# **Resource Summary Report**

Generated by NIF on May 11, 2025

## **PANDA**

RRID:SCR\_002511

Type: Tool

## **Proper Citation**

PANDA (RRID:SCR\_002511)

#### **Resource Information**

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

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**Description:** A 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 toolkit, image processing software, software application, data processing software, workflow software, software resource

**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: GNU General Public License v3

Resource Name: PANDA

Resource ID: SCR\_002511

Alternate IDs: nlx\_155911

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

**Record Creation Time:** 20220129T080213+0000

**Record Last Update:** 20250509T055536+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 327 mentions in open access literature.

**Listed below are recent publications.** The full list is available at NIF.

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).

de Villiers Engelbrecht L, et al. (2025) Deep Eutectic Solvents Meet Non-Aqueous Cosolvents: A Modeling and Simulation Perspective-A Tutorial Review. Journal of chemical and engineering data, 70(1), 19.

Nie H, et al. (2025) Reduced white matter integrity and disrupted brain network in children with type 2 and 3 spinal muscular atrophy. Journal of neurodevelopmental disorders, 17(1), 3.

Islam A, et al. (2025) Characterization of RAP Signal Patterns, Temporal Relationships, and Artifact Profiles Derived from Intracranial Pressure Sensors in Acute Traumatic Neural Injury. Sensors (Basel, Switzerland), 25(2).

Miko?ajewski K, et al. (2025) Heavy rainfalls in Poland and their hyetographs. Ambio, 54(1), 86.

Bugazia D, et al. (2024) Pancreatic ductal adenocarcinoma: the latest on diagnosis, molecular profiling, and systemic treatments. Frontiers in oncology, 14, 1386699.

Pape J, et al. (2024) Acceleration of skeletal maturation in Central Europe over the last two decades: insights from two cohorts of healthy children. Pediatric radiology, 54(10), 1686.

Truong TTT, et al. (2024) Network-based drug repurposing for schizophrenia. Neuropsychopharmacology: official publication of the American College of Neuropsychopharmacology, 49(6), 983.

Chen Y, et al. (2024) State- and trait-related dysfunctions in bipolar disorder across different mood states: a graph theory study. Journal of psychiatry & neuroscience: JPN, 49(1), E11.

Pelissier A, et al. (2024) Gene Network Analyses Identify Co-regulated Transcription Factors and BACH1 as a Key Driver in Rheumatoid Arthritis Fibroblast-like Synoviocytes. bioRxiv: the preprint server for biology.

Jiang Y, et al. (2024) A Post-Marketing Surveillance Study of Nusinersen for Spinal Muscular Atrophy in Routine Medical Practice in China: Interim Results. Advances in therapy, 41(7), 2743.

Xu M, et al. (2024) Peak width of skeletonized mean diffusivity as a neuroimaging biomarker in first-episode schizophrenia. Frontiers in neuroscience, 18, 1427947.

Qin C, et al. (2024) Too much social media? Unveiling the effects of determinants in social media fatigue. Frontiers in psychology, 15, 1277846.

Aminu M, et al. (2024) Joint multi-omics discriminant analysis with consistent representation learning using PANDA. Research square.

Du Y, et al. (2024) Multi-omics Analysis of Umbilical Cord Hematopoietic Stem Cells from a Multi-ethnic Cohort of Hawaii Reveals the Transgenerational Effect of Maternal Pre-Pregnancy Obesity. medRxiv: the preprint server for health sciences.

Sone D, et al. (2024) White matter brain-age in diverse forms of epilepsy and interictal psychosis. Scientific reports, 14(1), 19156.

Shafiei T, et al. (2024) Preventing postnatal depression in new mothers using telephone peer

support: protocol for the DAISY (Depression and Anxlety peer Support study) multi-centre randomised controlled trial. BMJ open, 14(5), e087477.

Lochmann H, et al. (2024) Theory of mind and executive dysfunction in chronic inflammatory demyelinating polyneuropathy. European journal of neurology, 31(1), e16053.

Osorio D, et al. (2024) Population-level comparisons of gene regulatory networks modeled on high-throughput single-cell transcriptomics data. Nature computational science, 4(3), 237.

Rahman AU, et al. (2024) Enhancing heart disease prediction using a self-attention-based transformer model. Scientific reports, 14(1), 514.