

Resource Summary Report

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GLMdenoise: a fast, automated technique for denoising task-based fMRI data

RRID:SCR_014116

Type: Tool

Proper Citation

GLMdenoise: a fast, automated technique for denoising task-based fMRI data (RRID:SCR_014116)

Resource Information

URL: <http://www.nitrc.org/projects/glmldenoise>

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Description: A MATLAB toolbox for denoising task-based fMRI data. It derives noise regressors from voxels unrelated to the experimental paradigm and uses these regressors in a general linear model (GLM) analysis of the data. The technique only requires a design matrix indicating the experimental design and an fMRI dataset.

Synonyms: GLMdenoise

Resource Type: software toolkit, software resource

Keywords: matlab toolbox, software toolkit, denoise, fmri

Funding: McDonnell Center for Systems Neuroscience and Arts and Sciences at Washington University ;
NEI F32-EY022294;
NEI K99-EY022116;
NEI RO1-EY03164

Availability: Acknowledgement Requested

Resource Name: GLMdenoise: a fast, automated technique for denoising task-based fMRI data

Resource ID: SCR_014116

Alternate URLs: <http://kendrickkay.net/GLMdenoise/>

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Ratings and Alerts

No rating or validation information has been found for GLMdenoise: a fast, automated technique for denoising task-based fMRI data.

No alerts have been found for GLMdenoise: a fast, automated technique for denoising task-based fMRI data.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 7 mentions in open access literature.

Listed below are recent publications. The full list is available at [kravitz2](#) .

Li M, et al. (2025) Individual differences in vicarious pain as a shift in the self-other boundary. *Imaging neuroscience* (Cambridge, Mass.), 3.

Cheng YA, et al. (2025) A neural geometry approach comprehensively explains apparently conflicting models of visual perceptual learning. *Nature human behaviour*, 9(5), 1023.

Gifford AT, et al. (2025) A 7T fMRI dataset of synthetic images for out-of-distribution modeling of vision. *ArXiv*.

Li M, et al. (2024) Can the neural representation of physical pain predict empathy for pain in others? *Social cognitive and affective neuroscience*, 19(1).

Kim SG, et al. (2024) Linguistic modulation of the neural encoding of phonemes. *Cerebral cortex* (New York, N.Y. : 1991), 34(4).

Ritchie JB, et al. (2021) The unreliable influence of multivariate noise normalization on the reliability of neural dissimilarity. *NeuroImage*, 245, 118686.

Agrawal A, et al. (2020) A compositional neural code in high-level visual cortex can explain jumbled word reading. *eLife*, 9.