Introduction to Matlab Programming

February, 27th and March, 1st 2013

Course deliverer: Guillaume Rousselet, Institute of Neuroscience & Psychology

This course introduces students to the Matlab environment through hands-on sessions providing a mix of lectures and in class exercises. Students will create and manipulate Matlab variables, program functions and data analysis scripts. More advanced students will explore data sets using descriptive and inferential robust statistics, as well as graphical representations.

Objectives

Students will be able to to write and describe routines involving:
- initializing and manipulating variables, performing basic mathematical operations, producing graphs and figures.
- using conditional statements (greater than, less than)writing basic scripts.
- implementing flow control to scripts (for loops, if statements), using functions.
- initializing and manipulating advanced variables (N-dimensional matrices, structures), advanced flow control, using file operations.
- producing histograms, boxplots, calculating measures of central tendency, dispersion, skewness, kurtosis.
- percentile bootstrap, hypothesis testing and P values.