

Short Course on:

# Statistical Parametric Mapping for MEG/EEG

(Presented by the Wellcome Trust Centre for Neuroimaging)

May 09 (Mon) - 11 (Wed) 2011

The course will present instruction on the analysis of EEG and MEG data. The first two days will combine theoretical presentations with practical demonstrations of the different data analysis methods implemented in SPM. On the last day participants will have the opportunity to work on SPM tutorial data sets under the supervision of the course faculty. We also invite students to bring their own data for analysis. The course is suitable for both beginners and more advanced users. We advise students to gain at least some minimal familiarity with the methodology, for example, from reading introductory articles available from the SPM web page (<http://www.fil.ion.ucl.ac.uk/spm/doc/intro/>).

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## Monday May 9<sup>th</sup>

9.30 - 10.15 What are we measuring with M/EEG?  
*Gareth Barnes*

10.15 - 11.00 Data pre-processing  
*Vladimir Litvak*

*Coffee*

11.30 - 12.15 M/EEG pre-processing demo  
*Vladimir Litvak/Melanie Boly*

12.15 - 13.00 General linear model and classical inference  
*Stefan Kiebel*

*Lunch*

14.00 - 14.45 Multiple comparisons problem and solutions  
*James Kilner*

14.45– 15.30 Statistical analysis of images demo  
*James Kilner/Jason Taylor*

*Coffee*

16.00 – 17.00 Statistical analysis of M/EEG - practical aspects  
*Jason Taylor*

17.00 - 18.00 Special interest talk: Impaired top-down processes in the vegetative state revealed by SPM analysis of EEG data.  
*Melanie Boly*

## Tuesday May 10<sup>th</sup>

9.30 - 10.15 Bayesian inference  
*Jeremie Mattout*

10.15 - 10.45 M/EEG inverse problem and solutions  
*Christophe Phillips*

10.45 - 11.15 Imaging source reconstruction in the Bayesian framework  
*Rik Henson*

*Coffee*

11.45 - 12.15 M/EEG source analysis – demo  
*Jeremie Mattout/Gareth Barnes*

12.15 - 13.00 The principles of DCM  
*Will Penny*

*Lunch*

14.00-14.45 DCM for evoked responses  
*Jean Daunizeau*

14.45 - 15.30 DCM for steady state responses  
*Rosalyn Moran*

15.30 - 16.15 DCM for time-frequency  
*Bernadette van Wijk*

*Coffee*

16.45 - 17.30 DCM demo  
*Andre Marreiros*

17.30 Clinic  
*Karl Friston*

## Wednesday May 11<sup>th</sup>

9.30 – 17.00

Practical hands-on session in UCL computer class (Gordon St. 25, main UCL campus).  
Participants can either work on SPM tutorial datasets or on their own data with the help of the faculty.