Resource Summary Report

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Nipype

RRID:SCR_002502
Type: Tool

Proper Citation

Nipype (RRID:SCR_002502)

Resource Information

URL: http://nipy.org/nipype/

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Description: A package for writing fMRI analysis pipelines and interfacing with external analysis packages (SPM, FSL, AFNI). Current neuroimaging software offer users an incredible opportunity to analyze their data in different ways, with different underlying assumptions. However, this has resulted in a heterogeneous collection of specialized applications without transparent interoperability or a uniform operating interface. Nipype, an open-source, community-developed initiative under the umbrella of Nipy, is a Python project that solves these issues by providing a uniform interface to existing neuroimaging software and by facilitating interaction between these packages within a single workflow. Nipype provides an environment that encourages interactive exploration of algorithms from different packages (e.g., SPM, FSL), eases the design of workflows within and between packages, and reduces the learning curve necessary to use different packages. Nipype is creating a collaborative platform for neuroimaging software development in a high-level language and addressing limitations of existing pipeline systems.

Abbreviations: Nipype

Synonyms: Nipype: Neuroimaging in Python Pipeline and Interfaces, NIPY Pipeline and Interfaces

Resource Type: software application, software resource

Defining Citation: PMID:21897815

Keywords: magnetic resonance, python, workflow, analysis, pipeline, interface, data processing, neuroimaging

Funding:

Availability: BSD License

Resource Name: Nipype

Resource ID: SCR_002502

Alternate IDs: nlx_155901

Alternate URLs: http://www.nitrc.org/projects/nipype

Record Creation Time: 20220129T080213+0000

Record Last Update: 20250508T064753+0000

Ratings and Alerts

No rating or validation information has been found for Nipype.

No alerts have been found for Nipype.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 607 mentions in open access literature.

Listed below are recent publications. The full list is available at NIF.

Isherwood S, et al. (2025) Multi-study fMRI outlooks on subcortical BOLD responses in the stop-signal paradigm. eLife, 12.

Tashjian SM, et al. (2025) Subregions in the ventromedial prefrontal cortex integrate threat and protective information to meta-represent safety. PLoS biology, 23(1), e3002986.

Mitchell JL, et al. (2025) Small or absent Visual Word Form Area is a trait of dyslexia. bioRxiv : the preprint server for biology.

Chang K, et al. (2025) Improving the reliability and accuracy of population receptive field measures using a logarithmically warped stimulus. Journal of vision, 25(1), 5.

Pauligk S, et al. (2025) Overcontrol in anorexia nervosa: Elevated prefrontal activity and amygdala connectivity in a working memory task with food distractors. International journal of clinical and health psychology : IJCHP, 25(1), 100544.

Widegren E, et al. (2025) Fear extinction retention in children, adolescents, and adults. Developmental cognitive neuroscience, 71, 101509.

Chen Q, et al. (2025) Dynamic switching between brain networks predicts creative ability. Communications biology, 8(1), 54.

Thovinakere N, et al. (2025) Social Determinants of Health and Functional Brain Connectivity Predict Long-Term Physical Activity in Older Adults with a New Cardiovascular Diagnosis. medRxiv : the preprint server for health sciences.

Shevchenko V, et al. (2025) A comparative machine learning study of schizophrenia biomarkers derived from functional connectivity. Scientific reports, 15(1), 2849.

Djimbouon F, et al. (2025) Shorter and inflexible intrinsic neural timescales of the self in schizophrenia. Journal of psychiatry & neuroscience : JPN, 50(1), E57.

Liao J, et al. (2024) Dissociable contributions of the hippocampus and orbitofrontal cortex to representing task space in a social context. Cerebral cortex (New York, N.Y. : 1991), 34(1).

Yang G, et al. (2024) Dorsolateral prefrontal activity supports a cognitive space organization of cognitive control. eLife, 12.

Rasgado-Toledo J, et al. (2024) Cortical and subcortical microstructure integrity changes after repetitive transcranial magnetic stimulation therapy in cocaine use disorder and relates to clinical outcomes. Addiction biology, 29(2), e13381.

van Brussel LD, et al. (2024) Brain activity of professional investors signals future stock performance. Proceedings of the National Academy of Sciences of the United States of America, 121(16), e2307982121.

Demidenko MI, et al. (2024) A multi-sample evaluation of the measurement structure and function of the modified monetary incentive delay task in adolescents. Developmental cognitive neuroscience, 65, 101337.

Yang G, et al. (2024) Cost-benefit Tradeoff Mediates the Rule- to Memory-based Transition during Practice. bioRxiv : the preprint server for biology.

Heukamp NJ, et al. (2024) Adolescents' pain-related ontogeny shares a neural basis with adults' chronic pain in basothalamo-cortical organization. iScience, 27(2), 108954.

Halchenko YO, et al. (2024) HeuDiConv - flexible DICOM conversion into structured directory layouts. Journal of open source software, 9(99).

Ness HT, et al. (2024) Recalled through this day but forgotten next week?-retrieval activity predicts durability of partly consolidated memories. Cerebral cortex (New York, N.Y. : 1991), 34(6).

Pietracupa S, et al. (2024) Understanding the role of cerebellum in early Parkinson's disease: a structural and functional MRI study. NPJ Parkinson's disease, 10(1), 119.