

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, software resource, software application, image processing software, image analysis software, 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: 20260805T044226+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 866 mentions in open access literature.

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

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.

Bai Y, et al. (2025) Glans penis electric stimulation modulates cerebral activity and functional connectivity in lifelong premature ejaculation revealed by functional MRI. Scientific reports, 15(1), 23328.

Sun H, et al. (2025) Common and disease-specific patterns of functional connectivity and topology alterations across unipolar and bipolar disorder during depressive episodes: a transdiagnostic study. Translational psychiatry, 15(1), 58.

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.

Koutsouleris N, et al. (2025) Multimodal biological profiles of symptom-based subgroups in recent-onset psychosis. *Research square*.

Guo M, et al. (2025) How Does Virtual Reality Exposure Treatment Change the Brain Function of Acrophobia Patients? A Randomized Controlled Trial. *Depression and anxiety*, 2025, 7823251.

Shu Q, et al. (2025) Effect of electroacupuncture on anxiety in patients with obesity: a protocol for a randomised, blinded, sham-controlled trial. *BMJ open*, 15(7), e093916.

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.

Zhang H, et al. (2025) Multiparameter resting-state functional magnetic resonance imaging as an indicator of neuropsychological changes in Binswanger's disease with mild cognitive impairment. *Frontiers in aging neuroscience*, 17, 1522591.

Liang S, et al. (2025) Frequency-Dependent Changes in Wavelet-ALFF in Patients With Acute Basal Ganglia Ischemic Stroke: A Resting-State fMRI Study. *Neural plasticity*, 2025, 8003718.

Ye L, et al. (2025) A study of dynamic functional connectivity changes in flight trainees based on a triple network model. *Scientific reports*, 15(1), 7828.

Li L, et al. (2025) A study of brain function changes in patients with trigeminal neuralgia of different laterality based on rs-fMRI. *Journal of oral & facial pain and headache*, 39(1), 148.

Guo C, et al. (2025) Effects of a healthy diet based on seed-rich vegetables on the gut microbiota and intrinsic brain activity in perimenopausal women: A pilot study on cognitive improvement. *Scientific reports*, 15(1), 17444.

Tan Y, et al. (2025) The Effect of APOE $\epsilon\epsilon$ Allele on Dynamic Local Spontaneous Brain Activity and Functional Integration in Alzheimer's Disease. *Human brain mapping*, 46(10), e70269.

He Y, et al. (2025) Brain injury, endocrine disruption, and immune dysregulation in HIV-positive men who have sex with men with late HIV diagnosis. *Frontiers in immunology*, 16, 1436589.

Chen J, et al. (2025) Causal structural covariance network identifies progressive gray matter atrophy in adolescents with major depressive disorder. *Psychological medicine*, 55, e249.

Xiao JW, et al. (2025) Language dysfunction and related amyloid-?? in Alzheimer's disease mediated by brain functional connectivity changes. *NeuroImage. Clinical*, 48, 103893.

Han K, et al. (2025) Alterations in brain function in patients with post-stroke cognitive impairment: a resting-state functional magnetic resonance imaging study. *Frontiers in aging neuroscience*, 17, 1501082.