Statistical Parametric Mapping for fMRI and MRI/VBM

Thursday 12\textsuperscript{th} October 2017 – Saturday 14\textsuperscript{th} October 2017

UCL Institute of Neurology
University College London, WC1N 3BG
Course outline

The course will present instruction on the analysis and characterisation of neuroimaging data, including Magnetic Resonance Imaging (MRI) and functional MRI (fMRI). 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. This course is suitable for 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 website (http://www.fil.ion.ucl.ac.uk/spm/doc/intro/).
Day 1 – Thursday 12th October
4th Floor Seminar Room, 12 Queen Square

09:00 - 09:30 Registration and Coffee
Ground floor

09:30 - 10:00 Introduction and Overview
Guillaume Flandin

10:00 - 11:00 Spatial Preprocessing (Theory & Demo)
Ged Ridgway

Coffee
1st Floor, Boardroom

11:30 - 12:00 The General Linear Model
Nadège Corbin

12:00 - 12:45 Contrasts and Classical Inference
Christophe Phillips

Lunch
1st Floor, Boardroom

13:45 - 14:15 Group analysis
Marion Rouault

14:15 - 15:00 Random Field Theory
Tom Nichols

Tea
1st Floor, Boardroom

15:30 - 16:15 Voxel-Based Morphometry
John Ashburner

16:15 - 17:00 Demo: Voxel Based Morphometry
Mikael Brudfors

17:00 - 18:00 “Questions and Answers” Clinic
Karl Friston
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>09:30 - 10:15</td>
<td>Experimental Design</td>
<td>Mona Garvert</td>
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<td>10:15 - 11:00</td>
<td>Event-related fMRI</td>
<td>Helen Barron</td>
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<td><em>Coffee</em></td>
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<td>11:30 - 12:15</td>
<td><em>Demo: Event-related fMRI</em></td>
<td>Misun Kim</td>
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<td>12:15 - 13:00</td>
<td>Bayesian Inference</td>
<td>Chris Mathys</td>
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<td><em>Lunch</em></td>
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<td>14:00 - 15:00</td>
<td>Dynamic Causal Modelling for fMRI</td>
<td>Peter Zeidman</td>
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<td>15:00 - 16:00</td>
<td>DCM for fMRI (Advanced Topics)</td>
<td>Klaas Stephan</td>
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<td>16:30 - 17:15</td>
<td><em>Demo: DCM for fMRI</em></td>
<td>Adeel Razi</td>
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<td>17:15 - 18:00</td>
<td>“Questions &amp; Answers” Clinic</td>
<td>Karl Friston</td>
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<td>18:30 -</td>
<td>Social Event</td>
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Day 3: Practical Workshops
4th floor Seminar Room, 12 Queen Square
Saturday 14th October

09:30 - 10:00  Introduction, Allocation of groups

10:00 - 15:30  Parallel session in small groups covering:
   fMRI analyses (several levels)
   Voxel-Based Morphometry (VBM)
   Dynamic Causal Modelling (DCM)

Coffee  Ground floor, Reception

16:00 - 17:00  Workshop feedback presentations