

Content

Multivariate data and the associated analyses of such are becoming more and more prominent in every research discipline. At the same time, R has become a leading statistical programming language in data science and statistics. The R software is free, highly extensible, and allows to easily produce publication-quality plots. The aim of this course is to equip participants with the skills to effectively use the software R to conduct clustering and multivariate analyses. The participants will learn about the different approaches to handle different multivariate data. All topics will be demonstrated in working examples and practiced with hands on examples.

Specific Topics

- Distance measures
- Cluster Analyses
- Correspondence Analyses
- Principal Component Analyses
- Multidimensional Scaling
- Variable selection and regularization
- MANOVA / MANCOVA

Aim

Participants with basic knowledge of R and statistics will be taught an overview of the most common multivariate approaches, as well as ways to appropriately present multivariate data. They will become familiar with the basic workflow of clustering and multivariate analyses and should become capable to conduct their own analyses, even if depending on methods that were not taught during this course.

Methodology

The workshop will consist of lectures, working examples and practical exercises, each covering roughly one third of the course time.

Target Group

Students, doctoral candidates and Postdocs those are familiar with the R language and the basics of linear regression and correlations. No previous knowledge in multivariate data analyses will be required.

Term and Application

- June 18-19, 2019, each day 9am-4pm
- Venue: 06120 Halle (Saale), von-Seckendorff-Platz 1, Kolloquiumsraum 5.10 (in the attic)
- Group size: maximum 20.
- Workshop-Language: English.
- **Application period between May 20 and June 17**
email to: koordination@ingra.uni-halle.de
- Applications are considered in chronological order of receipt. You get information.

Trainer

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