

Resource Summary Report

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brainGraph

RRID:SCR_017260

Type: Tool

Proper Citation

brainGraph (RRID:SCR_017260)

Resource Information

URL: <https://github.com/cwatson/braingraph/>

Proper Citation: brainGraph (RRID:SCR_017260)

Description: Software R package for performing graph theory analyses of brain MRI data.

Synonyms: brainGraph - Graph Theory Analysis of Brain MRI Data in R, brainGraph

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

Keywords: graph, theory, analysis, brain, MRI, data

Availability: Free, Available for download, Freely available

Resource Name: brainGraph

Resource ID: SCR_017260

Alternate URLs: <https://www.nitrc.org/projects/braingraph/>,
<https://rdrr.io/cran/brainGraph/>, <https://www.r-pkg.org/pkg/brainGraph>

License: GPL

Record Creation Time: 20220129T080334+0000

Record Last Update: 20260821T194119+0000

Ratings and Alerts

No rating or validation information has been found for brainGraph.

No alerts have been found for brainGraph.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 16 mentions in open access literature.

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

Xiong H, et al. (2026) Recruitment patterns of hothubs and dark functional networks correlating activity and connectivity with magnetoencephalography. Scientific reports, 16(1), 4665.

Chen L, et al. (2026) Abnormal Brain Structural Covariance Networks of Cortical Thickness in Cocaine Use Disorder. Addiction biology, 31(7), e70176.

Marek MJ, et al. (2026) Structural network topology and cognitive control in very preterm born young adults. NeuroImage. Clinical, 49, 103952.

Mitchell ME, et al. (2025) Task-evoked functional connectivity exhibits novel and strengthened relationships with executive function relative to the resting state. bioRxiv : the preprint server for biology.

Ng MS, et al. (2025) Fungi promote cross-domain interactions even in deep anoxic mangrove sediments. Environmental microbiome, 20(1), 34.

Joo SW, et al. (2024) Topological abnormalities of the morphometric similarity network of the cerebral cortex in schizophrenia. Schizophrenia (Heidelberg, Germany), 10(1), 57.

Ruiz T, et al. (2024) Graph Analysis of the Visual Cortical Network during Naturalistic Movie Viewing Reveals Increased Integration and Decreased Segregation Following Mild TBI. Vision (Basel, Switzerland), 8(2).

Tang H, et al. (2023) A comprehensive survey of complex brain network representation. Meta-radiology, 1(3).

Tassan Mazzocco M, et al. (2023) Exploring the neuroprotective effects of montelukast on brain inflammation and metabolism in a rat model of quinolinic acid-induced striatal neurotoxicity. Journal of neuroinflammation, 20(1), 34.

Li W, et al. (2022) Difference in topological organization of white matter structural connectome between methamphetamine and heroin use disorder. Behavioural brain research, 422, 113752.

M??rner-Lavanchy I, et al. (2022) Altered resting-state networks in adolescent non-suicidal self-injury-a graph theory analysis. Social cognitive and affective neuroscience, 17(9), 819.

Lin F, et al. (2020) Brain hothubs and dark functional networks: correlation analysis between amplitude and connectivity for Broca's aphasia. PeerJ, 8, e10057.

Kim DJ, et al. (2020) Rich-club in the brain's macrostructure: Insights from graph theoretical analysis. Computational and structural biotechnology journal, 18, 1761.

Feldmann M, et al. (2020) Delayed maturation of the structural brain connectome in neonates with congenital heart disease. Brain communications, 2(2), fcaa209.

Kunst M, et al. (2019) A Cellular-Resolution Atlas of the Larval Zebrafish Brain. Neuron, 103(1), 21.

Mangangcha IR, et al. (2019) Identification of key regulators in prostate cancer from gene expression datasets of patients. Scientific reports, 9(1), 16420.