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

Availability: Free, Available for download, Freely available

Resource Name: Nipype

Resource ID: SCR_002502

Alternate IDs: nlx_155901

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

License: Apache License 2.0

Record Creation Time: 20220129T080213+0000

Record Last Update: 20260829T183048+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 942 mentions in open access literature.

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

Hiraoka D, et al. (2026) Investigating the role of executive function in brain responses to infant crying among new parents. Social cognitive and affective neuroscience, 21(1).

Rezaei A, et al. (2026) The retrieval of previously learned motor memories is facilitated by the reinstatement of default mode network manifold structures. PLoS biology, 24(3), e3003684.

Ferreira SM, et al. (2026) Age-specific relationship between the modulation of brain dynamics in response to task demands and bimanual performance. Aging, 18(1), 159.

Zoh Y, et al. (2026) Decomposing the neurocomputational mechanisms of deontological moral preferences. PNAS nexus, 5(4), pgag074.

Batsikadze G, et al. (2026) Cerebellar Transcranial Alternating Current Stimulation in the Theta Band Prevents Recall of the Initial Fear Association After Extinction Training. Human brain mapping, 47(8), e70556.

Hüppi RM, et al. (2026) Predicting Continuous Cognitive Decline: The Generalizability of a Multimodal Machine Learning Approach Including Structural MRI and Non-Brain Data. medRxiv : the preprint server for health sciences.

David I, et al. (2026) Distance- and hierarchy-dependent functional dysconnectivity in schizophrenia and its association with cortical microstructure. NeuroImage. Clinical, 49,

103958.

Mattoni M, et al. (2026) Precision Imaging for Intraindividual Investigation of the Reward Response. Human brain mapping, 47(5), e70512.

Centanino V, et al. (2026) Neuronal populations across the cortex underlie discrete, categorical, and subjective representations of visual durations. PLoS biology, 24(3), e3003704.

Dalloul N, et al. (2026) Negative symptoms and resting state functional connectivity: Leveraging ecological momentary assessment and individual-specific techniques. Schizophrenia research, 292, 28.

Vijayarajah S, et al. (2026) Developmental differences in hippocampal long-axis contributions to memory precision. Developmental cognitive neuroscience, 77, 101654.

Liu W, et al. (2026) Functional and structural connectivity of thalamic subnuclei in major depressive disorder at 7 Tesla. Psychiatry and clinical neurosciences, 80(6), 477.

Down KJA, et al. (2026) Synergistic and redundant information dynamics are modulated by Alzheimer's disease and cognitive impairment. bioRxiv : the preprint server for biology.

Huang J, et al. (2026) Binding items to contexts through conjunctive neural representations with the method of loci. Nature communications, 17(1).

Epp SM, et al. (2026) BOLD signal changes can oppose oxygen metabolism across the human cortex. Nature neuroscience, 29(5), 1225.

Ren Z, et al. (2026) MV-ComBat and MV-CovBat: Multivariate Frameworks for Joint Harmonization of Multi-Metric Neuroimaging Data. bioRxiv : the preprint server for biology.

Camacho PB, et al. (2026) Study protocol for the Champaign-Urbana population study. Frontiers in neuroimaging, 5, 1728970.

Olson HA, et al. (2026) The emergence of the language system in the toddler brain. bioRxiv : the preprint server for biology.

Hendrickson TJ, et al. (2026) BIBSNet: A deep learning baby image brain segmentation network for MRI scans. Developmental cognitive neuroscience, 79, 101706.

Siffredi V, et al. (2026) Mapping corpus callosum architecture: developmental, genetic, and cognitive correlates in youth. bioRxiv : the preprint server for biology.