

Resource Summary Report

Generated by [SPARC SAWG](#) on Jul 28, 2026

Image Registration Toolkit

RRID:SCR_000067

Type: Tool

Proper Citation

Image Registration Toolkit (RRID:SCR_000067)

Resource Information

URL: <https://biomedica.doc.ic.ac.uk/software/mirtk/>

Proper Citation: Image Registration Toolkit (RRID:SCR_000067)

Description: Software image processing toolkit. Provides collection of libraries and command-line tools to assist in processing and analyzing imaging data. Used for adult and neonatal brain MR image registration, including rigid, affine, and non-rigid transformations, as well as reconstruction of cortical surface meshes.

Abbreviations: IRTK, MIRTk

Synonyms: Medical Image Registration ToolKit

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

Defining Citation: [PMID:10534053](#)

Keywords: image processing, processing and analyzing imaging data, adult and neonatal brain MR image registration,

Availability: Free, Available for download, Freely available

Resource Name: Image Registration Toolkit

Resource ID: SCR_000067

Alternate IDs: nlx_155983

Alternate URLs: <https://github.com/BioMedIA/MIRTk>

Old URLs: <http://www.doc.ic.ac.uk/~dr/software/>

Record Creation Time: 20220129T080159+0000

Ratings and Alerts

No rating or validation information has been found for Image Registration Toolkit.

No alerts have been found for Image Registration Toolkit.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 15 mentions in open access literature.

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

Serag A, et al. (2016) Accurate Learning with Few Atlases (ALFA): an algorithm for MRI neonatal brain extraction and comparison with 11 publicly available methods. Scientific reports, 6, 23470.

Asner L, et al. (2016) Estimation of passive and active properties in the human heart using 3D tagged MRI. Biomechanics and modeling in mechanobiology, 15(5), 1121.

Burzynska AZ, et al. (2015) Physical Activity Is Linked to Greater Moment-To-Moment Variability in Spontaneous Brain Activity in Older Adults. PloS one, 10(8), e0134819.

Hadjicharalambous M, et al. (2015) Analysis of passive cardiac constitutive laws for parameter estimation using 3D tagged MRI. Biomechanics and modeling in mechanobiology, 14(4), 807.

Burzynska AZ, et al. (2015) White matter integrity supports BOLD signal variability and cognitive performance in the aging human brain. PloS one, 10(4), e0120315.

Cavallari M, et al. (2014) Microstructural changes in the striatum and their impact on motor and neuropsychological performance in patients with multiple sclerosis. PloS one, 9(7), e101199.

Kuklisova-Murgasova M, et al. (2013) Registration of 3D fetal neurosonography and MRI. Medical image analysis, 17(8), 1137.

Sadeghi N, et al. (2013) Regional characterization of longitudinal DT-MRI to study white matter maturation of the early developing brain. NeuroImage, 68, 236.

Kuklisova-Murgasova M, et al. (2012) Reconstruction of fetal brain MRI with intensity matching and complete outlier removal. Medical image analysis, 16(8), 1550.

Gray KR, et al. (2012) Multi-region analysis of longitudinal FDG-PET for the classification of Alzheimer's disease. NeuroImage, 60(1), 221.

Arichi T, et al. (2012) Development of BOLD signal hemodynamic responses in the human brain. *NeuroImage*, 63(2), 663.

Wang Y, et al. (2011) DTI registration in atlas based fiber analysis of infantile Krabbe disease. *NeuroImage*, 55(4), 1577.

Heckemann RA, et al. (2011) Automatic morphometry in Alzheimer's disease and mild cognitive impairment. *NeuroImage*, 56(4), 2024.

de Boer R, et al. (2010) Accuracy and reproducibility study of automatic MRI brain tissue segmentation methods. *NeuroImage*, 51(3), 1047.

Badea A, et al. (2007) Neuroanatomical phenotypes in the reeler mouse. *NeuroImage*, 34(4), 1363.