Resource Summary Report

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Graph Theory GLM (GTG) MATLAB Toolbox

RRID:SCR_014075
Type: Tool

Proper Citation

Graph Theory GLM (GTG) MATLAB Toolbox (RRID:SCR_014075)

Resource Information

URL: https://www.nitrc.org/projects/metalab_gtg/

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Description: A software application that calculates and runs a GLM on graph theory properties derived from brain networks. The GLM accepts continuous and categorical between-participant predictors and categorical within-participant predictors. Significance is determined via non-parametric permutation tests. Both fully connected and thresholded networks are tested. The toolbox also provides a data processing path for resting state and (block design) task fMRI data. Options for partialing nuisance signals include local and total white matter signal and PCA of white matter/ventricular signal. For task fMRI, connectivity matrices are computed for each condition by dividing up the timeseries. To compensate for HDR-related delay, the timeseries is deconvolved, allowing for division at the actual onset/offset times.

Abbreviations: GTG

Synonyms: Graph Theory GLM, GTG MATLAB Toolbox

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

Keywords: MATLAB, Connectivity Analysis, fMRI, data analysis software

Funding:

Resource Name: Graph Theory GLM (GTG) MATLAB Toolbox

Resource ID: SCR_014075

Alternate URLs: http://sites.bu.edu/metalab/tools/

License: GNU General Public License

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Ratings and Alerts

No rating or validation information has been found for Graph Theory GLM (GTG) MATLAB Toolbox.

No alerts have been found for Graph Theory GLM (GTG) MATLAB Toolbox.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 4 mentions in open access literature.

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

Yang Z, et al. (2021) Understanding complex functional wiring patterns in major depressive disorder through brain functional connectome. Translational psychiatry, 11(1), 526.

Sadeh N, et al. (2019) Linking genes, circuits, and behavior: network connectivity as a novel endophenotype of externalizing. Psychological medicine, 49(11), 1905.

Spielberg JM, et al. (2017) Higher serum cholesterol is associated with intensified age-related neural network decoupling and cognitive decline in early- to mid-life. Human brain mapping, 38(6), 3249.

Soares JM, et al. (2016) A Hitchhiker's Guide to Functional Magnetic Resonance Imaging. Frontiers in neuroscience, 10, 515.