



BL.0216 Introduction to **R** and model selection

6.-8. January 2016, Seminar room 0.109, Plant Biology

What is it about?

Many of us are interested in questions like "which factors influence a certain biological phenomenon?", but are unsure which statistical test to apply. The purpose of the course is to understand which test is appropriate for your data. I'll start with standard statistical tests and explain in easy-to-understand terms how to use the R software to analyse your data. We'll cover linear and non-linear regression, t-tests, anova, ancova, multiple regression and other model-fitting techniques. This course provides a short introduction to the R environment, model fitting and then tackles in more depth the problem of model selection (the task of selecting "good" models from a set of candidate models).

The open source software R (<http://www.r-project.org>) has revolutionized the statistical data analysis for most bioscience disciplines. The R environment is completely free and runs on all common operating systems.

Day1


- a brief introduction to R
- t-test, linear regression, anova, ancova
- multiple regression, multifactorial anova
- exercises

Day2

- generalized linear models
- mixed effect models
- exercises

Day3

- model selection
- exercises

The course is limited to 20 participants, first come, first served. Please inscribe in Moodle and send me an email; if you want the ECTS, also inscribe in . Bring your own laptop and install the software before the course starts. There will be no exam at the end, but you will have to successfully work on a number of exercises each day.

Cheers,
Sven