

Resource Summary Report

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GraphVar: A toolbox for comprehensive graph analyses of functional brain connectivity

RRID:SCR_014117

Type: Tool

Proper Citation

GraphVar: A toolbox for comprehensive graph analyses of functional brain connectivity (RRID:SCR_014117)

Resource Information

URL: <http://www.nitrc.org/projects/graphvar/>

Proper Citation: GraphVar: A toolbox for comprehensive graph analyses of functional brain connectivity (RRID:SCR_014117)

Description: A user-friendly graphical-user-interface (GUI)-based toolbox (MATLAB) for comprehensive graph-theoretical analyses of brain connectivity, including network construction and characterization, statistical analysis on network topological measures, and interactive exploration of results.

Synonyms: GraphVar

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

Defining Citation: [PMID:25725332](#)

Keywords: software toolbox, data analysis, brain connectivity, graph theoretical analysis, statistical analysis, network construction, network characterization

Availability: Available for download

Resource Name: GraphVar: A toolbox for comprehensive graph analyses of functional brain connectivity

Resource ID: SCR_014117

Alternate URLs: <http://www.rfmri.org/GraphVar>

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Ratings and Alerts

No rating or validation information has been found for GraphVar: A toolbox for comprehensive graph analyses of functional brain connectivity.

No alerts have been found for GraphVar: A toolbox for comprehensive graph analyses of functional brain connectivity.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 34 mentions in open access literature.

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

Ding X, et al. (2026) Neural Correlates of Extraversion and Trait Creativity: A Graph Theory-Based Whole-Brain Functional Network Modularity Analysis. Journal of Intelligence, 14(6).

He G, et al. (2025) A multi-representation deep-learning framework for accurate multicancer classification. Journal of translational medicine, 23(1), 1317.

Ishihara T, et al. (2025) Multimodal Imaging to Identify Brain Markers of Human Prosocial Behavior. eNeuro, 12(3).

Borne A, et al. (2024) Unveiling the cognitive network organization through cognitive performance. Scientific reports, 14(1), 11645.

Haiduk F, et al. (2024) Spectrotemporal cues and attention jointly modulate fMRI network topology for sentence and melody perception. Scientific reports, 14(1), 5501.

Achtzehn J, et al. (2024) Changes in Functional Connectivity Relate to Modulation of Cognitive Control by Subthalamic Stimulation. Human brain mapping, 45(17), e70095.

Hagan AT, et al. (2024) The pharmacodynamic modulation effect of oxytocin on resting state functional connectivity network topology. Frontiers in pharmacology, 15, 1460513.

Drenth N, et al. (2024) Distinct functional subnetworks of cognitive domains in older adults with minor cognitive deficits. Brain communications, 6(1), fcae048.

Nestor LJ, et al. (2024) Reduced brain connectivity underlying value-based choices and outcomes in stimulant use disorder. NeuroImage. Clinical, 44, 103676.

Smith G, et al. (2023) Altering the Trajectory of Perfusion-Diffusion Deficits Using A BDNF Mimetic Acutely After TBI is Associated with Improved Functional Connectivity. *Progress in neurobiology* (Dover, Del.), 10(1).

Mansoor MS, et al. (2022) Local efficiency analysis of resting-state functional brain network in methamphetamine users. *Behavioural brain research*, 434, 114022.

Yang T, et al. (2022) Pretreatment topological disruptions of whole-brain networks exist in childhood absence epilepsy: A resting-state EEG-fMRI study. *Epilepsy research*, 182, 106909.

Zhu J, et al. (2021) Altered topological properties of brain functional networks in drug-resistant epilepsy patients with vagus nerve stimulators. *Seizure*, 92, 149.

Sierk A, et al. (2021) The dissociative subtype of posttraumatic stress disorder is associated with subcortical white matter network alterations. *Brain imaging and behavior*, 15(2), 643.

Banjac S, et al. (2021) Reconfiguration dynamics of a language-and-memory network in healthy participants and patients with temporal lobe epilepsy. *NeuroImage. Clinical*, 31, 102702.

Ishihara T, et al. (2021) Childhood exercise predicts response inhibition in later life via changes in brain connectivity and structure. *NeuroImage*, 237, 118196.

Zhang T, et al. (2021) Aberrant basal ganglia-thalamo-cortical network topology in juvenile absence epilepsy: A resting-state EEG-fMRI study. *Seizure*, 84, 78.

Martucci KT, et al. (2021) Spinal Cord Resting State Activity in Individuals With Fibromyalgia Who Take Opioids. *Frontiers in neurology*, 12, 694271.

Zhang Y, et al. (2020) Altered topological organization of functional brain networks in drug-naïve patients with paroxysmal kinesigenic dyskinesia. *Journal of the neurological sciences*, 411, 116702.

Walter H, et al. (2020) Self-control and interoception: Linking the neural substrates of craving regulation and the prediction of aversive interoceptive states induced by inspiratory breathing restriction. *NeuroImage*, 215, 116841.