

Resource Summary Report

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DW-MRI registration in FSL

RRID:SCR_009461

Type: Tool

Proper Citation

DW-MRI registration in FSL (RRID:SCR_009461)

Resource Information

URL: <http://www.nitrc.org/projects/dwiregistration/>

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Description: This code registers linearly and non-linearly Diffusion Weighted Magnetic Resonance Images (DW-MRIs) by extending FLIRT (linear registration of 3D scalar volumes) and FNIRT (non-linear registration of 3D scalar volumes) in the FMRIB Software Library (FSL) to work with 4D volumes. The basis for registering DW-MRIs is the concept of Angular Interpolation (Tao, X., Miller, J. V., 2006. A method for registering diffusion weighted magnetic resonance images. In: MICCAI. Vol. 9. pp. 594-602), which is implemented and extended to non-linear registration, based on the FLIRT and FNIRT models in FSL. See

http://www.frontiersin.org/Brain_Imaging_Methods/10.3389/fnins.2013.00041/abstract. The code does not overwrite FLIRT, FNIRT or any of the FSL C++ code. It is added as FLIRT4D, FNIRT4D and supporting cost functions. The makefiles will however be overwritten to compile the new code, without affecting any version of FSL.

Abbreviations: DW-MRI registration in FSL

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

Defining Citation: [PMID:23596381](#)

Keywords: magnetic resonance, diffusion weighted magnetic resonance image

Availability: FSL License

Resource Name: DW-MRI registration in FSL

Resource ID: SCR_009461

Alternate IDs: nlx_155607

Record Creation Time: 20220129T080253+0000

Record Last Update: 20260903T234955+0000

Ratings and Alerts

No rating or validation information has been found for DW-MRI registration in FSL.

No alerts have been found for DW-MRI registration in FSL.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 2 mentions in open access literature.

Listed below are recent publications. The full list is available at [kravitz2](#) .

Stoye DQ, et al. (2020) Maternal cortisol is associated with neonatal amygdala microstructure and connectivity in a sexually dimorphic manner. eLife, 9.

Hakonen M, et al. (2017) Predictive processing increases intelligibility of acoustically distorted speech: Behavioral and neural correlates. Brain and behavior, 7(9), e00789.