EEGLAB

RRID:SCR_007292
Type: Tool

Proper Citation

EEGLAB (RRID:SCR_007292)

Resource Information

URL: http://sccn.ucsd.edu/eeglab/index.html

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Description: Interactive Matlab toolbox for processing continuous and event-related EEG, MEG and other electrophysiological data incorporating independent component analysis (ICA), time/frequency analysis, artifact rejection, event-related statistics, and several useful modes of visualization of the averaged and single-trial data. First developed on Matlab 5.3 under Linux, EEGLAB runs on Matlab v5 and higher under Linux, Unix, Windows, and Mac OS X (Matlab 7+ recommended). EEGLAB provides an interactive graphic user interface (GUI) allowing users to flexibly and interactively process their high-density EEG and other dynamic brain data using independent component analysis (ICA) and/or time/frequency analysis (TFA), as well as standard averaging methods. EEGLAB also incorporates extensive tutorial and help windows, plus a command history function that eases users' transition from GUI-based data exploration to building and running batch or custom data analysis scripts. EEGLAB offers a wealth of methods for visualizing and modeling event-related brain dynamics, both at the level of individual EEGLAB "datasets" and/or across a collection of datasets brought together in an EEGLAB "studyset." For experienced Matlab users, EEGLAB offers a structured programming environment for storing, accessing, measuring, manipulating and visualizing event-related EEG data. For creative research programmers and methods developers, EEGLAB offers an extensible, open-source platform through which they can share new methods with the world research community by publishing EEGLAB "plug-in" functions that appear automatically in the EEGLAB menu of users who download them. For example, novel EEGLAB plug-ins might be built and released to "pick peaks" in ERP or time/frequency results, or to perform specialized import/export, data visualization, or inverse source modeling of EEG, MEG, and/or ECOG data. EEGLAB Features * Graphic user interface * Multiformat data importing * High-density data scrolling * Defined EEG data structure * Open source plug-in facility * Interactive plotting functions * Semi-automated artifact removal * ICA & time/frequency transforms * Many advanced plug-in
toolboxes * Event & channel location handling * Forward/inverse head/source modeling

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

**References:** PMID:15102499

**Keywords:** visualization, eeg modeling, independent component analysis, meg modeling, eeg, erp, spectral decomposition, single-trial, matlab, meg, electrophysiology, format conversion, source separation analysis, fourier time-domain analysis, spectral analysis, temporal wavelet analysis, anova, event related potential, three dimensional display, two dimensional display

**Parent Organization:** Swartz Center for Computational Neuroscience

**Funding Agency:** NINDS

**Related resources:** Neural Maestro, Measure Projection Toolbox, NFT, Source Information Flow Toolbox, HeadIT, BCILAB, EEGVIS, EYE-EEG (combined eye-tracking & EEG), Libeep EEGLAB plugin, The Bergen fMRI Toolbox Plugin for EEGLab, BVA import/export EEGLAB plugin

**Availability:** GNU General Public License

**Website Status:** Last checked up

**Abbreviations:** EEGLAB

**Resource Name:** EEGLAB

**Resource ID:** SCR_007292

**Alternate IDs:** nif-0000-00076

**Alternate URLs:** http://www.nitrc.org/projects/eeglab/

**Old URLs:** http://www.nitrc.org/projects/incf_eeglab/

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**Ratings and Alerts**


No alerts have been found for EEGLAB.

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**Data and Source Information**

**Source:** SciCrunch Registry
Usage and Citation Metrics

We found 3544 mentions in open access literature.

**Listed below are recent publications.** The full list is available at FDI Lab - SciCrunch.org.


Sokoloff G, et al. (2021) Twitches emerge postnatally during quiet sleep in human infants and are synchronized with sleep spindles. Current biology : CB.


Yang X, et al. (2021) Abnormal Rat Cortical Development Induced by Ventricular Injection of rHMGB1 Mimics the Pathophysiology of Human Cortical Dysplasia. Frontiers in cell and developmental biology, 9, 634405.


