Resource Summary Report

Generated by dkNET on May 19, 2025

Wave_clus

RRID:SCR_016101
Type: Tool

Proper Citation

Wave_clus (RRID:SCR_016101)

Resource Information

URL: https://github.com/csn-le/wave_clus

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Description: Algorithm for spike detection and sorting that uses wavelets and super-paramagnetic clustering. It generates an unsupervised solution, but this can be modified according to the experimenters' preference for semi-automatic sorting.

Synonyms: WaveClus, WaveClus spike-sorting algorithm

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

Keywords: spike, detection, wave, wavelet, magnetic, para-magnetic, solution, sorting, Automatic

Funding:

Availability: Free for non-commercial use, Available for download, Tutorial available

Resource Name: Wave_clus

Resource ID: SCR_016101

Record Creation Time: 20220129T080328+0000

Record Last Update: 20250517T060237+0000

Ratings and Alerts

No rating or validation information has been found for Wave_clus.

No alerts have been found for Wave_clus.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 64 mentions in open access literature.

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

Kuokkanen PT, et al. (2024) Single neuron contributions to the auditory brainstem EEG. bioRxiv : the preprint server for biology.

Bayman E, et al. (2024) Subthalamic nucleus synchronization between beta band local field potential and single-unit activity in Parkinson's disease. Physiological reports, 12(9), e16001.

Giansante G, et al. (2024) Neuronal network activity and connectivity are impaired in a conditional knockout mouse model with PCDH19 mosaic expression. Molecular psychiatry, 29(6), 1710.

Wischnewski M, et al. (2024) Induced neural phase precession through exogenous electric fields. Nature communications, 15(1), 1687.

Schonhaut DR, et al. (2024) MTL neurons phase-lock to human hippocampal theta. eLife, 13.

Wang C, et al. (2024) Protocol to measure monosynaptic connections between different cortical regions in mice using cell-pair cross correlogram of spike events. STAR protocols, 5(2), 103035.

Meng C, et al. (2024) Electrical excitability of neuronal networks based on the voltage threshold of electrical stimulation. Scientific reports, 14(1), 31573.

Ahtiainen A, et al. (2024) Astrocytes facilitate gabazine-evoked electrophysiological hyperactivity and distinct biochemical responses in mature neuronal cultures. Journal of neurochemistry, 168(9), 3076.

Wischnewski M, et al. (2023) Induced neural phase precession through exogeneous electric fields. bioRxiv : the preprint server for biology.

Quian Quiroga R, et al. (2023) Single neuron responses underlying face recognition in the human midfusiform face-selective cortex. Nature communications, 14(1), 5661.

Reber TP, et al. (2023) Single-neuron mechanisms of neural adaptation in the human temporal lobe. Nature communications, 14(1), 2496.

Sheybani L, et al. (2023) Wake slow waves in focal human epilepsy impact network activity and cognition. Nature communications, 14(1), 7397.

Wang C, et al. (2023) 40-Hz optogenetic stimulation rescues functional synaptic plasticity after stroke. Cell reports, 42(12), 113475.

Schreck MR, et al. (2022) State-dependent olfactory processing in freely behaving mice. Cell reports, 38(9), 110450.

Nadasdy Z, et al. (2022) Phase coding of spatial representations in the human entorhinal cortex. Science advances, 8(18), eabm6081.

Hayes J, et al. (2021) Phosphodiesterase type 1 inhibition alters medial prefrontal cortical activity during goal-driven behaviour and partially reverses neurophysiological deficits in the rat phencyclidine model of schizophrenia. Neuropharmacology, 186, 108454.

Grube P, et al. (2021) Transient Oxygen-Glucose Deprivation Causes Region- and Cell Type-Dependent Functional Deficits in the Mouse Hippocampus In Vitro. eNeuro, 8(5).

Park S, et al. (2021) Natural Statistics as Inference Principles of Auditory Tuning in Biological and Artificial Midbrain Networks. eNeuro, 8(3).

Kunz L, et al. (2021) A neural code for egocentric spatial maps in the human medial temporal lobe. Neuron, 109(17), 2781.

Toso A, et al. (2021) Time coding in rat dorsolateral striatum. Neuron, 109(22), 3663.