nipy.org

Welcome to NIPY. We are a community of practice

(https://en.wikipedia.org/wiki/Community_of_practice) devoted to the use of the Python programming language in the analysis of

neuroimaging data. You can find us on github (https://github.com/nipy), as well as social media [blog] (http://neuroimaging.tumblr.com) [twitter]

(https://twitter.com/nipyorg). We welcome contributions

(/contribute.html) and ask that you read about our standards of conduct (/conduct.html). You are also invited to ask for help. (/help.html)

Our community includes the following projects:

Analysis Pipeline Management

♠ (https://github.com/nipy/nipype) ♠ (https://nipype.readthedocs.io/en/latest/) nipype (/packages/nipype/index.html) - Provides a uniform interface to existing neuroimaging software.

Computational Anatomy

- ↑ (https://github.com/dipy/dipy) ↑ (http://dipy.org/) dipy (/packages/dipy/index.html) Focuses on diffusion magnetic resonance imaging (dMRI) analysis.
- ↑ (https://github.com/nipy/mindboggle) ↑ (http://mindboggle.info/) mindboggle (/packages/mindboggle/index.html) Improves the accuracy, precision, and consistency of labeling & morphometry of brain imaging data.

File I/O and Data Management

- ♠ (https://github.com/nipy/nibabel) ♠ (http://nipy.org/nibabel/) nibabel
 (/packages/nibabel/index.html) Read / write common neuroimaging file formats.
- ↑ (https://github.com/scitran/sdm) ↑ (https://scitran.github.io/) <u>Scitran SDM</u> (/packages/sdm/index.html) Delivers efficient and robust archiving, organization, and sharing of scientific data.

Functional MRI

- ↑ (https://github.com/nipy) ↑ (http://nipy.org/nipy/) Nipy (/packages/nipy/index.html) Analysis of structural and functional neuroimaging data.
- ↑ (https://github.com/nipy/nitime) ↑ (http://nipy.org/nitime/) Nitime (/packages/nitime/index.html) Time-series analysis of neuroscience data.
- (https://github.com/kdesimone/popeye) (http://kdesimone.github.io/popeye/)
 tumpopeye (packages/popeye/index.html) Population receptive field estimation

Machine Learning

- ↑ (https://github.com/nilearn/nilearn) ↑ (http://nilearn.github.io) Nilearn
 (/packages/nilearn/index.html) Fast and easy statistical learning on neuroimaging data.
- ↑ (https://github.com/PyMVPA/PyMVPA) ↑ (http://www.pymvpa.org/) PyMVPA (/packages/pymvpa/index.html) Eases statistical learning analyses of large neuroimaging datasets.

Human Electrophysiology

↑ (https://github.com/mne-tools/mne-python) ↑ (http://martinos.org/mne/stable/index.html) MNE (/packages/mne/index.html) - Processes magnetoencephalography (MEG) and electroencephalography (EEG) data.

Data Visualisation

- ↑ (https://github.com/nipy/napari-nibabel) ↑ (https://github.com/nipy/napari-nibabel/blob/main/README.md) napari-nibabel (/packages/napari-nibabel/index.html) A plugin for the napari image viewer to view and annotate neuroimaging data
- ↑ (https://github.com/nipy/niwidgets) ↑ (http://www.nipy.org/niwidgets/) niwidgets (/packages/niwidgets/index.html) Provides interactive plots for volumetric images.





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