# SPP 1665 Analytical Workshop:
# Analysis and Management of Electrophysiological Activity Data

Organizers: Sonja Grün and Michael Denker, Forschungszentrum Jülich

Date: 24.11. – 27.11.2014
Venue: Forschungszentrum Jülich

## Structure of the course
- Morning: Lectures 2 x 1.5 hours
- Afternoon: Exercises 4 hours together with tutors (incl. wrap-up)

## Requirements
- Basic general knowledge about programming (concept of loops, variables, functions; no Python-specific knowledge required)
- Basic knowledge about electrophysiological signals (spikes, LFPs,...)

Exercises will be conducted using the Python language. Students are asked to bring their own laptops. Python environments are provided to students by means of a virtual machine. Python code related to the exercises is distributed during the course.

## Preliminary Program

| Day | Lecturer | Topic |
|-----|----------|-------|
| 24.11. | NN | *Python for the analysis of electrophysiological data and analysis workflows* |
| 25.11. | Prof. Martin Nawrot FU Berlin | *Characterization of single neuron activity* |
| 26.11. | Prof. Sonja Grün Forschungszentrum Jülich | *Spike synchrony: From cross-correlations to higher order analysis methods* |
| 27.11. | Dr. Junji Ito Forschungszentrum Jülich | *Characterization of the local field potential and its relation to spiking activity* |

**For registration and additional information on travel arrangements, cost etc. to this workshop, please contact Kathrin Harringa (kathrin.harringa@zmnh.uni-hamburg.de). As we only have free spaces for max. 20 people, we will handle registrations following the "first come – first served" method.**