Resource Summary Report

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hMRI-toolbox

RRID:SCR_017682
Type: Tool

Proper Citation

hMRI-toolbox (RRID:SCR_017682)

Resource Information

URL: http://hmri.info

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Description: Software toolbox for quantitative MRI in neuroscience and clinical research. Open source and flexible tool for qMRI data handling and processing. Allows estimation of high quality multi parameter qMRI maps followed by spatial registration in common space for statistical analysis.

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

Defining Citation: DOI:10.1016/j.neuroimage.2019.01.029

Keywords: Quantitative, MRI, data, processing, multi, parameter, qMRI, map, spatial, registration, statistical, analysis, histology, longitudinal, relaxation, rate R1 and R2, proton, density, magnetisation, transfer, MT saturation

Funding: European Structural and Investment Fund ;
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Leenaards Foundation ;
Roger De Spoelberch Foundation ;
Wellcome Trust ;
Emory Universitys Research Council ;
Swedish Research Council

Availability: Free, Available for download, Freely available

Resource Name: hMRI-toolbox

Resource ID: SCR_017682

Alternate URLs: https://github.com/hMRI-group/hMRI-toolbox

License: GNU GPL v2

Record Creation Time: 20220129T080336+0000

Record Last Update: 20260803T040752+0000

Ratings and Alerts

No rating or validation information has been found for hMRI-toolbox.

No alerts have been found for hMRI-toolbox.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 33 mentions in open access literature.

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

Raynaud Q, et al. (2026) ISME-incoherent sampling of multi-echo data to minimize cardiac-induced noise in brain maps of R 2 * $$ {R}_2^{\ast } $$ and magnetic susceptibility. Magnetic resonance in medicine, 95(2), 897.

Aye N, et al. (2025) Longitudinal Changes of Quantitative Brain Tissue Properties Induced by Balance Training. Human brain mapping, 46(4), e70128.

Oliveira R, et al. (2025) In Vivo Characterization of Magnetic Inclusions in the Subcortex From Nonexponential Transverse Relaxation Decay. NMR in biomedicine, 38(6), e70051.

Bosticardo S, et al. (2025) TIME: Tractography-Informed myelin estimation. NeuroImage. Clinical, 48, 103878.

Wiltgen T, et al. (2025) Towards quantitative intensity analysis of conventional T1-weighted images in multiple sclerosis. NeuroImage, 318, 121395.

Deantoni M, et al. (2024) Circadian rapid eye movement sleep expression is associated with brain microstructural integrity in older adults. Communications biology, 7(1), 758.

Taubert M, et al. (2024) Higher surface folding of the human premotor cortex is associated with better long-term learning capability. Communications biology, 7(1), 635.

Sanabria-Diaz G, et al. (2024) Advanced MRI Measures of Myelin and Axon Volume Identify Repair in Multiple Sclerosis. Annals of neurology, 97(1), 134.

Trang H, et al. (2024) A quantitative multi-parameter mapping protocol standardized for clinical research in multiple sclerosis. Scientific reports, 14(1), 30481.

Talwar P, et al. (2023) In vivo marker of brainstem myelin is associated to quantitative sleep parameters in healthy young men. Scientific reports, 13(1), 20873.

Vandeleene N, et al. (2023) Using quantitative magnetic resonance imaging to track cerebral alterations in multiple sclerosis brain: A longitudinal study. Brain and behavior, 13(5), e2923.

Edwards LJ, et al. (2023) Quantitative MRI maps of human neocortex explored using cell type-specific gene expression analysis. Cerebral cortex (New York, N.Y. : 1991), 33(9), 5704.

Deantoni M, et al. (2023) Association between sleep slow-wave activity and in-vivo estimates of myelin in healthy young men. NeuroImage, 272, 120045.

Friederici AD, et al. (2023) Brain structure and function: a multidisciplinary pipeline to study hominoid brain evolution. Frontiers in integrative neuroscience, 17, 1299087.

Berg RC, et al. (2022) Multi-parameter quantitative mapping of R1, R2*, PD, and MTsat is reproducible when accelerated with Compressed SENSE. NeuroImage, 253, 119092.

Chylinski D, et al. (2022) Timely coupling of sleep spindles and slow waves linked to early amyloid-?? burden and predicts memory decline. eLife, 11.

Berg RC, et al. (2022) Comparing myelin-sensitive magnetic resonance imaging measures and resulting g-ratios in healthy and multiple sclerosis brains. NeuroImage, 264, 119750.

Aye N, et al. (2022) Test-retest reliability of multi-parametric maps (MPM) of brain microstructure. NeuroImage, 256, 119249.

Mohammadi S, et al. (2022) Error quantification in multi-parameter mapping facilitates robust estimation and enhanced group level sensitivity. NeuroImage, 262, 119529.

Van Egroo M, et al. (2021) Early brainstem [18F]THK5351 uptake is linked to cortical hyperexcitability in healthy aging. JCI insight, 6(2).