

# bidspm internal workshop

2023 01 13

# menu

- Installation
- Architectural tour
- Live demos
  - Preprocess + Stats
  - Stats on fmripred data set

# Installation

- Needs git
- Meant to have one install per project (one project, one bidsfm version)
- bidsfm will complain if more than one bidsfm in the path
- Initialisation
- vs-code extensions

# Architectural tour

- MATLAB/Octave Command line interface (CLI)
  - BIDS app like API (**application programming interface**)

- Actions

- Listed by

```
bidspm help
```

- Workflows

- Loop over subjects
  - Call batch setters to prepare batches to pass to SPM12
  - [src/workflows/\\*/bidsSomething.m](#)

- Batch setters

- Create batches
  - [src/batches/\\*/setBatchSomething.m](#)

# Architectural tour

- Submodules
  - [lib/](#)\*
  - Installed with bidsfm
  - Meant to work without bidsfm if need be
  - A given version of bidsfm is linked to a specific version of each sub-modules

# Architectural tour

- demo
  - demos
    - Meant to work on some specific data
    - MoAE and facerep
      - based on SPM example datasets
      - download data, run preprocessing, run stats
  - scripts
    - More generic and meant to help you get started

# Architectural tour

- Documentation
  - FAQ: <https://bidspm.readthedocs.io/en/latest/FAQ.html>
  - Read the docs:
    - [https://bidspm.readthedocs.io/en/latest/general\\_information.html](https://bidspm.readthedocs.io/en/latest/general_information.html)
    - searchable
  - Manual (PDF)
    - [docs/bidspm-manual.pdf](#)
  - Past issues

# Live demos

## preprocess and stats

- <https://github.com/OpenNeuroDatasets/ds003717.git>
- dry\_run
- Options: `help` `checkOptions`
- [src/defaults/spm\\_my\\_defaults.m](#)
- [jobs](#)
- verbosity
- BIDS validation
- bids-matlab to index and query files



# Live demos

## preprocess and stats

- <https://github.com/OpenNeuroDatasets/ds003717.git>
- preprocess
- create default BIDS stats model
- fine tune the model by hand
- validate the bids stats model
- run whole brain stats

# Live demos

## preprocess and stats

- <https://github.com/OpenNeuroDatasets/ds003717.git>
- Running different models
- Model transformation:
  - <https://github.com/bids-standard/variable-transform>
  - <https://bids-matlab.readthedocs.io/en/latest/transformers.html>

# Live demos

## preprocess and stats

- <https://github.com/OpenNeuroDatasets/ds003717.git>
- Viewing results
  - csv
  - glass brain
  - montage
  - NIDM results

# Live demos

## preprocess and stats

- <https://github.com/OpenNeuroDatasets/ds003717.git>
- create ROI
- run roi based analysis