Resource Summary Report

Generated by nidm-terms on Jul 28, 2026

PANDA

RRID:SCR_002511
Type: Tool

Proper Citation

PANDA (RRID:SCR_002511)

Resource Information

URL: http://code.google.com/p/panda-tool/

Proper Citation: PANDA (RRID:SCR_002511)

Description: Software matlab toolbox for pipeline processing of diffusion MRI images. For each subject, PANDA can provide outputs in 2 types: i) diffusion parameter data that is ready for statistical analysis; ii) brain anatomical networks constructed by using diffusion tractography. Particularly, there are 3 types of resultant diffusion parameter data: WM atlas-level, voxel-level and TBSS-level. The brain network generated by PANDA has various edge definitions, e.g. fiber number, length, or FA-weighted. The key advantages of PANDA are as follows: # fully-automatic processing from raw DICOM/NIFTI to final outputs; # Supporting both sequential and parallel computation. The parallel environment can be a single desktop with multiple-cores or a computing cluster with a SGE system; # A very friendly GUI (graphical user interface).

Abbreviations: PANDA

Synonyms: PANDA: a pipeline tool for diffusion MRI, PANDA (Pipeline for Analyzing braiN Diffusion imAges), Pipeline for Analyzing braiN Diffusion imAges, PANDA: Pipeline for Analyzing braiN Diffusion imAges, panda-tool

Resource Type: software resource, software toolkit

Defining Citation: PMID:23439846

Keywords: analyze, computational neuroscience, connectivity analysis, dicom, format conversion, gnome, linux, macos, matlab, modeling, magnetic resonance, nifti, posix/unix-like, tensor metric, tractography, workflow, xnat pipeline, diffusion mri, chinese, connectome, diffusion metrics, network, pipeline, structural connectivity

Funding: National Natural Science Foundation of China ;
Beijing Nova Program ;
973 program ;

State Key Laboratory of Cognitive Neuroscience and Learning

Availability: Free, Available for download, Freely available

Resource Name: PANDA

Resource ID: SCR_002511

Alternate IDs: nlx_155911

Alternate URLs: http://www.nitrc.org/projects/panda

License: GNU General Public License v3

Record Creation Time: 20220129T080213+0000

Record Last Update: 20260725T190524+0000

Ratings and Alerts

No rating or validation information has been found for PANDA.

No alerts have been found for PANDA.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 376 mentions in open access literature.

Listed below are recent publications. The full list is available at nidm-terms .

Pelissier A, et al. (2025) BACH1 as a key driver in rheumatoid arthritis fibroblast-like synoviocytes identified through gene network analysis. Life science alliance, 8(1).

Arulsamy K, et al. (2025) SCIG: Machine learning uncovers cell identity genes in single cells by genetic sequence codes. Nucleic acids research, 53(10).

Chu T, et al. (2025) Network control theory uncovers aberrant connectome controllability in trigeminal neuralgia. The journal of headache and pain, 26(1), 174.

Ji Y, et al. (2025) Disrupted topological organization of brain connectome in patients with chronic low back related leg pain and clinical correlations. Scientific reports, 15(1), 7515.

Lu Y, et al. (2025) Detection of structural-functional coupling abnormalities using multimodal brain networks in Alzheimer's disease: A comparison of three computational models. NeuroImage. Clinical, 46, 103764.

Qiu L, et al. (2025) Multi-Parameter MRI for Evaluating Glymphatic Impairment and White-Matter Abnormalities and Discriminating Refractory Epilepsy in Children. Korean journal of radiology, 26(5), 485.

Fa??ndez-Lizama T, et al. (2025) Feasibility-guided evolutionary optimization of pump station design and operation in water networks. Scientific reports, 15(1), 34455.

Wang Y, et al. (2025) Disruption of Multimodal Brain Networks and Structural-Functional Coupling in Adolescents with Major Depressive Disorder. Neuropsychiatric disease and treatment, 21, 791.

Lu W, et al. (2025) Potential compensatory mechanism for cognitive impairment in type 2 diabetes and prediabetes: altered structure-function coupling. Frontiers in endocrinology, 16, 1491377.

Melchert S, et al. (2025) Social cognitive impact of essential tremor. Scientific reports, 15(1), 23591.

Matsuura T, et al. (2025) Selective identification of polyploid hepatocellular carcinomas with poor prognosis by artificial intelligence-based pathological image recognition. Communications medicine, 5(1), 270.

Gao Z, et al. (2025) Combined Functional and Structural Imaging of White Matter Reveals Brain Connectivity Alterations in Fibromyalgia Patients. Journal of pain research, 18, 3361.

Wu X, et al. (2025) Characterization of the white matter networks in schizophrenia patients with metabolic syndrome undergoing risperidone or clozapine treatment. Frontiers in neuroscience, 19, 1579810.

Deng HW, et al. (2025) Novel Pathological Mechanisms Revealed by Spatial Transcriptomic Analysis of Hippocampus in Aged Control, Primary Age-Related Tauopathy, and Alzheimer's Disease. Research square.

Ma Z, et al. (2025) Deep learning-based reconstruction of monthly Antarctic surface air temperatures from 1979 to 2023. Scientific data, 12(1), 847.

Lin CH, et al. (2025) Frailty subtypes and white matter alterations in older adults without dementia. Psychiatry and clinical neurosciences, 79(10), 677.

Yang C, et al. (2025) Thermal Proteome Profiling Reveals Meltome Upon NLRP3 Inflammasome Activation. Molecular & cellular proteomics : MCP, 24(5), 100972.

Chen Y, et al. (2025) Intractable prefrontal and limbic white matter network disruption in adolescents with drug-na??ve nonsuicidal self-injury. BMC psychiatry, 25(1), 662.

Van Acker N, et al. (2025) Spatial mapping of innate lymphoid cells in human lymphoid tissues and lymphoma at single-cell resolution. Nature communications, 16(1), 4545.

Pan F, et al. (2025) Investigating the predictive models of efficacy of accelerated neuronavigation-guided rTMS for suicidal depression based on multimodal large-scale brain networks. International journal of clinical and health psychology : IJCHP, 25(1), 100564.