Conference Report: Polish Academic R User Meeting

by Maciej Beręsewicz, Alicja Szabelska, Joanna Zyprych-Walczak and Łukasz Wawrowski

Conference summary

The first national conference "Polish Academic R User Meeting" (PAZUR) was held at the Poznan University of Economics from October 15–17, 2014. The organizers of the conference were the Department of Statistics at the Poznan University of Economics (PUE), the Department of Mathematical and Statistical Methods at the Poznan University of Life Sciences (PULS) and SKN Estymator, the students scientific association that resides at the Department of Statistics at the Poznan University of Economics. The honorary patronage of the conference took Professor Emil Panek, Dean of the Faculty of Informatics and Electronic Economy PUE and Professor Wiesław Koziara, Dean of the Faculty of Agronomy and Bioengineering PULS. In addition, patrons were the Branch in Poznan of the Polish Statistical Association, the Polish Biometric Society and the General Director of the Statistical Office in Poznan. The sponsors of the conference were: Revolution Analytics Company and Analyx as well as foundation SmarterPoland.

The main goal of the conference was to present the possibility of using the statistical software environment R in various fields of science and business, exchange experiences and integrate the R users in Poland. The first day of the event was devoted to workshops focusing on spatial data analysis, spatial data mining, processing large data sets with the **data.table** package (Dowle et al., 2014), survey data analysis with the **survey** package (Lumley, 2004, 2014), data visualization, as well as the introduction to the analysis of data in the statistical software environment R. The workshop was attended by nearly 130 participants. During the second and third day of the conference 29 presentations concerning the variety of applications of R in the fields of mathematics, biological sciences, economics and information technology as well as business applications. The participation in the conference was free of charge. There were two invited talks during the conference presented by: dr hab. Katarzyna Kopczewska (Faculty of Economic Sciences, University of Warsaw) entilted *Spatial modelling of economic phenomenon in R* (in Polish: *Przestrzenne modelowanie zjawisk ekonomicznych w R*) and dr hab. Przemysław Biecek (Interdisciplinary Centre for Mathematical and Computational Modelling, University of Warsaw) entitled *Project Beta and Bit, ULAM diagrams, data visualisation in R – my analytical atelier* (in Polish: *Projekt Beta i Bit, diagramy ULAM, wizualizacja z R, czyli o moim analitycznym atelier*).

All the presentations from the conference are available at the webpage `www.estymator.ue.poznan.pl/PAZUR` and here.

The organizing committee

The members of the organizing committee were: Maciej Beręsewicz (chairperson, Poznan University of Economics, Poznan Statistical Office), Joanna Zyprych-Walczack (Poznan University of Life Sciencies), Alicja Szabelska (Poznan University of Life Sciences) and Łukasz Wawrowski (Poznan University of Economics, Poznan Statistical Office).

The presentations

Beside the two invited talks the conference participants presented the following 27 topics (in alphabetical order):

- Adolfo Alvarez (Analyx): Mastering data frames with dplyr

- Zbigniew Bartkowiak (Poznan Archaeological Museum): The impact of trimming and mixing ore of Wladyslaw Jagiello's coins on the distribution of their weight

- Maciej Beręsewicz (Poznan University of Economics): Small area statistics in R

- Paweł Budzianowski (Adam Mickiewicz University): A copula-based multivariate analysis with R

- Damian Chmura (Academy of Humanities and Technology in Bielsko-Biala): The use of the R package in teaching courses of biocoeno in the fields of study: Environmental protection and environmental engineering

- Marcin K. Dyderski, Anna K. Gdula (Botanical Section students scientific foresters association in Poznan University of Life Sciences): Analysis of vegetation using vegan and eHOF packages

- Marek Gągolewski (Systems Research Institute, Polish Academy of Sciences): Processing string using stringi package and ICU libraries

- Jarosłąw Jasiewicz (Adam Mickiewicz University): GIS-R – Integrating geographic information systems and R

- Paweł Kliber (Poznan University of Economics): R in the financial analysis

- Paweł Kleka (Adam Mickiewicz University): From the data to publication. Automatic formatting of the results using knitr package

- Krzysztof Krawiec (Poznan University of Technology): Genetic progRamming

- Marcin Kosiński (Warsaw University of Technology): Archiving artifacts with the Archivist package

- Jakub Nowosad (Adam Mickiewicz University): Visualization of spatial data in R – from static to interactive map

- Michał Okoniewski (ETH Zurich, Scientific IT Services): R with external data sources in genomics – Nonsense case study

- Adrian Olszewski (KCR): GNU R in clinical trials – biostatistician workspace

- Natalia Reszka (PBS): Integrating R and NetLogo agent systems simulations

- Kamil Rotter (SKN Estimator, Poznan University of Economics): Internet as a source of data on the example of the Allegro service

- Artur Schwałko (QuantUp): If / how R can replace Excel in the company?

- Agnieszka Strzałka (University of Wroclaw): Using ggplot2 to visualize the growth of Streptomyces coelicolor

- Alicja Szabelska, Joanna Zyprych-Walczak (Poznan University of Life Sciences): Using R in the analysis of RNA-seq data

- Monika Szczerba, Marek Wiewiórka (Warsaw University of Technology): R + big (bio)data warehouses

- Łukasz Wawrowski (Poznan University of Economics): Data analysis from social networking sites

- Marek Wiewiórka (Warsaw University of Technology): Scala(-ble) R – R integration and the Scala language

- Marek Wiewiórka (Warsaw University of Technology), Alicja Szabelska (Poznan University of Life Sciences), Michał Okoniewski (ETH Zurich, Scientific IT Services): Disease gene signature – the use of parallel R and machine learning with MLInterfaces

- Adam Zagański (Wroclaw University of Technology/QuantUp): Analysis and forecasting of time series in R

- Zygmunt Zawadzki, Daniel Kosiorowski (Cracow University of Economics): Robust data mining using depthproc package

Bibliography

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