

CPCZurich2023 Practical Tutorial G – Dynamic Causal Modeling for EEG

Installation Guide

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This description guides you through the installation of the code and data needed for the DCM for EEG tutorial. In case additional files are needed, we will inform you in time, so that you can also download them before the tutorial.

A) Install MATLAB

Make sure you install Matlab and that you can open and run it:

<https://www.mathworks.com/products/get-matlab.html>

B) Download SPM12

For this tutorial, you will need SPM12, which can be downloaded from <http://www.fil.ion.ucl.ac.uk/spm/software/spm12/>.

C) Test the installation

1) **Open Matlab.** You will see an interface similar to the following:

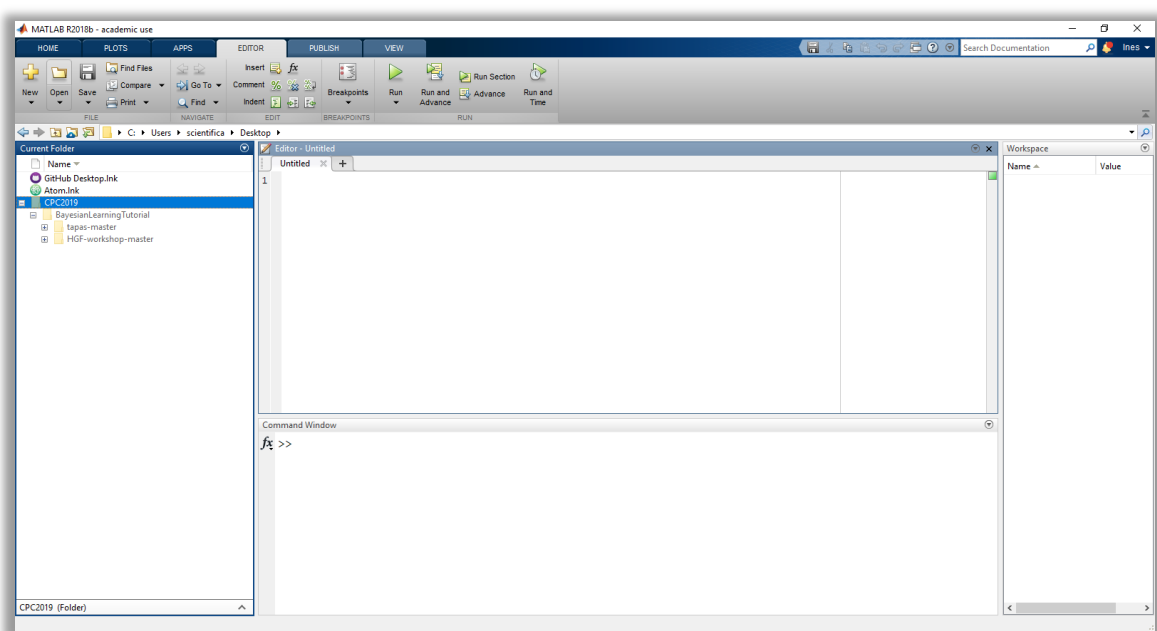


Fig. 1: Illustration of the MATLAB interface.

- 2) **Setup SPM:** Unzip the SPM12 zip-file and add the “spm12” folder to your Matlab path. To do this in Matlab, first navigate to the directory containing the spm12 folder. Then right-click on the spm12 directory and on “Add to Path”, “Selected Folders”. Do not add all subfolders!

