

Resource Summary Report

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BRAINSFit

RRID:SCR_002340

Type: Tool

Proper Citation

BRAINSFit (RRID:SCR_002340)

Resource Information

URL: <https://github.com/BRAINSia/BRAINSTools/tree/master/BRAINSFit>

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Description: A program for registering images with with mutual information based metric. Several registration options are given for 3,6, 9,12,16 parameter (i.e. translate, rigid, scale, scale/skew, full affine) based constraints for the registration. The program uses the Slicer3 execution model framework to define the command line arguments and can be fully integrated with Slicer3 using the module discovery capabilities of Slicer3

Abbreviations: BRAINSFit

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

Keywords: affine warp, analyze, c++, console (text based), dicom, image-to-image, intermodal, intersubject, linear warp, macos, microsoft, magnetic resonance, nifti, os independent, posix/unix-like, registration, spatial transformation, warping, windows

Availability: BSD License

Resource Name: BRAINSFit

Resource ID: SCR_002340

Alternate IDs: nlx_155701

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

Record Creation Time: 20220129T080212+0000

Record Last Update: 20260808T185740+0000

Ratings and Alerts

No rating or validation information has been found for BRAINSFit.

No alerts have been found for BRAINSFit.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 20 mentions in open access literature.

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

Tran N, et al. (2025) Novel radiotherapy target definition using AI-driven predictions of glioblastoma recurrence from metabolic and diffusion MRI. NPJ digital medicine, 8(1), 508.

Nishio M, et al. (2025) Myelination across cortical hierarchies and depths in humans and macaques. bioRxiv : the preprint server for biology.

Malarvizhi GL, et al. (2025) Rationally Designed Functionalized Phytochemical-Conjugated Fullerene Quantum Dots Inhibiting Viral Chaperone Activity and RNA-Dependent RNA Polymerase in Nipah Virus. FASEB journal : official publication of the Federation of American Societies for Experimental Biology, 39(15), e70890.

Zheng Z, et al. (2024) The effect of pallidal stimulation on sleep outcomes and related brain connectometries in Parkinson's disease. NPJ Parkinson's disease, 10(1), 212.

Hokkinen L, et al. (2024) Factors influencing the reliability of a CT angiography-based deep learning method for infarct volume estimation. BJR open, 6(1), tzae001.

Bertsche D, et al. (2024) Impact of cardiac and respiratory motion on the 3D accuracy of image-guided interventions on monoplane systems. International journal of computer assisted radiology and surgery, 19(2), 367.

Estudillo-Romero A, et al. (2022) Voxel-based diktiometry: Combining convolutional neural networks with voxel-based analysis and its application in diffusion tensor imaging for Parkinson's disease. Human brain mapping, 43(16), 4835.

Schumacher FK, et al. (2021) The rostro-caudal gradient in the prefrontal cortex and its modulation by subthalamic deep brain stimulation in Parkinson's disease. Scientific reports, 11(1), 2138.

Xu J, et al. (2021) Management of Parkinson's disease patients after DBS by remote programming: preliminary application of single center during quarantine of 2019-nCoV. Journal of neurology, 268(4), 1295.

Lambriks LJG, et al. (2020) Evaluating hearing performance with cochlear implants within the same patient using daily randomization and imaging-based fitting - The ELEPHANT study. Trials, 21(1), 564.

Nousiainen K, et al. (2020) Measuring geometric accuracy in magnetic resonance imaging with 3D-printed phantom and nonrigid image registration. *Magma (New York, N.Y.)*, 33(3), 401.

Wang D, et al. (2020) Electrophysiological properties and seizure networks in hypothalamic hamartoma. *Annals of clinical and translational neurology*, 7(5), 653.

Gerb J, et al. (2020) VOLT: a novel open-source pipeline for automatic segmentation of endolymphatic space in inner ear MRI. *Journal of neurology*, 267(Suppl 1), 185.

Hu M, et al. (2020) Neural processes of auditory perception in Heschl's gyrus for upcoming acoustic stimuli in humans. *Hearing research*, 388, 107895.

??man O, et al. (2019) 3D convolutional neural networks applied to CT angiography in the detection of acute ischemic stroke. *European radiology experimental*, 3(1), 8.

Yang C, et al. (2019) Analysis of Contact Position for Subthalamic Nucleus Deep Brain Stimulation-Induced Hyperhidrosis. *Parkinson's disease*, 2019, 8180123.

Schroll H, et al. (2018) Reinforcement magnitudes modulate subthalamic beta band activity in patients with Parkinson's disease. *Scientific reports*, 8(1), 8621.

Horn A, et al. (2017) Toward an electrophysiological "sweet spot" for deep brain stimulation in the subthalamic nucleus. *Human brain mapping*, 38(7), 3377.

Dees G, et al. (2016) A Proposed Method for Accurate 3D Analysis of Cochlear Implant Migration Using Fusion of Cone Beam CT. *Frontiers in surgery*, 3, 2.

Horky LL, et al. (2014) Systemic chemotherapy decreases brain glucose metabolism. *Annals of clinical and translational neurology*, 1(10), 788.