

Resource Summary Report

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Template-O-Matic Toolbox

RRID:SCR_003220

Type: Tool

Proper Citation

Template-O-Matic Toolbox (RRID:SCR_003220)

Resource Information

URL: <https://neuro-jena.github.io/software.html#tom>

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Description: Software toolbox for creating customized pediatric templates. It provides reference data based on imaging data from the NIH study of normal brain development. Using the general linear model, they statistically isolate the influence of external variables of interest on brain structure, allowing us to generate high-quality matched templates for any given group of subjects. The toolbox offers two options: # to create pediatric templates (T1) and tissue maps (GM, WM, and CSF) based on the objective 1 NIH data (n = 404), in the age range of 5-18 years, or # to assess a new reference population with regard to your variables of interest. Of note, this approach is generally applicable and in no way restricted to analyzing pediatric imaging data: for example, if you aim at investigating the effects of aging in elderly subjects, the toolbox will also allow you to create more appropriate reference (if your group is large enough to isolate such effects).

Abbreviations: TOM Toolbox, TOM

Synonyms: Template-O-Matic

Resource Type: software toolkit, software resource

Defining Citation: [PMID:18424084](#)

Keywords: reference, pediatric, neuroimaging, template

Availability: Free, Available for download, Freely available

Resource Name: Template-O-Matic Toolbox

Resource ID: SCR_003220

Alternate IDs: nlx_157256

Old URLs: <http://dbm.neuro.uni-jena.de/software/tom/>

Record Creation Time: 20220129T080217+0000

Record Last Update: 20260815T182939+0000

Ratings and Alerts

No rating or validation information has been found for Template-O-Matic Toolbox.

No alerts have been found for Template-O-Matic Toolbox.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 12 mentions in open access literature.

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

Zhao DY, et al. (2024) Autophagy preferentially degrades non-fibrillar polyQ aggregates. Molecular cell, 84(10), 1980.

Martins M, et al. (2023) Individual differences in rhythm perception modulate music-related motor learning: a neurobehavioral training study with children. Scientific reports, 13(1), 21552.

Agoalikum E, et al. (2023) Structural differences among children, adolescents, and adults with attention-deficit/hyperactivity disorder and abnormal Granger causality of the right pallidum and whole-brain. Frontiers in human neuroscience, 17, 1076873.

Ji Y, et al. (2022) Temporopolar volumes are associated with the severity of social impairment and language development in children with autism spectrum disorder with developmental delay. Frontiers in psychiatry, 13, 1072272.

Chen Y, et al. (2022) Gray matter volumetric correlates of dimensional impulsivity traits in children: Sex differences and heritability. Human brain mapping, 43(8), 2634.

Sylvester T, et al. (2021) Neural correlates of affective contributions to lexical decisions in children and adults. Scientific reports, 11(1), 945.

Coez A, et al. (2021) Arterial spin labeling brain MRI study to evaluate the impact of deafness on cerebral perfusion in 79 children before cochlear implantation. NeuroImage. Clinical, 29, 102510.

Wang J, et al. (2017) Increased Gray Matter Volume and Resting-State Functional Connectivity in Somatosensory Cortex and their Relationship with Autistic Symptoms in Young Boys with Autism Spectrum Disorder. Frontiers in physiology, 8, 588.

Ji L, et al. (2017) Multiple Neuroimaging Measures for Examining Exercise-induced Neuroplasticity in Older Adults: A Quasi-experimental Study. *Frontiers in aging neuroscience*, 9, 102.

Dalwani MS, et al. (2015) Female adolescents with severe substance and conduct problems have substantially less brain gray matter volume. *PloS one*, 10(5), e0126368.

Mohades SG, et al. (2014) Age of second language acquisition affects nonverbal conflict processing in children: an fMRI study. *Brain and behavior*, 4(5), 626.

McLaren DG, et al. (2009) A population-average MRI-based atlas collection of the rhesus macaque. *NeuroImage*, 45(1), 52.