

Resource Summary Report

Generated by SPARC SAWG on Jul 29, 2026

Wave Surfer

RRID:SCR_021529

Type: Tool

Proper Citation

Wave Surfer (RRID:SCR_021529)

Resource Information

URL: <https://wavesurfer.janelia.org/>

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Description: Open source software application for neurophysiology data acquisition and analysis. Program is based in MatLab, and evolved from earlier open source software package called Ephus.

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

Keywords: neurophysiology data acquisition, neurophysiology data analysis, neurophysiology data, MATLAB, OpenBehavior

Availability: Free, Available for download, Freely Available

Resource Name: Wave Surfer

Resource ID: SCR_021529

Alternate URLs: <https://edspace.american.edu/openbehavior/project/wave-surfer/>

License: Howard Hughes Medical Institute

Record Creation Time: 20220129T080356+0000

Record Last Update: 20260729T044524+0000

Ratings and Alerts

No rating or validation information has been found for Wave Surfer.

No alerts have been found for Wave Surfer.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 46 mentions in open access literature.

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

Croke H, et al. (2026) Drosophila DNp03 descending neurons serve as a hub within a flight saccade network. *Current biology : CB*, 36(1), 133.

Kim DW, et al. (2025) Decoding Gene Networks Controlling Hypothalamic and Prethalamic Neuron Development. *bioRxiv : the preprint server for biology*.

Yu Z, et al. (2025) Activity-dependent synapse elimination requires caspase-3 activation. *eLife*, 13.

Kim DW, et al. (2025) Decoding gene networks controlling hypothalamic and prethalamic neuron development. *Cell reports*, 44(6), 115858.

Moya MV, et al. (2025) A scalable, all-optical method for mapping synaptic connectivity with cell-type specificity. *bioRxiv : the preprint server for biology*.

Dombrovski M, et al. (2025) Gradients of Cell Recognition Molecules Wire Visuomotor Transformation. *bioRxiv : the preprint server for biology*.

Piña Novo D, et al. (2025) Cortical dynamics in hand/forelimb S1 and M1 evoked by brief photostimulation of the mouse's hand. *eLife*, 14.

Tasaka GI, et al. (2025) Orbitofrontal cortex influences dopamine dynamics associated with alloparental behavioral acquisition in female mice. *Science advances*, 11(27), eadr4620.

Vaidya SP, et al. (2025) Formation of an expanding memory representation in the hippocampus. *Nature neuroscience*, 28(7), 1510.

Mohar B, et al. (2025) DELTA: a method for brain-wide measurement of synaptic protein turnover reveals localized plasticity during learning. *Nature neuroscience*, 28(5), 1089.

Tyssowski KM, et al. (2025) Evolutionary expansion of the corticospinal system is linked to dexterity in *Peromyscus* mice. *bioRxiv : the preprint server for biology*.

Kühn NK, et al. (2025) Dendritic architecture enables de novo computation of salient motion in the superior colliculus. *Current biology : CB*, 35(16), 3799.

Yaguchi K, et al. (2024) Flexible adjustment of oxytocin neuron activity in mouse dams revealed by microendoscopy. *Science advances*, 10(50), eadt1555.

Noorman M, et al. (2024) Maintaining and updating accurate internal representations of continuous variables with a handful of neurons. *Nature neuroscience*, 27(11), 2207.

Zhang L, et al. (2024) Trigeminal innervation and tactile responses in mouse tongue. *Cell reports*, 43(9), 114665.

Novo DP, et al. (2024) Cortical dynamics in hand/forelimb S1 and M1 evoked by brief photostimulation of the mouse's hand. *bioRxiv : the preprint server for biology*.

Moreno-Sanchez A, et al. (2024) Morphology and synapse topography optimize linear encoding of synapse numbers in *Drosophila* looming responsive descending neurons. *bioRxiv : the preprint server for biology*.

Brague JC, et al. (2024) Dopamine-mediated plasticity preserves excitatory connections to direct pathway striatal projection neurons and motor function in a mouse model of Parkinson's disease. *bioRxiv : the preprint server for biology*.

Smolin N, et al. (2024) Neuronal identity control at the resolution of a single transcription factor isoform. *bioRxiv : the preprint server for biology*.

Kim T, et al. (2024) Developmental changes in mouse motor skill learning and cortical circuitry. *bioRxiv : the preprint server for biology*.