

## Master Course – Feb 2010

# Analysis and Interpretation of Neural Data

Modul “Analyse und Theorie Neuronaler Prozesse C” (P - 23906)

Prof. Martin Nawrot, Freie Universität Berlin

*This **compact course** introduces the student to the analysis of neural data on the level of intracellular and extracellular measurements of single neuron activity. The course combines theoretical introduction in form of a morning lecture with practical experience in analyzing real neural data using Matlab.*

*The course will introduce the following themes:*

***Intracellular analysis of synaptic events | Basic spike train and firing rate analysis | Olfactory coding in the insect antennal lobe | Directional tuning in the monkey motor cortex***

*The structure of the course is compact: During 5 full days the students attend lectures and work on a different topic and data set each day. In between individual topic days there are bridging days which allow the students to complete their exercises. The individual topics require extensive preparation on the basis of a mandatory reading list which will be discussed during an initial meeting (Vorberechungsseminar). A final exam will take place at the beginning of the next semester.*

*This course is intended for **Master Students** in the following programs: **Bioinformatics** (FU), **Neurobiology & Behaviour** (FU), **Computational Neuroscience** (HU/TU). Open to students from other master programs. The number of participants is restricted to max. 12 students.*

**Dates:** 16.2., 18.2., 22.2., 24.2., 26.2.2010 | 9:15h – 17:00h

**Location:** FU: PC Pool Bioinformatics, Raum 017, Arnimallee 6

**Initial Meeting:** 8.12.2009, 17:00h, FU: Seminar Room II, Zoology, Königin-Luise Str. 1-3

**Course Requirements:** Basic programming skills

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