Matlab SPM

March, 6th and 8th 2013

Course deliverer : Dr. Cyril Pernet, University of Edinburgh, Division of Clinical Neurosciences

Crash course in functional MRI

To be as efficient as one can in 2 days, the course is split in 3 sections

• lecture on fMRI data preprocessing + hands on using SPM8
• lecture on mass-univariate statistical analysis + hands on using SPM8 and different toolboxes to visualize data, extract signals, etc..
• lecture on connectivity

The lectures focus on principles without getting into details. The hands on section will use the data sets available on the SPM website.

Pre-requisite

- know about the basics involved in fMRI
- know about the basics about the BOLD signal
- understanding of fMRI designs

for these see e.g. www.sbirc.ed.ac.uk/cyril/fmri.html

imaging.mrc-cbu.cam.ac.uk/imaging/DesignEfficiency

- basics of statistical analyses (t-tests, ANOVA, etc)

To get a head start on fMRI analyses principles

imaging.mrc-cbu.cam.ac.uk/imaging/AnalysisPrinciples

Recommended reading on Mendeley @

www.mendeley.com/groups/3002981/neuroimaging-and-stats-teaching/papers/

Lectures are available @ www.sbirc.ed.ac.uk/cyril/teaching.html