ANOVA and linear regression with R

Objective

The aim of this course is to introduce you to data modelling using R. We focus on linear regression and ANOVA in order to improve your generic statistics knowledge. We will pay particular attention to the “in-tuition” hidden behind the mathematics.

Please note that we cannot go into the specific data analysis problems of your research project.

Description

- Fitting straight lines: single and multivariate linear regression, linearizing transformations
- Fitting proportions and count data: generalized linear models
- Comparing the means of several samples: all you ever need to know about one- and two-way ANOVA
- Comparing linear regressions: analysis of covariance (ANCOVA)

Conditions

Participants should have a good understanding of basic statistics. Basic familiarity with R is advantageous, in particular:

- Using the R Studio environment
- How to invoke R functions, pass optional/named parameters
- Some familiarity with simple plotting commands

The workshop will take place at Campus Riedberg.