

Resource Summary Report

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Source Information Flow Toolbox

RRID:SCR_002561

Type: Tool

Proper Citation

Source Information Flow Toolbox (RRID:SCR_002561)

Resource Information

URL: <http://sccn.ucsd.edu/wiki/SIFT>

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Description: A GUI-enabled EEGLAB plugin for modeling and visualizing dynamical interactions between electrophysiological signals (EEG, ECoG, MEG, etc), preferably after transforming signals into the source domain. The toolbox consists of four modules: (1) Data Preprocessing, (2) Model Fitting and Connectivity Estimation, (3) Statistical Analysis, (4) Visualization, with a fifth Group Analysis module in development. Module 2 currently includes several adaptive multivariate autoregressive modeling (AMVAR) algorithms, including segmentation AMVAR and Kalman filtering. This subsequently allows the user to validate the model and estimate (in the time-frequency domain) a wide range of multivariate Granger-causal and coherence measures published to date. Module 3 includes routines for parametric and non-parametric significance testing. Module 4 contains routines for interactive visualization of dynamical interactions across time, frequency and anatomical source location.

Abbreviations: SIFT

Resource Type: data processing software, data visualization software, image analysis software, segmentation software, software application, software resource, software toolkit

Keywords: connectivity analysis, directed transfer analysis, eeg, meg, electrocorticography, granger causality, partial directed coherence

Availability: Free, Available for download, Freely available

Resource Name: Source Information Flow Toolbox

Resource ID: SCR_002561

Alternate IDs: nlx_155967

Alternate URLs: <http://www.nitrc.org/projects/sift>

License: GNU General Public License

Record Creation Time: 20220129T080214+0000

Record Last Update: 20260912T195542+0000

Ratings and Alerts

No rating or validation information has been found for Source Information Flow Toolbox.

No alerts have been found for Source Information Flow Toolbox.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 3 mentions in open access literature.

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

Chao ZC, et al. (2015) Cortical network architecture for context processing in primate brain. eLife, 4.

Kaminski M, et al. (2014) Directed Transfer Function is not influenced by volume conduction-inexpedient pre-processing should be avoided. Frontiers in computational neuroscience, 8, 61.

Delorme A, et al. (2011) EEGLAB, SIFT, NFT, BCILAB, and ERICA: new tools for advanced EEG processing. Computational intelligence and neuroscience, 2011, 130714.