

Editorial

by Bettina Grün

On behalf of the editorial board, I am pleased to publish Volume 7, Issue 1 of the R Journal. This issue contains 16 contributed research articles. Each of them either presents an R package, a specific extension of an R package or applications using R packages available from the Comprehensive R Archive Network (CRAN, <http://CRAN.R-project.org>). It thus provides a small insight into the wide variety of functionality covered currently by the more than 6800 packages available from CRAN.

The presented packages include packages for enhancing the graphics functionality of R such as package **gridGraphics** for converting graphics drawn with the **graphics** package to **grid** graphics and **showtext** for using system fonts in R graphics. Additional graphical tools are provided by package **sparkTable**, which allows to enhance tables, and by package **fanplot**, which allows to visualize the uncertainty connected with forecasts using fan charts. Further infrastructure is implemented in package **rstackdeque** which provides efficient data structures for stacks and queues.

Some of the presented packages provide specialized infrastructure which is valuable for certain areas of application or data situations such as the **Peptides** package for antimicrobial peptides analysis, the **Frames2** package for estimation in dual frame surveys, packages **dpcr** and **qpcr** for the analysis of data from digital and quantitative polymerase chain reaction experiments and package **fslr** which provides a connection to the FSLR software commonly used to process and analyze neuroimaging data.

Specific statistical methods and models which might prove useful in different areas of applications are provided by package **rdrobust**, which allows for robust nonparametric inference in regression-discontinuity designs, by package **cmvnorm**, which implements a complex generalization of the **mvtnorm** package, by package **sae**, which complements other software available on CRAN for small area estimation, by package **FactoMineR**, which now also contains functionality for correspondence analysis on generalized aggregated lexical tables, by package **cna**, which performs coincidence analysis to identify complex causal dependencies, and package **estimability**, which allows to determine if a certain prediction is possible in a rank-deficient regression. Furthermore package **discreteRV** provides infrastructure to manipulate discrete random variables which is intended to help students in introductory probability courses to understand the theoretical concepts and thus adds to the other tools available in R for teaching.

In addition the News and Notes section contains the usual updates on the R Foundation, the Bioconductor project, CRAN, and changes in R itself.

I hope you enjoy the issue.

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