Resource Summary Report

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GMAC: A Matlab toolbox for spectral Granger causality analysis of fMRI data

RRID:SCR_009581
Type: Tool

Proper Citation

GMAC: A Matlab toolbox for spectral Granger causality analysis of fMRI data (RRID:SCR_009581)

Resource Information

URL: https://www.nitrc.org/projects/gmac_2012/

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Description: Open-source software toolbox implemented multivariate spectral Granger Causality Analysis for studying brain connectivity using fMRI data. Available features are: fMRI data importing, network nodes definition, time series preprocessing, multivariate autoregressive modeling, spectral Granger causality indexes estimation, statistical significance assessment using surrogate data, network analysis and visualization of connectivity results. All functions are integrated into a graphical user interface developed in Matlab environment. Dependencies: Matlab, BIOSIG, SPM, MarsBar.

Abbreviations: GMAC

Synonyms: Granger Multivariate Autoregressive Connectivity

Resource Type: software resource, software toolkit

Defining Citation: PMID:22925560

Keywords: analyze, computational neuroscience, connectivity analysis, matlab, magnetic resonance, nifti, os independent, fmri, connectivity, granger causality, network analysis

Funding: NIH Blueprint for Neuroscience Research

Resource Name: GMAC: A Matlab toolbox for spectral Granger causality analysis of fMRI

data

Resource ID: SCR_009581

Alternate IDs: nlx_155764

Alternate URLs: http://www.nitrc.org/projects/gmac_2012

Old URLs: http://selene.bioing.polimi.it/BBBlab/GMAC/

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Ratings and Alerts

No rating or validation information has been found for GMAC: A Matlab toolbox for spectral Granger causality analysis of fMRI data.

No alerts have been found for GMAC: A Matlab toolbox for spectral Granger causality analysis of fMRI data.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 1 mentions in open access literature.

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

Maggioni E, et al. (2021) Effective Connectivity During Rest and Music Listening: An EEG Study on Parkinson's Disease. Frontiers in aging neuroscience, 13, 657221.