

# Resource Summary Report

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## Functional Network Connectivity (FNC)

RRID:SCR\_015731

Type: Tool

### Proper Citation

Functional Network Connectivity (FNC) (RRID:SCR\_015731)

### Resource Information

**URL:** <https://trendscenter.org/software/>

**Proper Citation:** Functional Network Connectivity (FNC) (RRID:SCR\_015731)

**Description:** Software toolbox which finds and displays temporal relations amongst components. This can help determine causal relations in the brain.

**Abbreviations:** FNC

**Synonyms:** FNC Toolbox, GIFT toolbox, Functional Network Connectivity Toolbox

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

**Defining Citation:** [PMID:18082428](#)

**Keywords:** fmri, temporal relation, causal relation, neural connectivity,

**Availability:** Free, Available for download, Tutorial available

**Resource Name:** Functional Network Connectivity (FNC)

**Resource ID:** SCR\_015731

**Old URLs:** <http://mialab.mrn.org/software/fnc/index.html>

**Record Creation Time:** 20220129T080327+0000

**Record Last Update:** 20260829T182519+0000

### Ratings and Alerts

No rating or validation information has been found for Functional Network Connectivity (FNC).

No alerts have been found for Functional Network Connectivity (FNC).

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## Data and Source Information

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

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## Usage and Citation Metrics

We found 26 mentions in open access literature.

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

Kuang LD, et al. (2026) CCPD under sparsity and low-rank constraints: multi-frequency dynamic functional network connectivity analysis in schizophrenia. *Frontiers in neuroscience*, 20, 1775687.

Sendi M, et al. (2025) Comprehensive mapping of cognitive and emotion networks in stress, anxiety, and depression implicates the precuneus as a critical hub. *Research square*.

Duda M, et al. (2025) Functionally Adaptive Structural Basis Sets of the Brain: A Dynamic Fusion Approach. *Human brain mapping*, 46(11), e70302.

Li Y, et al. (2025) Aberrant functional connectivity and the intrinsic activity of primary visual network and their relationship with adolescent atypical depression symptoms. *Frontiers in psychiatry*, 16, 1690871.

Bakiaj R, et al. (2025) Unmasking the Dark Triad: A Data Fusion Machine Learning Approach to Characterize the Neural Bases of Narcissistic, Machiavellian and Psychopathic Traits. *The European journal of neuroscience*, 61(2), e16674.

Edwards-Swart SJ, et al. (2025) Functional Brain Age Acceleration from Dynamic and Static Connectivity Predicts Working Memory and Attention Deficits in Schizophrenia. *medRxiv : the preprint server for health sciences*.

Sendi M, et al. (2025) Dynamic Brain Age Modeling Identifies Network-Specific Cognitive Deficits in Schizophrenia. *Research square*.

Sendi MSE, et al. (2025) Visualizing functional network connectivity differences using an explainable machine-learning method. *Physiological measurement*, 46(4).

Zhu Y, et al. (2024) Abnormal Functional Connectivity Intra- and Inter-Network in Resting-State Brain Networks of Patients with Toothache. *Journal of pain research*, 17, 2111.

Faghiri A, et al. (2024) Frequency modulation increases the specificity of time-resolved connectivity: A resting-state fMRI study. *Network neuroscience (Cambridge, Mass.)*, 8(3), 734.

Tu Y, et al. (2024) Relationship between brain white matter damage and grey matter atrophy in hereditary spastic paraplegia types 4 and 5. *European journal of neurology*, 31(8), e16310.

Wylie KP, et al. (2024) Hierarchical Principal Components for Data-Driven Multiresolution fMRI Analyses. *Brain sciences*, 14(4).

Sendi M, et al. (2024) Brain dynamics reflecting an intra-network brain state is associated with increased posttraumatic stress symptoms in the early aftermath of trauma. *Research square*.

Wang Z, et al. (2023) Differences in resting-state brain networks and gray matter between APOE  $\epsilon$ 2 and APOE  $\epsilon$ 4 carriers in non-dementia elderly. *Frontiers in psychiatry*, 14, 1197987.

Moser DA, et al. (2023) Within-network brain connectivity during a social optimism task is related to personal optimism and optimism for in-group members. *Human brain mapping*, 44(12), 4561.

Kreitz S, et al. (2023) 3T vs. 7T fMRI: capturing early human memory consolidation after motor task utilizing the observed higher functional specificity of 7T. *Frontiers in neuroscience*, 17, 1215400.

Zhang H, et al. (2022) Changes in the Intranetwork and Internetwork Connectivity of the Default Mode Network and Olfactory Network in Patients with COVID-19 and Olfactory Dysfunction. *Brain sciences*, 12(4).

Cui D, et al. (2022) Beneficial Effect of High-Frequency Repetitive Transcranial Magnetic Stimulation for the Verbal Memory and Default Mode Network in Healthy Older Adults. *Frontiers in aging neuroscience*, 14, 845912.

Bezmaternykh DD, et al. (2021) Brain Networks Connectivity in Mild to Moderate Depression: Resting State fMRI Study with Implications to Nonpharmacological Treatment. *Neural plasticity*, 2021, 8846097.

Kumar R, et al. (2021) Ground-truth "resting-state" signal provides data-driven estimation and correction for scanner distortion of fMRI time-series dynamics. *NeuroImage*, 227, 117584.