

Resource Summary Report

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USC Multimodal Connectivity Database

RRID:SCR_012809

Type: Tool

Proper Citation

USC Multimodal Connectivity Database (RRID:SCR_012809)

Resource Information

URL: <http://umcd.humanconnectomeproject.org>

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Description: Web-based repository and analysis site for connectivity matrices that have been derived from neuroimaging data including different imaging modalities, subject groups, and studies. Users can analyze connectivity matrices that have been shared publicly and upload their own matrices to share or analyze privately.

Abbreviations: UMCD

Synonyms: UCLA Connectivity Database, UCLA Multimodal Connectivity Database: Web-based brain network analysis and data sharing, UCLA Multimodal Connectivity Database

Resource Type: service resource, data repository, data or information resource, database, storage service resource

Defining Citation: [PMID:23226127](#), [PMID:20850551](#)

Keywords: fmri, dti, dsi, mri, eeg, meg, data set, image, computational hosting, connectivity, neuroimaging, data sharing, brain, rendering, diffusion-weighted mri, functional connectivity, graph theory, resting-state fmri, structural connectivity, image display, magnetic resonance, python, rendering, visualization, connectivity matrix, network, brain network, matrix, de-identified, male, female, apoe, child, adult

Related Condition: Normal, Lesioned, Attention deficit-hyperactivity disorder, Autism Spectrum Disorder, Obsessive-Compulsive Disorder, BDD, APOE 4/4, APOE 3/4, APOE 3/3, Alzheimer's disease

Funding: NRSA ;
NIH Blueprint for Neuroscience Research ;
NIA F31AG035438-01;

NIDA HHSN271200800035C

Availability: The community can contribute to this resource, Some features require an account

Resource Name: USC Multimodal Connectivity Database

Resource ID: SCR_012809

Alternate IDs: nlx_83091

Alternate URLs: <http://www.nitrc.org/projects/umcd>

Old URLs: <http://jessebrown.webfactional.com/welcome/default/index>

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Record Creation Time: 20220129T080312+0000

Record Last Update: 20260731T042851+0000

Ratings and Alerts

No rating or validation information has been found for USC Multimodal Connectivity Database.

No alerts have been found for USC Multimodal Connectivity Database.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 25 mentions in open access literature.

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

De Vico Fallani F, et al. (2025) Economical representation of spatial networks. PNAS nexus, 4(7), pgaf203.

Pathak A, et al. (2024) A hierarchy index for networks in the brain reveals a complex entangled organizational structure. Proceedings of the National Academy of Sciences of the United States of America, 121(27), e2314291121.

Yang Y, et al. (2023) Eigenmode-based approach reveals a decline in brain structure-function liberality across the human lifespan. Communications biology, 6(1), 1128.

Zanin M, et al. (2022) A Fast Transform for Brain Connectivity Difference Evaluation. Neuroinformatics, 20(2), 285.

Chatterjee T, et al. (2021) Detecting network anomalies using Forman-Ricci curvature and a case study for human brain networks. *Scientific reports*, 11(1), 8121.

Benigni B, et al. (2021) Persistence of information flow: A multiscale characterization of human brain. *Network neuroscience (Cambridge, Mass.)*, 5(3), 831.

Ivanoska I, et al. (2021) Statistical and Machine Learning Link Selection Methods for Brain Functional Networks: Review and Comparison. *Brain sciences*, 11(6).

Chen X, et al. (2021) The functional brain favours segregated modular connectivity at old age unless affected by neurodegeneration. *Communications biology*, 4(1), 973.

Rosen BQ, et al. (2021) A Whole-Cortex Probabilistic Diffusion Tractography Connectome. *eNeuro*, 8(1).

Takagi K, et al. (2021) Energy constraints on brain network formation. *Scientific reports*, 11(1), 11745.

Nuzzi D, et al. (2020) Synergistic information in a dynamical model implemented on the human structural connectome reveals spatially distinct associations with age. *Network neuroscience (Cambridge, Mass.)*, 4(3), 910.

Schirmer MD, et al. (2019) Network structural dependency in the human connectome across the life-span. *Network neuroscience (Cambridge, Mass.)*, 3(3), 792.

Takagi K, et al. (2019) Principles of Mutual Information Maximization and Energy Minimization Affect the Activation Patterns of Large Scale Networks in the Brain. *Frontiers in computational neuroscience*, 13, 86.

Zhang J, et al. (2019) Finding Community Modules of Brain Networks Based on PSO with Uniform Design. *BioMed research international*, 2019, 4979582.

van den Heuvel MP, et al. (2019) Evolutionary modifications in human brain connectivity associated with schizophrenia. *Brain : a journal of neurology*, 142(12), 3991.

Tang L, et al. (2019) A network clustering based feature selection strategy for classifying autism spectrum disorder. *BMC medical genomics*, 12(Suppl 7), 153.

Farooq H, et al. (2019) Network curvature as a hallmark of brain structural connectivity. *Nature communications*, 10(1), 4937.

Takagi K, et al. (2018) Information-Based Principle Induces Small-World Topology and Self-Organized Criticality in a Large Scale Brain Network. *Frontiers in computational neuroscience*, 12, 65.

van Dellen E, et al. (2018) Minimum spanning tree analysis of the human connectome. *Human brain mapping*, 39(6), 2455.

van den Heuvel MP, et al. (2017) Proportional thresholding in resting-state fMRI functional connectivity networks and consequences for patient-control connectome studies: Issues and recommendations. *NeuroImage*, 152, 437.