CPCZurich2022 Practical Tutorial K

Advanced models of connectivity: regression DCM

Installation Guide

Authors / Tutors: Stefan Frässle (stefanf@biomed.ee.ethz.ch), Imre Kertesz (ikertesz@biomed.ee.ethz.ch), Computational Psychiatry Course 2022, Zurich, Switzerland.

Revision and testing: Alex Hess (hess@biomed.ee.ethz.ch)

rDCM Toolbox

In order to install the *regression **D**ynamic **C**ausal **M**odeling (rDCM)* Toolbox, please follow these steps:

1) **Install MATLAB:** For this tutorial, you need MATLAB with the statistics toolbox. We recommend using MATLAB R2016a or newer (https://www.mathworks.com/products/get-matlab.html).

2) **Install a C Compiler:** For the rDCM Toolbox, you need a C-compiler alongside MATLAB. We recommend **MinGW** (Windows), **Xcode** (Mac) or **GCC** (Linux) which are available free of charge. Detailed instructions can be found at: https://ch.mathworks.com/support/requirements/supported-compilers.html.

3) **Download TAPAS** (*Translational **A**lgorithms for **P**sychiatry **A**dvancing **S**cience*): Download the TAPAS toolbox (as zip-file) at: https://translationalneuromodeling.github.io/tapas/#download.

4) Put the code and the material in a folder/directory which you will use for the practical tutorial (e.g., Desktop/CPC2022/rDCMTutorial).
Make sure you do not have any spaces in the titles of your folders!

5) **Open MATLAB**. You will see the following interface:

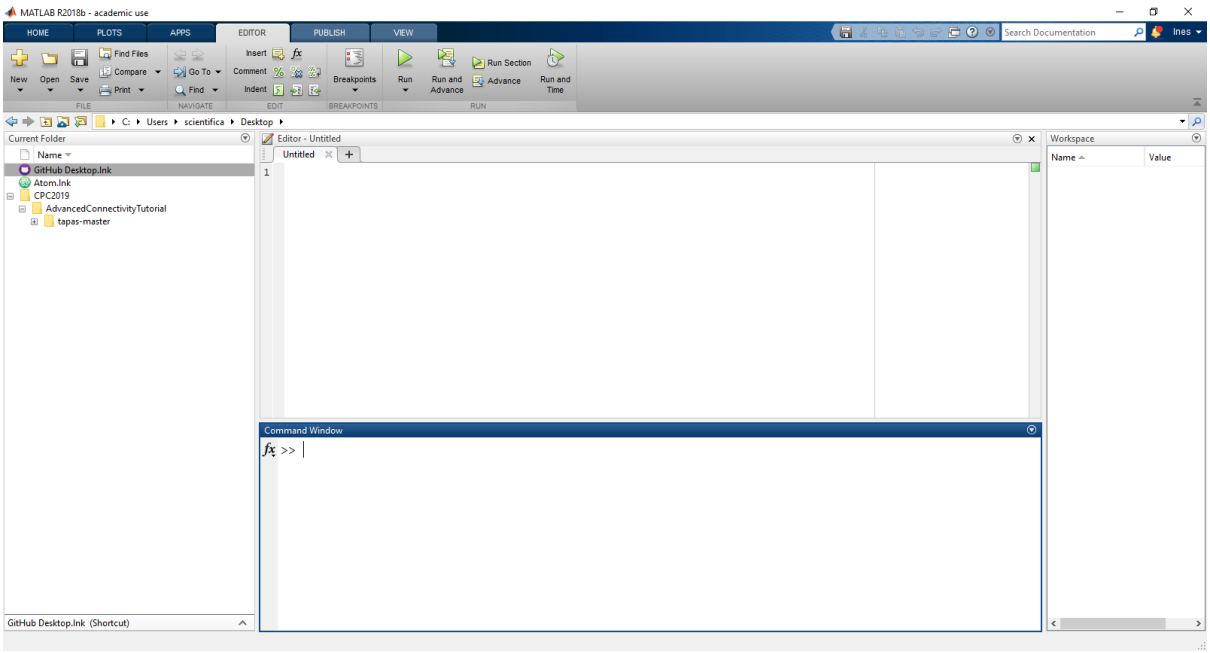

Fig. 1: Illustration of MATLAB interface.

6) **Setup TAPAS:** Unzip the zip-file and add the "tapas/rDCM" folder to your MATLAB path by, in MATLAB, navigating to the folder/directory you prepared (e.g., "rDCMTutorial"). Then right-click on the directory and "Add to Path", "Selected Folders and Subfolders".

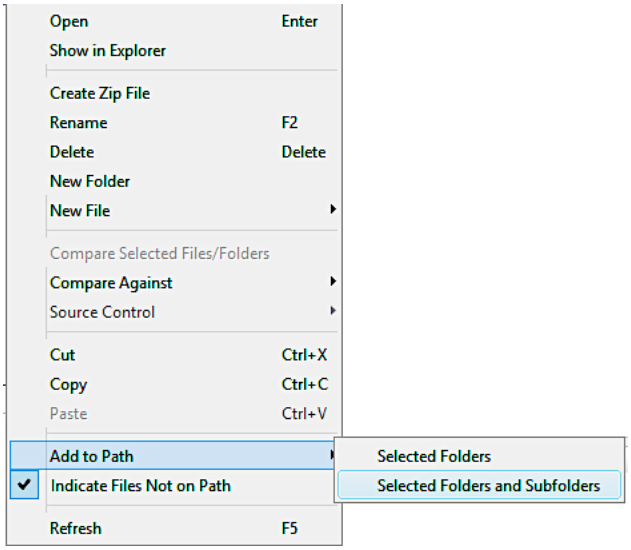

Fig. 2: Illustration of how to add a path (and all its subfolders) in MATLAB.

7) Well done! You're all set up for the Practical session. If you are keen, you could already have a look at the manual of the toolbox and run the short beginner's tutorial (**tapas_rdcm_tutorial.m**) before the Practical Tutorial session.

If you have trouble getting to this point before the Practical Tutorial Session, please contact Stefan Frässle (stefanf@biomed.ee.ethz.ch).

We look forward to seeing you all at the CPCZurich2022!