

# Resource Summary Report

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## Gaussian-Copula Mutual Information (GCMI)

RRID:SCR\_016450

Type: Tool

### Proper Citation

Gaussian-Copula Mutual Information (GCMI) (RRID:SCR\_016450)

### Resource Information

**URL:** <https://github.com/robince/gcmi>

**Proper Citation:** Gaussian-Copula Mutual Information (GCMI) (RRID:SCR\_016450)

**Description:** Software package of functions for calculating mutual information and other information theoretic quantities using a parametric Gaussian copula.

**Abbreviations:** GCMI

**Synonyms:** gcmi : Gaussian-Copula Mutual Information, Gaussian-Copula Mutual Information

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

**Keywords:** gaussian, copula, parametric, equation, calculation, python, matlab, repository, statistic

**Funding:** European Research Council 646657;  
UK Biotechnology and Biological Sciences Research Council (BBSRC) BB/D01400X1;  
UK Biotechnology and Biological Sciences Research Council (BBSRC) BB/J018929/1;  
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UK Biotechnology and Biological Sciences Research Council (BBSRC) BB/M009742/1;  
Wellcome Trust 098433;  
Wellcome Trust 107802

**Availability:** Free, Available for download

**Resource Name:** Gaussian-Copula Mutual Information (GCMI)

**Resource ID:** SCR\_016450

**License:** GPL v3

**Record Creation Time:** 20220129T080330+0000

**Record Last Update:** 20260821T194054+0000

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## Ratings and Alerts

No rating or validation information has been found for Gaussian-Copula Mutual Information (GCMI).

No alerts have been found for Gaussian-Copula Mutual Information (GCMI).

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## Data and Source Information

**Source:** [SciCrunch Registry](#)

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## Usage and Citation Metrics

We found 11 mentions in open access literature.

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

Roberts L, et al. (2026) Broadband synergy versus oscillatory redundancy in the visual cortex. Nature communications, 17(1).

Corcoran AW, et al. (2025) When your heart isn't in it anymore: cardiac correlates of task disengagement. Communications biology, 8(1), 1646.

Greco A, et al. (2024) Predictive learning shapes the representational geometry of the human brain. Nature communications, 15(1), 9670.

Gelens F, et al. (2024) Distributed representations of prediction error signals across the cortical hierarchy are synergistic. Nature communications, 15(1), 3941.

Deng S, et al. (2022) Hemodynamic and metabolic correspondence of resting-state voxel-based physiological metrics in healthy adults. NeuroImage, 250, 118923.

Gross J, et al. (2021) Comparison of undirected frequency-domain connectivity measures for cerebro-peripheral analysis. NeuroImage, 245, 118660.

Colenbier N, et al. (2020) Disambiguating the role of blood flow and global signal with partial information decomposition. NeuroImage, 213, 116699.

Daube C, et al. (2019) Simple Acoustic Features Can Explain Phoneme-Based Predictions of Cortical Responses to Speech. Current biology : CB, 29(12), 1924.

Fran??a LGS, et al. (2018) Fractal and Multifractal Properties of Electrographic Recordings of Human Brain Activity: Toward Its Use as a Signal Feature for Machine Learning in Clinical Applications. Frontiers in physiology, 9, 1767.

Park H, et al. (2018) Representational interactions during audiovisual speech entrainment: Redundancy in left posterior superior temporal gyrus and synergy in left motor cortex. PLoS biology, 16(8), e2006558.

Ince RA, et al. (2017) A statistical framework for neuroimaging data analysis based on mutual information estimated via a gaussian copula. Human brain mapping, 38(3), 1541.