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Dear Doctor Hurley,

Please find attached a manuscript entitled *The R Package HDSpatialScan for the Detection of Clusters of Multivariate and Functional data using Spatial Scan Statistics*, for consideration as an original research article in *The R Journal*.

This manuscript introduces a package that implements scan statistics methods for spatial cluster detection. In many fields, researchers manipulate multivariate or functional spatial data and may be interested in identifying statistically significant spatial clusters within them. Thus, this package implements two spatial scan statistics for multivariate real-valued data taking into account correlation between variables and four scan statistics for both univariate functional and multivariate functional data indexed in space. It also proposes functions to easily plot or summarize the results.

We believe that our package, which is already available on CRAN, will be of interest to *The R Journal*'s readers since no existing package proposes multivariate scan models taking into account correlation between variables or scan models for functional data. Our package presents the advantage that all the scan procedures are applied using the same function which makes it very quick to get started. Due to the Monte-Carlo procedures our replication script takes approximately forty minutes to run. Thus we provide another script with less Monte-Carlo permutations to reduce the computation time to approximately five minutes. Both scripts are provided with their html output.

All of the authors have critically revised the manuscript for important intellectual content and have approved the final version submitted for publication. There are no conflicts of interest to report. We certify that this submission is an original study.

Yours sincerely,
Camille Frévent