Statistical Parametric Mapping for fMRI/VBM

17th - 19th October 2022
9:30 - 18:00 BST

ONLINE
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 spatial preprocessing, experimental design, statistical inference and dynamic causal modelling, and practical sessions in which the SPM software 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 or by following data analysis examples in the SPM manual.
Course Content

Spatial Preprocessing
The General Linear Model
Contrast and Classical Inference
  Group Analysis
Random Field Theory
Voxel-based Morphometry
Experimental Design
Event-related fMRI
Bayesian Inference
Dynamic Causal Modelling
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:30 - 9:50</td>
<td>Welcome</td>
<td>SPM Faculty</td>
</tr>
<tr>
<td>9:50 - 10:15</td>
<td>Introduction &amp; Overview</td>
<td>Guillaume Flandin</td>
</tr>
<tr>
<td>10:15 - 11:15</td>
<td>Spatial Preprocessing</td>
<td>John Ashburner</td>
</tr>
<tr>
<td>11:15 - 12:00</td>
<td>The General Linear Model</td>
<td>Nadège Corbin</td>
</tr>
<tr>
<td>12:00 - 13:00</td>
<td>Contrasts &amp; Classical Inference</td>
<td>Christophe Phillips</td>
</tr>
<tr>
<td>13:00 - 14:00</td>
<td>Lunch Break</td>
<td></td>
</tr>
<tr>
<td>14:00 - 15:00</td>
<td>Group Analysis</td>
<td>Will Penny</td>
</tr>
<tr>
<td>15:00 - 16:00</td>
<td>Voxel-based Morphometry</td>
<td>Christian Lambert</td>
</tr>
<tr>
<td>16:00 - 17:00</td>
<td>Random Field Theory</td>
<td>Tom Nichols</td>
</tr>
<tr>
<td>17:00 - 18:00</td>
<td>Q&amp;A Clinic</td>
<td>Karl Friston</td>
</tr>
</tbody>
</table>
Tuesday 18th October

9:30 - 10:00  Welcome  SPM Faculty

10:00 - 11:30  Experimental Design  Carolin Moessnang

11:30 - 13:00  Event-related fMRI  Christian Ruff

13:00 - 14:00  Lunch Break

14:00 - 17:00  Practical Sessions  SPM Faculty

17:00 - 18:00  Q&A Clinic  Karl Friston
Wednesday 19th October

9:00 - 9:30  Welcome  
            SPM Faculty

9:30 - 10:45 Bayesian Inference  
            Chris Mathys

10:45 - 11:45 Introduction to DCM  
            Edda Bilek

11:45 - 13:00 DCM: Testing Hypotheses  
            Peter Zeidman

13:00 - 14:00 Lunch Break

14:00 - 17:00 Practical Sessions  
            SPM Faculty

17:00 - 18:00 Q&A Clinic  
            Karl Friston