Statistical Parametric Mapping 2007

(Presented by the Wellcome Trust Centre for Neuroimaging)

May 17 (Thurs) - 19 (Sat) 2007

The course will present instruction on the analysis and characterisation of functional imaging data. This includes the following modalities: functional Magnetic Resonance Imaging (fMRI), Electro-encephalography (EEG) and Magneto-encephalography (MEG). The three-day course will be divided into **theoretical** sessions covering experimental design and statistical inference and **practical** sessions in which SPM will be used to analyse exemplar data sets.

Thursday 17th May Theoretical sessions

9.30 - 9.45 Introduction and Overview Karl Friston

9.45 - 10.45 Image Registration John Ashburner

Coffee

11.00 - 11.45 The General Linear Model Klaas Stephan

11.45 - 12.30 Contrasts and Classical Inference Jean-Baptiste Poline

Lunch

13.30 - 14.00 Group Analysis Will Penny

14.00 - 14.45 Random Field Theory *Tom Nichols*

Tea

Practical sessions

- 15.15 16.15 Introduction to spatial processing

 John Ashburner and Guillaume Flandin
- 16.15 17.00 Introduction to fMRI analysis

 Hanneke Den Ouden and Christophe Phillips
- 17.00 18.00 Clinic Karl Friston

Friday 18th May Theoretical sessions

| Experimental design Christian Ruff |
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| Event-related fMRI Will Penny Coffee |
| Bayesian Inference Jean Daunizeau |
| EEG/MEG Source Localisation Jeremie Mattout and Christophe Phillips |
| Lunch |
| Dynamic Causal Modelling for fMRI Andre Marreiros |
| Dynamic Causal Modelling for ERP/ERFs Stefan Kiebel |
| Practical sessions |
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| Event-related fMRI analysis Tom Nichols and Guillaume Flandin |
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| Tom Nichols and Guillaume Flandin |
| Tom Nichols and Guillaume Flandin Tea Dynamic Causal Modelling for fMRI |
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Saturday 19th May Practical sessions

10.00 - 10.30 Introduction to practical sessions Will Penny

10.30 – 14.30 Parallel practical sessions

These sessions will cover the following topics:

Voxel-based Morphometry *John Ashburner and Christophe Phillips*

Basic analysis of fMRI Guillaume Flandin and Sara Bengtsson

Basic analysis of fMRI
Uta Noppeney and Justin Chumbley

Advanced analysis of fMRI Christian Ruff and Carlton Chu

Advanced analysis of fMRI *J.-B. Poline and Marcus Gray*

Dynamic Causal Modelling for fMRI Klaas Stephan and Felix Blankenberg

Dynamic Causal Modelling for fMRI Lee Harrison and Andre Marreiros

M/EEG analysis Stefan Kiebel, CC Chen and Jean Daunizeau

M/EEG analysis

Marta Garrido, James Kilner and Jeremie Mattout

14.30 – 16.00 Summary session

(Group representatives will give mini-presentations on what they've learnt) *Karl Friston*