

Resource Summary Report

Generated by PRECISE-TBI on Sep 8, 2026

kCSD-Matlab

RRID:SCR_016424

Type: Tool

Proper Citation

kCSD-Matlab (RRID:SCR_016424)

Resource Information

URL: <https://github.molgen.mpg.de/MPIBR-coattia/MatlabMain/tree/master/behaviorAnalysis/code/NSKtoolbox/externalToolboxes/kCSDv1>

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Description: Software tool for analyzing recordings from multielectrodes. Source code for the Matlab implementation of the Kernel Current Source Density method. The method operates in one-, two-, and three-dimensional space to perform nonparametric estimation of transmembrane current sources from local field potentials recorded from arbitrarily distributed electrodes.

Abbreviations: kCSD

Synonyms: kernel Current Source Density

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

Keywords: analyzing, recording, data, multielectrode, transmembrane, current, source, estimate, kernel, source, density, method

Availability: Free, Available for download, Freely available

Resource Name: kCSD-Matlab

Resource ID: SCR_016424

License: GNU General Public License

Record Creation Time: 20220129T080330+0000

Record Last Update: 20260905T132808+0000

Ratings and Alerts

No rating or validation information has been found for kCSD-Matlab.

No alerts have been found for kCSD-Matlab.

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 [PRECISE-TBI](#) .

Vafaei A, et al. (2026) Laminar-specific control of response gain and orientation-tuning by parvalbumin-expressing inhibitory interneurons in primate visual cortex. Research square.

Romano V, et al. (2025) Stage-dependent cerebrocerebellar communication during sensorimotor processing. Nature communications, 16(1), 8812.

Bijanzadeh M, et al. (2018) Distinct Laminar Processing of Local and Global Context in Primate Primary Visual Cortex. Neuron, 100(1), 259.