

## Kurse der International Max Planck Research School „Primary Metabolism and Plant Growth“ in Potsdam an denen

### DRS-Studenten teilnehmen können

- **MapMen-tool for visualization and analysis of high throughput data**

- Combination of lecture and workshop
- **Teacher:** Dr. Marc Lohse ([lohse@mpimp-golm.mpg.de](mailto:lohse@mpimp-golm.mpg.de)), AG Usadel
- **Level of the unit & entrance requirements:** beginner to intermediate, participants should have a basic idea of microarrays
- **Content:** Introduction/overview of microarray technology; analysis of microarray data in general and in particular using the software tools Robin, MapMan and PageMan
- **Objective of the course:** General understanding of microarray technology; background insight into microarray analysis data; introduction into the microarray data analysis workflows provided by the MapMen tools (Robin, MapMan, PageMan); hands-on workshop on using the tools to analyse microarray data originating from different experimental platforms (Affy, AGILENT, two-color)
- **Date and place:** May 2011
- **Language:** English

- **Multivariate Data Analysis with R**

- Lecture with exercises
- **Teacher:** Detlef Groth ([groth@mpimp-golm.mpg.de](mailto:groth@mpimp-golm.mpg.de))
- **Level of the unit & entrance requirements:** medium, basic knowledge in R and statistics is required
- **Content:** Visualization and dimensionality reduction with Principal Components Analysis (PCA) and Multidimensional Scaling (MDS); unsupervised learning using hierarchical and partitional clustering; supervised learning using decision trees and k-nearest neighbours
- **Objective of the course:** Attendees will learn theoretical and practical background to approach analysis on multivariate datasets for visualization, dimensionality reduction and machine learning. Statistical solutions using the programming language R will be demonstrated. Attendees will learn to use those solution and to extend them to be used on their own data
- **Date:** 5.4. - 7.4.2011; 9:15-10:30 lecture 10:45-12:00 exercise; University Potsdam, Haus 14, Raum 3.02
- **Language:** English
- **Recommended reading:** Lecturer script to be delivered one week in advance

- **Lecture series “Molecular Plant Science: Genetics, Molecular Biology and Evolution”**
  - Lecture
  - **Teacher:** Dr. Carsten Müssig ([muessig@mpimp-golm.mpg.de](mailto:muessig@mpimp-golm.mpg.de))
  - **Content:** The lecture series provides both basic knowledge and a survey of recent developments in genetics, molecular biology, and evolutionary biology. The lectures will also explain relevant methodological background.
  - **Speakers:** Isabel Bäurle (UP), Stephanie Ruf (MPI-MP), Magdalena Musialak-Lange (MPI-MP), Alisdair Fernie (MPI-MP), Michael Schroda (MPI-MP), Ralph Tiedemann (UP), Michael Lenhard (UP), Wolf-Rüdiger Scheible (MPI-MP), Staffan Persson (MPI-MP), Carsten Müssig (GoFORSYS)

**Anmeldung: Einfach eine E-Mail an den entsprechenden Dozenten schreiben ob noch freie Plätze vorhanden sind.**

**Weitere Infos und aktuelle Kurse gibt es unter folgendem Link: [\\_http://moodle2008.mpimp-golm.mpg.de/course/category.php?id=3](http://moodle2008.mpimp-golm.mpg.de/course/category.php?id=3)**