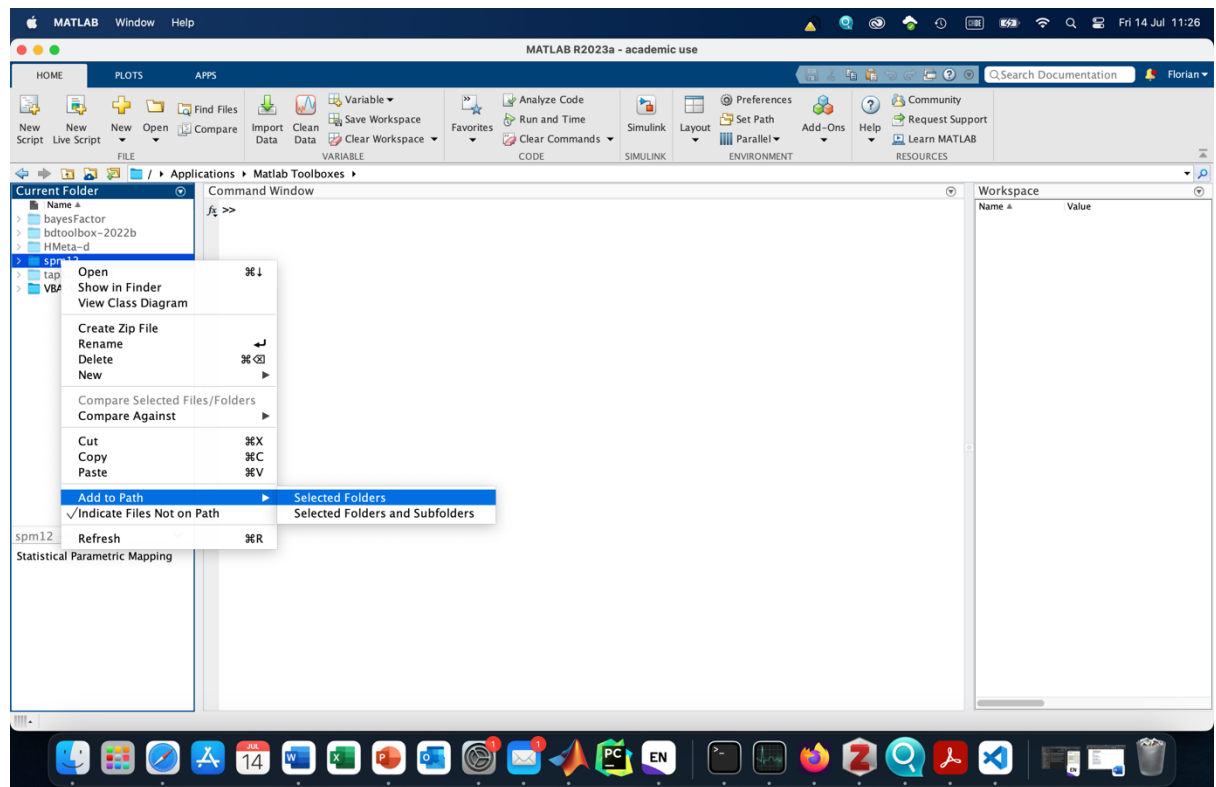


Fig. 2: Illustration of how to add a path in MATLAB.

D) Start SPM12

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

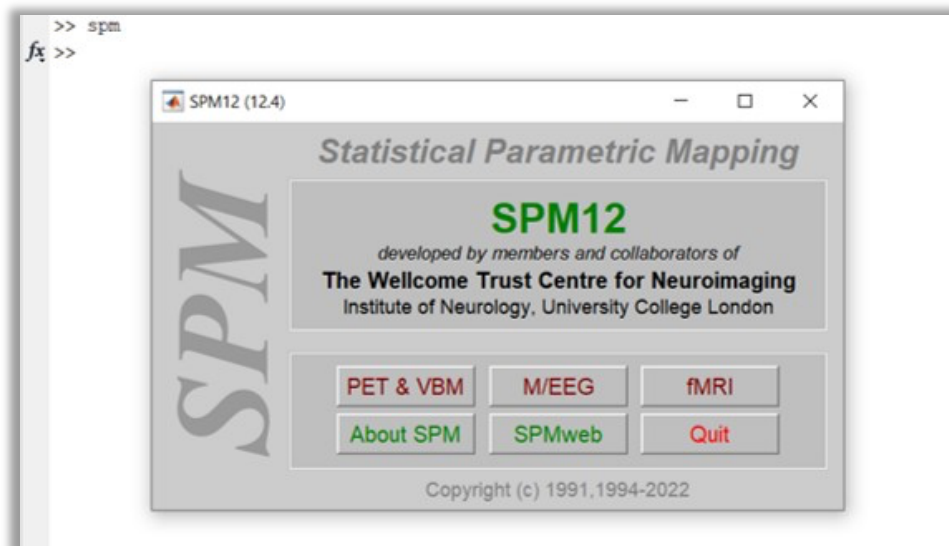


Fig. 3: Illustration of the SPM interface.

Well done! You're all set up for the Practical Tutorial session.

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. **Florian** 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.

For those who need more personalized help, Florian will be offering support hours. More information on the exact time will follow.

If you have the following issues with MEX files on macOS Catalina:

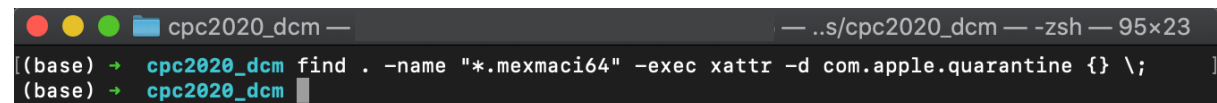
"*.mexmaci64" cannot be opened because the developer cannot be verified. macOS cannot verify that this app is free from malware" or "Code signature not valid for use in process using Library Validation: library load disallowed by system policy"

Please open a Terminal and navigate to the folder where you placed your **spm12** folder. In the following example, the **spm12** folder was placed in a folder named **cpc2020_dcm** in the **Downloads** folder.



A terminal window titled 'cpc2020_dcm' with a path bar showing '..s/cpc2020_dcm' and '-zsh' with a window size of '95x23'. The prompt is '(base) ~' and the command entered is 'cd Downloads/cpc2020_dcm'.

```
find . -name "*.mexmaci64" -exec xattr -d com.apple.quarantine {} \;
```



A terminal window titled 'cpc2020_dcm' with a path bar showing '..s/cpc2020_dcm' and '-zsh' with a window size of '95x23'. The prompt is '(base) cpc2020_dcm' and the command entered is 'find . -name "*.mexmaci64" -exec xattr -d com.apple.quarantine {} \;'.

This should solve the problem and allow you to run the demo. This solution was taken from the SPM Wiki:

[https://en.wikibooks.org/wiki/SPM/Installation_on_64bit_Mac_OS_\(Intel\)#macOS Catalina](https://en.wikibooks.org/wiki/SPM/Installation_on_64bit_Mac_OS_(Intel)#macOS_Catalina)