journal* the ideal venue for this work, given its commitment to advancing the R ecosystem through open-source contributions, and we hope `cardinalR` will serve as a valuable resource for the community.

Regards,
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