Resource Summary Report

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DPARSF

RRID:SCR_002372
Type: Tool

Proper Citation

DPARSF (RRID:SCR_002372)

Resource Information

URL: http://rfmri.org/DPARSF

Proper Citation: DPARSF (RRID:SCR_002372)

Description: A MATLAB toolbox forpipeline data analysis of resting-state fMRI that is based on Statistical Parametric Mapping (SPM) and a plug-in software within DPABI. After the user arranges the Digital Imaging and Communications in Medicine (DICOM) files and click a few buttons to set parameters, DPARSF will then give all the preprocessed (slice timing, realign, normalize, smooth) data and results for functional connectivity, regional homogeneity, amplitude of low-frequency fluctuation (ALFF), fractional ALFF, degree centrality, voxel-mirrored homotopic connectivity (VMHC) results. DPARSF can also create a report for excluding subjects with excessive head motion and generate a set of pictures for easily checking the effect of normalization. In addition, users can also use DPARSF to extract time courses from regions of interest. DPARSF basic edition is very easy to use while DPARSF advanced edition (alias: DPARSFA) is much more flexible and powerful. DPARSFA can parallel the computation for each subject, and can be used to reorient images interactively or define regions of interest interactively. Users can skip or combine the processing steps in DPARSF advanced edition freely.

Abbreviations: DPARSF

Synonyms: Data Processing Assistant for Resting-State fMRI

Resource Type: software toolkit, data processing software, software application, software resource

Defining Citation: PMID:20577591

Keywords: magnetic resonance, fmri, resting-state fmri, matlab, analysis, brain

Funding:

Availability: GNU General Public License

Resource Name: DPARSF

Resource ID: SCR_002372

Alternate IDs: nlx_155735

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

Record Creation Time: 20220129T080213+0000

Record Last Update: 20250509T055532+0000

Ratings and Alerts

No rating or validation information has been found for DPARSF.

No alerts have been found for DPARSF.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 512 mentions in open access literature.

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

He Y, et al. (2025) Diverse Frontoparietal Connectivity Supports Semantic Prediction and Integration in Sentence Comprehension. The Journal of neuroscience : the official journal of the Society for Neuroscience, 45(5).

Yin X, et al. (2025) Abnormal neurovascular coupling exists in patients with peritoneal dialysis and hemodialysis: evidence from a multi-mode MRI study. Clinical kidney journal, 18(1), sfae353.

Sun YY, et al. (2025) The Efficacy and Brain Network Mechanism of Acupuncture for Knee Osteoarthritis: A Study Protocol for Randomized Controlled Neuroimaging Trial. Journal of pain research, 18, 391.

Liang X, et al. (2025) Differentiation between multiple sclerosis and neuromyelitis optic spectrum disorders with multilevel fMRI features: A machine learning analysis. Scientific reports, 15(1), 1909.

Jiang X, et al. (2025) Alterations in local activity and whole-brain functional connectivity in human immunodeficiency virus-associated neurocognitive disorders: a resting-state functional magnetic resonance imaging study. Quantitative imaging in medicine and surgery, 15(1), 563.

Trojsi F, et al. (2025) Brain neurovascular coupling in amyotrophic lateral sclerosis: Correlations with disease progression and cognitive impairment. European journal of neurology, 32(1), e16540.

Gao W, et al. (2024) Altered default-mode and frontal-parietal network pattern underlie adaptiveness of emotion regulation flexibility following task-switch training. Social cognitive and affective neuroscience, 19(1).

Han X, et al. (2024) A hypergraph transformer method for brain disease diagnosis. Frontiers in medicine, 11, 1496573.

Wang W, et al. (2024) Altered functional connectivity of brainstem nuclei in new daily persistent headache: Evidence from resting-state functional magnetic resonance imaging. CNS neuroscience & therapeutics, 30(3), e14686.

Huang J, et al. (2024) Unraveling the link: white matter damage, gray matter atrophy and memory impairment in patients with subcortical ischemic vascular disease. Frontiers in neuroscience, 18, 1355207.

Tang C, et al. (2024) Distinct serum GDNF coupling with brain structural and functional changes underlies cognitive status in Parkinson's disease. CNS neuroscience & therapeutics, 30(3), e14461.

Huang L, et al. (2024) Temporo-frontoparietal hypoconnectivity as a biomarker for isolated language impairment in mild cognitive impairment: A cross-cohort comparison. Alzheimer's & dementia : the journal of the Alzheimer's Association, 20(9), 6566.

Wang Z, et al. (2024) Functional alterations of the brain default mode network and somatosensory system in trigeminal neuralgia. Scientific reports, 14(1), 10205.

Guo Y, et al. (2024) A study on the association between prefrontal functional connectivity and non-suicidal self-injury in adolescents with depression. Frontiers in neurology, 15, 1382136.

Piramide N, et al. (2024) Altered domain-specific striatal functional connectivity in patients with Parkinson's disease and urinary symptoms. Journal of neural transmission (Vienna, Austria : 1996), 131(8), 917.

Qiu Y, et al. (2024) Neural substrates of affective temperaments: An intersubject

representational similarity analysis to resting-state functional magnetic resonance imaging in nonclinical subjects. Human brain mapping, 45(7), e26696.

Wang Y, et al. (2024) Contribution of resting-state functional connectivity of the subgenual anterior cingulate to prediction of antidepressant efficacy in patients with major depressive disorder. Translational psychiatry, 14(1), 399.

Mizzi S, et al. (2024) Resting-state amygdala subregion and precuneus connectivity provide evidence for a dimensional approach to studying social anxiety disorder. Translational psychiatry, 14(1), 147.

Chen J, et al. (2024) End-stage renal disease accompanied by mild cognitive impairment: A study and analysis of trimodal brain network fusion. PloS one, 19(6), e0305079.

Lin K, et al. (2024) Attentional impairment and altered brain activity in healthcare workers after mild COVID-19. Brain imaging and behavior, 18(3), 566.