

Resource Summary Report

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Salk Institute for Biological Studies: Jude Mitchells Neuron Exchange and Matlab Analysis

RRID:SCR_008055

Type: Tool

Proper Citation

Salk Institute for Biological Studies: Jude Mitchells Neuron Exchange and Matlab Analysis (RRID:SCR_008055)

Resource Information

URL: http://www.sn1.salk.edu/~jude/neuron_exchange/

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Description: This resource contains to MATLAB code to make and show videos that can be acquired for free. Data for the movies came from a Macaque attention task. Data on this page came from the multiple-object tracking attention task in a Macaque: The monkeys fixated the white dot at the center of the computer monitor, and four striped stimuli appeared. Their eye position was monitored using an IR camera. The red cross shows where the eyes were pointing throughout each trial. The circle shows the location of the receptive field of the neuron under study during the recording. At the beginning of each trial, either one or two of the stimuli were highlighted, indicating to the monkey that they were the targets of attention. The stimuli then moved to new locations and paused, with one stimulus in the receptive field. After a brief pause, they moved to new locations and the fixation point disappeared. The monkey was rewarded with juice if it then looked at the cued targets. Attention Dask Demo (Avi File) contains Matlab code to make and show movies. Publication from this Dataset: * Differential attention-dependent response modulation across cell classes in macaque visual area V4. JF Mitchell, KA Sundberg, JH Reynolds. Neuron, 2007, 55. 131-141. * Supplemental Material, Neuron, 2007, 55. 131-141. :A Subset of data can be downloaded with analysis routines (easiest to download whole set with full subdirectory structure). Additionally, neuron data files can also be downloaded. :* Routines for Fano Factor, Autocorrelation, and Power Spectra (poster above): :o Plots Spike Waveform and Tests if Significant Visual Response: basic_info.m :o Firing Rate and Fano Factor Analysis (Mitchell et. al, 2007): rate_fano_psth.m :* Routines for Spike-LFP Coherence: :o Spike-LFP Coherence with Rate Normalization (attempting Womelsdorf & Fries, Cosyne, 2008): rate_normalized_coherence.m Sponsors: This work was supported by a grant from the National Eye Institute (EY016161, J.F.M. and J.H.R.), a National Institutes of Health Training Fellowship (J.F.M.), and a National Science

Foundation Graduate Research Fellowship (K.A.S.).

Synonyms: Salk Insitute (J. Mitchel)

Resource Type: data or information resource, data processing software, software application, rendering software, data visualization software, database, software resource

Keywords: code, matlab, movies, video, eye tracking device

Resource Name: Salk Institute for Biological Studies: Jude Mitchells Neuron Exchange and Matlab Analysis

Resource ID: SCR_008055

Alternate IDs: nif-0000-10412

Record Creation Time: 20220129T080245+0000

Record Last Update: 20260814T042748+0000

Ratings and Alerts

No rating or validation information has been found for Salk Institute for Biological Studies: Jude Mitchells Neuron Exchange and Matlab Analysis.

No alerts have been found for Salk Institute for Biological Studies: Jude Mitchells Neuron Exchange and Matlab Analysis.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We have not found any literature mentions for this resource.