Resource Summary Report

Generated by kravitz2 on Jul 30, 2026

ITK-SNAP

RRID:SCR_002010
Type: Tool

Proper Citation

ITK-SNAP (RRID:SCR_002010)

Resource Information

URL: http://www.nitrc.org/projects/itk-snap/

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Description: Open source interactive software application for three dimentional medical images, manual delineation of anatomical regions of interest, and performing automatic image segmentation. Used for delineating anatomical structures and regions in MRI, CT and other 3D biomedical imaging data.WebGL-based viewer for volumetric data. It is capable of displaying arbitrary (non axis-aligned) cross-sectional views of volumetric data, as well as 3-D meshes and line-segment based models (skeletons).

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

Defining Citation: PMID:29946897

Keywords: medical, image, segmentation, delineating, anatomical, structure, region, MRI, CT, 3D image, data

Funding: NIBIB R01 EB014346

Availability: Free, Available for download, Freely available

Resource Name: ITK-SNAP

Resource ID: SCR_002010

Alternate IDs: nif-0000-00317

Alternate URLs: https://github.com/google/neuroglancer, https://opensource.google.com/projects/neuroglancer

License: GNU GPL

Record Creation Time: 20220129T080211+0000

Record Last Update: 20260729T044019+0000

Ratings and Alerts

No rating or validation information has been found for ITK-SNAP.

No alerts have been found for ITK-SNAP.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 2629 mentions in open access literature.

Listed below are recent publications. The full list is available at kravitz2 .

Casanova-Pagola J, et al. (2026) Early-life cognitive intervention preserves brain function in aged TgF344-AD rats with sex-specific effects. iScience, 29(1), 114381.

Yang F, et al. (2025) Deep learning reconstruction for accelerating synthetic magnetic resonance imaging of the breast: a comparative analysis of accelerated and standard protocols. Quantitative imaging in medicine and surgery, 15(10), 8953.

Jiang J, et al. (2025) Interpretable multimodal deep learning model for predicting post-surgical international society of urological pathology grade in primary prostate cancer. European journal of nuclear medicine and molecular imaging, 52(10), 3730.

Pournajaf S, et al. (2025) Fingolimod Inhibits C6 Rat Glioma Proliferation and Migration, Induces Sub-G1 Cell Cycle Arrest, Mitochondrial and Extrinsic Apoptosis In Vitro and Reduces Tumour Growth In Vivo. Clinical and experimental pharmacology & physiology, 52(1), e70012.

Yu R, et al. (2025) Prediction of thyroid function based on CT radiomics: a two-center study. Quantitative imaging in medicine and surgery, 15(12), 12190.

Mortensen KN, et al. (2025) Perivascular cerebrospinal fluid inflow matches interstitial fluid efflux in anesthetized rats. iScience, 28(5), 112323.

Penna-Gonçalves V, et al. (2025) Volumetric Comparison of Overall Brain and Neuropil Size Between Social and Non-social Spiders: Exploring the Social Brain Hypothesis. Integrative zoology.

Wang Y, et al. (2025) Toward general text-guided multimodal brain MRI synthesis for diagnosis and medical image analysis. Cell reports. Medicine, 6(6), 102182.

Wang L, et al. (2025) Predicting Pancreatic Ductal Adenocarcinoma Occurrence Up to 10 Years in Advance Using Features of the Main Pancreatic Duct in Pre-Diagnostic CT Scans. Cancers, 17(11).

Kjer HM, et al. (2025) Bridging the 3D geometrical organisation of white matter pathways across anatomical length scales and species. eLife, 13.

Combes BF, et al. (2025) Spiral volumetric optoacoustic tomography of reduced oxygen saturation in the spinal cord of M83 mouse model of Parkinson's disease. European journal of nuclear medicine and molecular imaging, 52(2), 427.

Abdelazeem KNM, et al. (2025) Manipulating the EphB4-ephrinB2 axis to reduce metastasis in HNSCC. Oncogene, 44(3), 130.

Lindland ES, et al. (2025) Are white matter hyperintensities associated with neuroborreliosis? The answer is twofold. Neuroradiology, 67(1), 37.

Grimm K, et al. (2025) Atrophy of cerebellar lobule VI and primary motor cortex in cervical dystonia - a region of interest-based study. Journal of neural transmission (Vienna, Austria : 1996), 132(2), 257.

Flügge T, et al. (2025) Automated tooth segmentation in magnetic resonance scans using deep learning - A pilot study. Dento maxillo facial radiology, 54(1), 12.

Zuo Z, et al. (2025) Quantifying intratumoral heterogeneity within sub-regions to predict high-grade patterns in clinical stage I solid lung adenocarcinoma. BMC cancer, 25(1), 51.

Liu CM, et al. (2025) The impact of highly effective modulator therapy on sinusitis and dysosmia in young children with cystic fibrosis: a prospective study protocol. ERJ open research, 11(1).

Manzke M, et al. (2025) Repeatability of radiomic features in myocardial T1 and T2 mapping. European radiology, 35(3), 1570.

Shin TW, et al. (2025) Dense, continuous membrane labeling and expansion microscopy visualization of ultrastructure in tissues. Nature communications, 16(1), 1579.

Alkhatatbeh T, et al. (2025) Interpretable machine learning and radiomics in hip MRI diagnostics: comparing ONFH and OA predictions to experts. Frontiers in immunology, 16, 1532248.