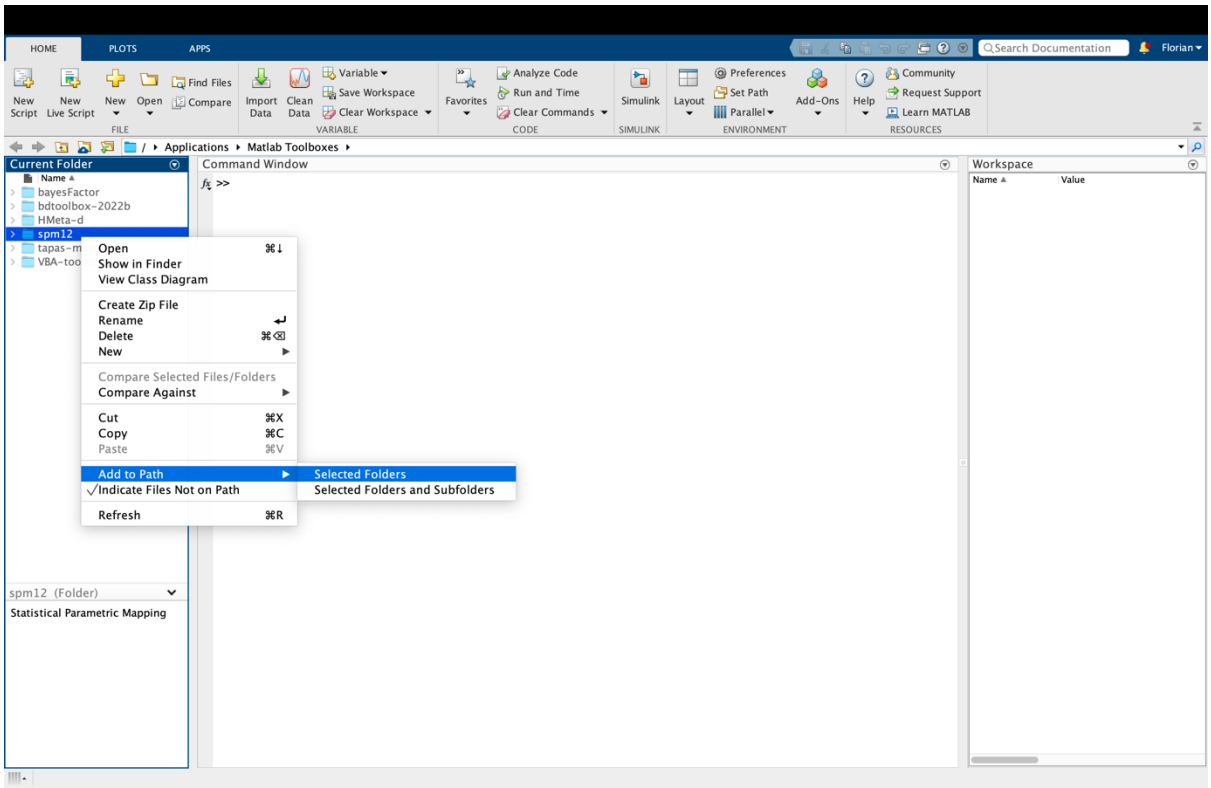
Tutorial G - Dynamic causal modeling for EEG

Content

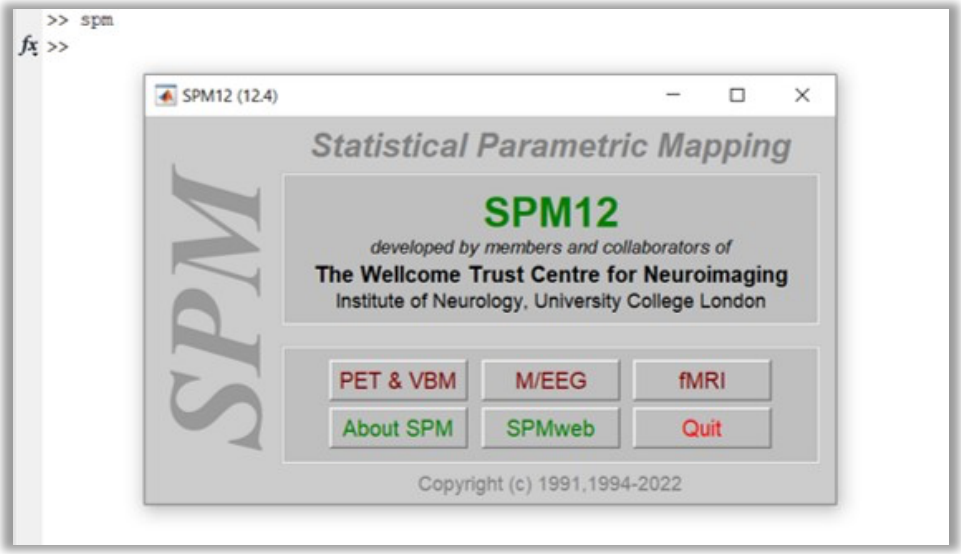
This tutorial will examine specific features of EEG data that can be used to optimize a cell and receptor specific model of brain connectivity. EEG data acquired from an event-related (ERP) visual memory study will be examined. The assumptions and parametrizations of the neural mass models will be explained. Students will learn to use the SPM graphical user interface and to write batch code in MATLAB to perform Dynamic Causal Modeling of EEG.

Installation guide

1. Make sure you install Matlab and that you can open and run it: https://www.mathworks.com/products/get-matlab.html
2. Download SPM 12 (https://www.fil.ion.ucl.ac.uk/spm/software/download/).
3. Place the uncompressed spm12 folder in your preferred directory.
4. Open Matlab and add the main SPM-folder (**but not all subfolders**) to your search path from the Matlab 'current folder' window (column on the left in the image below).



5. Type "spm" into the command window and press Enter. If the installation was successful, this will open the SPM interface:



6. Finally please download the data and DCM model structs from this repository: https://github.com/AshleyTyrer/DCM_for_ERPs/tree/main

Further support

If you have trouble getting to this point before the Practical Tutorial Session, please consult the **#tutorial-helpdesk channel on Discord**. You will be given access to the CPC discord workspace at the beginning of the course. Check if anyone has had the same issue and has managed to solve it and how. If no one else has encountered the same problem, post your question. We will be monitoring the channel and providing support. In addition, given the volume of attendees this year, we would be really grateful if you could assist us by answering queries on Discord yourself if you come across a problem, you know and have solved.

Tutors

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