Resource Summary Report

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REST: a toolkit for resting-state fMRI

RRID:SCR_009641

Type: Tool

Proper Citation

REST: a toolkit for resting-state fMRI (RRID:SCR_009641)

Resource Information

URL: http://www.restfmri.net

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Description: A user-friendly convenient toolkit to calculate Functional Connectivity (FC), Regional Homogeneity (ReHo), Amplitude of Low-Frequency Fluctuation (ALFF), Fractional ALFF (fALFF), Gragner causality and perform statistical analysis. You also can use REST to view your data, perform Monte Carlo simulation similar to AlphaSim in AFNI, calculate your images, regress out covariates, extract Region of Interest (ROI) time courses, reslice images, and sort DICOM files.

Abbreviations: REST

Synonyms: Resting-State fMRI Data Analysis Toolkit, REsting State fMRI Data analysis Toolkit

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

Defining Citation: PMID:21949842

Keywords: correlation, cross-correlation, fourier time-domain analysis, gnome, kde, linux, macos, matlab, microsoft, modeling, magnetic resonance, nifti, posix/unix-like, spatial transformation, spectral analysis, statistical operation, temporal transformation, time domain analysis, two dimensional display, visualization, windows, resting-state functional magnetic resonance imaging, resting-state fmri

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Availability: Academic Free License

Resource Name: REST: a toolkit for resting-state fMRI

Resource ID: SCR_009641

Alternate IDs: nlx_155936

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

Record Creation Time: 20220129T080254+0000

Record Last Update: 20250509T055922+0000

Ratings and Alerts

No rating or validation information has been found for REST: a toolkit for resting-state fMRI.

No alerts have been found for REST: a toolkit for resting-state fMRI.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 838 mentions in open access literature.

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

Li X, et al. (2025) Medial orbitofrontal cortex structure, function, and cognition associates with weight loss for laparoscopic sleeve gastrectomy. Obesity (Silver Spring, Md.), 33(2), 308.

Li W, et al. (2025) Altered hippocampal effective connectivity predicts BMI and food approach behavior in children with obesity. International journal of clinical and health psychology: IJCHP, 25(1), 100541.

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.

Shan AD, et al. (2025) Altered effective connectivity in Parkinson's disease patients with rapid eye movement sleep behavior disorder: a resting-state functional magnetic resonance imaging study and support vector machine analysis. Quantitative imaging in medicine and surgery, 15(1), 352.

Tu PC, et al. (2025) Thalamocortical functional connectivity and rapid antidepressant and antisuicidal effects of low-dose ketamine infusion among patients with treatment-resistant depression. Molecular psychiatry, 30(1), 61.

Liu H, et al. (2025) Alterations in cerebral perfusion and corresponding brain functional networks in systemic lupus erythematosus with cognitive impairment. Scientific reports, 15(1), 1310.

Lin X, et al. (2024) The Resting-State Activities of the Angular Gyrus and the Micturition Desire-Awakening Function in Children With and Without Enuresis. Brain and behavior, 14(12), e70177.

Chen R, et al. (2024) Frequency-specific static and dynamic neural activity indices in children with different attention deficit hyperactivity disorder subtypes: a resting-state fMRI study. Frontiers in human neuroscience, 18, 1412572.

Yang T, et al. (2024) The increased effective connectivity from left middle occipital gyrus to right medial septum/diagonal bands in AD patients after donepezil intervention. Frontiers in aging neuroscience, 16, 1362790.

Ester-Nacke T, et al. (2024) Network-targeted transcranial direct current stimulation of the hypothalamus appetite-control network: a feasibility study. Scientific reports, 14(1), 11341.

Fang J, et al. (2024) Polygenic effects on brain functional endophenotype for deficit and non-deficit schizophrenia. Schizophrenia (Heidelberg, Germany), 10(1), 18.

Ma J, et al. (2024) The moderating role of information processing speed in the relationship between brain remodeling and episodic memory in amnestic mild cognitive impairment. Alzheimer's & dementia: the journal of the Alzheimer's Association, 20(10), 6793.

Wu Y, et al. (2024) Brain functional specialization and cooperation in Alzheimer's disease. Brain and behavior, 14(6), e3550.

You L, et al. (2024) Abnormal insula network characteristics in panic disorder. Revista brasileira de psiquiatria (Sao Paulo, Brazil : 1999), 46, e20233520.

Cybinski LM, et al. (2024) Intermittent theta burst stimulation over the left prefrontal cortex: no additional effect for virtual reality exposure therapy in acrophobia-a randomized trial.

Scientific reports, 14(1), 29450.

Li L, et al. (2024) Effects of parietal iTBS on resting-state effective connectivity within the frontoparietal network in patients with schizophrenia: An fMRI study. NeuroImage. Clinical, 45, 103715.

Shen B, et al. (2024) The abnormally increased functional connectivity of the locus coeruleus in migraine without aura patients. BMC research notes, 17(1), 330.

Zou T, et al. (2024) Structural-functional connectivity decoupling in multiscale brain networks in Parkinson's disease. BMC neuroscience, 25(1), 78.

Dai M, et al. (2024) Predicting the efficacy of donepezil intervention in Alzheimer's disease patients using regional homogeneity in the inferior orbitofrontal cortex. Aging clinical and experimental research, 36(1), 94.

Yuan X, et al. (2024) Microstructural alterations in white matter and related neurobiology based on the new clinical subtypes of Parkinson's disease. Frontiers in neuroscience, 18, 1439443.