

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), Granger 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: data processing software, image analysis software, image processing software, software application, software resource, software toolkit

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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National Natural Science Foundation of China ;
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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: 20260905T132635+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 1004 mentions in open access literature.

Listed below are recent publications. The full list is available at [PRECISE-TBI](#) .

Mai Z, et al. (2026) Altered Topological Properties of White-Matter Functional Networks in Young Smokers. *Addiction biology*, 31(2), e70125.

Kim D, et al. (2026) Effects of the herbal prescription Kami Guibi-tang on brain function in amnesic mild cognitive impairment: a task-based and resting-state fMRI study. *Brain imaging and behavior*, 20(2).

Ao M, et al. (2026) Resting-state functional magnetic resonance imaging study on the effects of visual status on walking-related brain functions in healthy young adults. *Chinese medical journal*, 139(6), 920.

Chang WC, et al. (2026) Distinct and common subcortical functional connectivity revealed across three major psychiatric disorders. *Psychological medicine*, 56, e109.

Ding Y, et al. (2026) Functional magnetic resonance imaging study on short-term memory changes in children after congenital heart surgery. *Journal of cardiothoracic surgery*, 21(1).

Zhu Z, et al. (2026) Multimodal neuroimaging reveals brain neurochemical disturbances associated with superoxide dismutase in first-episode drug-naïve schizophrenia. *Translational psychiatry*, 16(1), 19.

You Y, et al. (2026) Abnormal intrinsic brain functional network dynamics in patients with postherpetic neuralgia. *Frontiers in neurology*, 17, 1683796.

Guo Y, et al. (2026) Identifying Abnormalities in Regional Brain Activity and Functional Connectivity in Patients With Detrusor Overactivity After Spinal Cord Injury. *International neurourology journal*, 30(1), 63.

Zhang X, et al. (2026) Associations between metabolic syndrome and regional brain iron depositions and cognitive function in middle-aged and older adults: A two multinational cohort study. *Alzheimer's & dementia : the journal of the Alzheimer's Association*, 22(1), e71080.

Tian L, et al. (2026) Neuroregulatory mechanism of heat-sensitive moxibustion on the Dubi acupoint (ST 35) in patients with knee osteoarthritis: a resting-state functional magnetic resonance imaging study. *Frontiers in neurology*, 17, 1699988.

Zhang B, et al. (2026) Altered Salience-Default Mode Network Dynamics in Subclinical Depression: A Preclustering-Based Co-Activation Pattern Analysis. *CNS neuroscience & therapeutics*, 32(2), e70736.

Zhou XC, et al. (2026) Remodeling of the ventral attention network-default mode network as potential neural correlates of anxiety in lumbar disc herniation patients treated with lever positioning manipulation: a resting-state fMRI study. *BMC complementary medicine and therapies*, 26(1).

An J, et al. (2026) Multimodal MRI Assessment of neuroprotective effects of Ofatumumab on brain structure, function, and clinical correlates in Relapsing Multiple Sclerosis. *Frontiers in neurology*, 17, 1738469.

Bao W, et al. (2026) Insomnia severity impact dynamic connectivity and modulate connectivity-cognitive links in major depressive disorder. *Psychological medicine*, 56, e137.

Zeng Y, et al. (2026) Whole-Brain Static Functional Connectivity Disruptions Based on the Default Mode Network in Patients with Mild Cognitive Impairment. *Brain topography*, 39(3).

Guo M, et al. (2026) A radiomics approach for predicting gait freezing in Parkinson's disease based on resting-state functional magnetic resonance imaging indices: A cross-sectional study. *Neural regeneration research*, 21(4), 1621.

Song J, et al. (2026) Altered attention and visuospatial abnormalities in Parkinson's disease: links to attention networks and basal ganglia. *Frontiers in aging neuroscience*, 18, 1754795.

Mo Y, et al. (2026) A new paradigm for stratified cognitive assessment: fusing serum Raman spectroscopy and ensemble learning. *Alzheimer's research & therapy*, 18(1).

Hou J, et al. (2026) Spatial and temporal connectivity of brain resting-state fMRI during music-induced analgesia in fibromyalgia patients. *Frontiers in human neuroscience*, 20, 1622082.

Zhao N, et al. (2026) Alterations in gray matter microstructure and functional connectivity after acute stress. *European journal of psychotraumatology*, 17(1), 2627059.