wellcome centre human neuroimaging

Statistical Parametric Mapping for fMRI/VBM

17th - 19th October 2022

9:30 - 18:00 BST

ONLINE

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 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

Tutors


John Ashburner


Edda Bilek

SPM CENTRAL
Nadège Corbin

SPM CENTRAL
Guillaume Flandin


Karl Friston


Joost Haarsma


Olivia Kowalczyk


Nicole Labra Avila


Christian Lambert


Chris Mathys


Carolin Moessnang


Tom Nichols


Will Penny


Christophe Phillips


Christian Ruff


Konrad Wagstyl


Peter Zeidman

Monday 17th October

9:30 - 9:50	*Welcome*	SPM Faculty
9:50 - 10:15	*Introduction & Overview*	Guillaume Flandin
10:15 - 11:15	*Spatial Preprocessing*	John Ashburner
11:15 - 12:00	*The General Linear Model*	Nadège Corbin
12:00 - 13:00	*Contrasts & Classical Inference*	Christophe Phillips
13:00 - 14:00	Lunch Break	
14:00 - 15:00	*Group Analysis*	Will Penny
15:00 - 16:00	*Voxel-based Morphometry*	Christian Lambert
16:00 - 17:00	*Random Field Theory*	Tom Nichols
17:00 - 18:00	*Q&A Clinic*	Karl Friston

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