Resource Summary Report

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ERP PCA Toolkit

RRID:SCR_013105
Type: Tool

Proper Citation

ERP PCA Toolkit (RRID:SCR_013105)

Resource Information

URL: http://sourceforge.net/projects/erppcatoolkit/

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Description: This Matlab toolkit is a general purpose tool for editing, visualizing, and analyzing EEG data (both Event Related Potential - ERP and spectral) whose most recent version has been downloaded over 1000 times. Its three chief highlights are: 1) an optimized automatic artifact correction function that includes ICA correction for eye blinks and saccades. 2) Extensive support for easily conducting PCA and ICA through all stages of the procedure, including inspection of reconstituted waveforms and batch ANOVAs. 3) Implementation of robust ANOVAs, including McCarthy-Wood vector test. It has a graphical user interface for point and click usage and comes with an extensive illustrated tutorial. A description of the toolkit was published in Dien (2010) in Journal of Neuroscience Methods. It relies on both internal functions as well as borrowed functions from both EEGlab and FieldTrip.

Abbreviations: ERP PCA Toolkit

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

Keywords: eeg, meg, electrocorticography, matlab, visualization

Funding:

Availability: GNU General Public License v2

Resource Name: ERP PCA Toolkit

Resource ID: SCR_013105

Alternate IDs: nlx_155753

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

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Ratings and Alerts

No rating or validation information has been found for ERP PCA Toolkit.

No alerts have been found for ERP PCA Toolkit.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 5 mentions in open access literature.

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

Bridwell DA, et al. (2018) Moving Beyond ERP Components: A Selective Review of Approaches to Integrate EEG and Behavior. Frontiers in human neuroscience, 12, 106.

Senzai Y, et al. (2017) Physiological Properties and Behavioral Correlates of Hippocampal Granule Cells and Mossy Cells. Neuron, 93(3), 691.

Simon SS, et al. (2016) Increasing Working Memory Load Reduces Processing of Cross-Modal Task-Irrelevant Stimuli Even after Controlling for Task Difficulty and Executive Capacity. Frontiers in human neuroscience, 10, 380.

Shekhar K, et al. (2016) Comprehensive Classification of Retinal Bipolar Neurons by Single-Cell Transcriptomics. Cell, 166(5), 1308.

Steiner GZ, et al. (2016) Sequential Processing and the Matching-Stimulus Interval Effect in ERP Components: An Exploration of the Mechanism Using Multiple Regression. Frontiers in human neuroscience, 10, 339.