Code Review Checklist
Most important before paper
Important every session
Unclear

Usability	Comments (at least Yes / No)
Is the code easy to install? Are there setup instructions and a list of requirements?	No: lacks the import requirements (advice use a pyproject.toml)
Is there an example script or a full pipeline that is easy to run and understand?	Yes the comments are clear. The overall structure could be more modular (i.e. split processing steps in smaller functions)
Data preparation	
Are data loading and analysis implemented as separate steps? Ideal: have a data loader class	The constants in data_analysis_utils should be at the top of the file for readability. There is dead code that could be stripped out.
Is ALL data used available in the cluster	We don't know ?
Analysis & Plotting	
Are the different steps of the analysis clearly identified in the README?	There is a broad overview.
Does the analysis code reflect what is described in the paper? If applicable	We haven't seen the paper
Is it clear what code is used to create each of the figures or panels in the paper?	Yes + good adding the final figures in the repo.
Code quality	
Project in periodically updated in github, gitignore, README	Lacks a .gitignore, for example there is a .DS_store on github
Project structure: folders: data, notebooks, scripts, figures	Very clear.
Is the code well organized (functions, classes, modules, settings, ... as applicable)?	Lacks smaller explicit functions to make the code more modular.
Are all functions and classes documented?	Docstrings could be longer and more precise on what is being returned.
Are some values hardcoded?	Yes but in explicit constants.

Can any of the code be replaced by existing packages?	Haven't check
Are there any obvious optimisations that will improve performance?	Haven't check
Is there any redundant code that should be removed?	Yes, some extra loops on subjects could be avoided and only done once.
Does the code agree with basic style guidelines (e.g. PEP8 for Python)	No
Variables names are self explanatory (eg no a, b, c etc)	Yes
Are there any passwords in the repo or exposed in the code?	No
Is any identifying information unwillingly exposed?	No