Course title  
Matlab scripting (and debugging) for neuro-signal processing: special focus on EEG pre-processing

Organizer(s)  
Anna Custo (Unige and CIBM)

Credits  
2 ECTS

Summary  
Learn to edit or create matlab scripts for faster data processing, in particular for EEG data processing. Learn how to use the matlab debug tool to customize scripts and functions or to fix problems. In particular: load a list of files for automated processing, open files of different data type (EEG, ERP, TXT, etc.), simple operations on file content (e.g., compute gfp peaks/extract peaks, read markers/verbose files info), use/customize EEGLab routines (e.g., display topographies, dc removal, avg reference, bandpass filter, etc.)

Course level  
Intermediate (PhD/advanced masters/post-docs)

Pre-requirements  
Working knowledge of Matlab

Content of course sessions  
- 8.11: matlab scripting and debugging overview; data setting
- 9.11: automatic data processing I: input preparation
- 15.11: automatic data processing II: data manipulation
- 16.11: debugging; eeglab and routine customization

Course materials  
Slides will be uploaded on the course page a couple of days before class; own laptops can be used provided they have Matlab and EEGLab installed.

Location  
Campus Biotech computer room, Geneva

Course dates  
2 Tuesdays and 2 Wednesdays between 8.11. – 16.11.2016 from 9:00-12:00 and 14:00-17:00.

Evaluation  
grading based on performances in class, student’s progresses and active participation

Registration  
The course is limited to 10 students. Register before October 15 by writing an email to: anna.custo@unige.ch with the course title as subject. Places will be given on first come – first served basis.