Tobias Kober

List of Publications by Year
in descending order

97 papers	3,315 citations	236925 25 h-index	182427 51 g-index
99 all docs	99 docs citations	99 times ranked	4125 citing authors

#	Article	IF	Citations
1	MP2RAGE, a self bias-field corrected sequence for improved segmentation and T1-mapping at high field. NeuroImage, 2010, 49, 1271-1281.	4.2	1,075
2	Robust T1-Weighted Structural Brain Imaging and Morphometry at 7T Using MP2RAGE. PLoS ONE, 2014, 9, e99676.	2.5	103
3	Quantitative comparison of cortical surface reconstructions from MP2RAGE and multi-echo MPRAGE data at 3 and 7T. NeuroImage, 2014, 90, 60-73.	4.2	85
4	MP2RAGE Multiple Sclerosis Magnetic Resonance Imaging at 3 T. Investigative Radiology, 2012, 47, 346-352.	6.2	72
5	SA2RAGE: A new sequence for fast B₁⁺â€mapping. Magnetic Resonance in Medicine, 2012, 67, 1609-1619.	3.0	71
6	Accelerated T₂ mapping combining parallel MRI and modelâ€based reconstruction: GRAPPATINI. Journal of Magnetic Resonance Imaging, 2018, 48, 359-368.	3.4	71
7	Serum GFAP in multiple sclerosis: correlation with disease type and MRI markers of disease severity. Scientific Reports, 2020, 10, 10923.	3.3	66
8	Simultaneous Quantitative MRI Mapping of T1, T2* and Magnetic Susceptibility with Multi-Echo MP2RAGE. PLoS ONE, 2017, 12, e0169265.	2.5	65
9	Improved Visualization of Cortical Lesions in Multiple Sclerosis Using 7T MP2RAGE. American Journal of Neuroradiology, 2018, 39, 459-466.	2.4	65
10	Temporal SNR characteristics in segmented 3Dâ€EPI at 7T. Magnetic Resonance in Medicine, 2012, 67, 344-352.	3.0	64
11	Automated detection of white matter and cortical lesions in early stages of multiple sclerosis. Journal of Magnetic Resonance Imaging, 2016, 43, 1445-1454.	3.4	64
12	Prospective and retrospective motion correction in diffusion magnetic resonance imaging of the human brain. NeuroImage, 2012, 59, 389-398.	4.2	61
13	Fluid and white matter suppression with the MP2RAGE sequence. Journal of Magnetic Resonance Imaging, 2012, 35, 1063-1070.	3.4	60
14	Head motion detection using FID navigators. Magnetic Resonance in Medicine, 2011, 66, 135-143.	3.0	58
15	Dielectric pads and lowâ€adiabatic pulses: Complementary techniques to optimize structural T₁w wholeâ€brain MP2RAGE scans at 7 tesla. Journal of Magnetic Resonance Imaging, 2014, 40, 804-812.	3.4	58
16	Magnetization transfer in magnetic resonance fingerprinting. Magnetic Resonance in Medicine, 2020, 84, 128-141.	3.0	52
17	Artificial Intelligence in Musculoskeletal Imaging: Review of Current Literature, Challenges, and Trends. Seminars in Musculoskeletal Radiology, 2019, 23, 304-311.	0.7	51
18	Motion Compensation Strategies in Magnetic Resonance Imaging. Critical Reviews in Biomedical Engineering, 2012, 40, 99-119.	0.9	49

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19	Probing myelin content of the human brain with MRI: A review. Magnetic Resonance in Medicine, 2021, 85, 627-652.	3.0	42
20	Head motion measurement and correction using <scp>FID</scp> navigators. Magnetic Resonance in Medicine, 2019, 81, 258-274.	3.0	40
21	Automated Detection and Segmentation of Multiple Sclerosis Lesions Using Ultraâ€“High-Field MP2RAGE. Investigative Radiology, 2019, 54, 356-364.	6.2	34
22	An in vivo study of the orientationâ€dependent and independent components of transverse relaxation rates in white matter. NMR in Biomedicine, 2016, 29, 1780-1790.	2.8	33
23	Minimization of Nyquist ghosting for echoâ€planar imaging at ultraâ€high fields based on a â€œnegative readout gradientâ€•strategy. Journal of Magnetic Resonance Imaging, 2009, 30, 1171-1178.	3.4	31
24	MRI T2 Mapping of the Knee Providing Synthetic Morphologic Images: Comparison to Conventional Turbo Spin-Echo MRI. Radiology, 2019, 293, 620-630.	7.3	31
25	CVSnet: A machine learning approach for automated central vein sign assessment in multiple sclerosis. NMR in Biomedicine, 2020, 33, e4283.	2.8	31
26	Accelerated MP2RAGE imaging using Cartesian phyllotaxis readout and compressed sensing reconstruction. Magnetic Resonance in Medicine, 2020, 84, 1881-1894.	3.0	30
27	The role of brain perivascular space burden in early-stage Parkinsonâ€™s disease. Npj Parkinson's Disease, 2021, 7, 12.	5.3	30
28	Investigation of lateral geniculate nucleus volume and diffusion tensor imaging in patients with normal tension glaucoma using 7 tesla magnetic resonance imaging. PLoS ONE, 2018, 13, e0198830.	2.5	28
29	Gray-matter-specific MR imaging improves the detection of epileptogenic zones in focal cortical dysplasia: A new sequence called fluid and white matter suppression (FLAWS). NeuroImage: Clinical, 2018, 20, 388-397.	2.7	27
30	Model-informed machine learning for multi-component<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:msub><mml:mi>T</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>relaxometry. Medical Image Analysis, 2021, 69, 101940.	11.6	26
31	Longitudinal analysis of white matter and cortical lesions in multiple sclerosis. NeuroImage: Clinical, 2019, 23, 101938.	2.7	25
32	MP2RAGE provides new clinically-compatible correlates of mild cognitive deficits in relapsing-remitting multiple sclerosis. Journal of Neurology, 2014, 261, 1606-1613.	3.6	24
33	Brain tissue segmentation based on MP2RAGE multi-contrast images in 7 T MRI. PLoS ONE, 2019, 14, e0210803.	2.5	23
34	Rapid measurement and correction of spatiotemporal B₀ field changes using FID navigators and a multiâ€channel reference image. Magnetic Resonance in Medicine, 2020, 83, 575-589.	3.0	23
35	A novel manipulation method of human body ownership using an fMRI-compatible masterâ€“slave system. Journal of Neuroscience Methods, 2014, 235, 25-34.	2.5	22
36	Test-retest variability of brain morphometry analysis: an investigation of sequence and coil effects. Annals of Translational Medicine, 2020, 8, 12-12.	1.7	22

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37	A Connectome-Based Comparison of Diffusion MRI Schemes. PLoS ONE, 2013, 8, e75061.	2.5	21
38	Basic MR sequence parameters systematically bias automated brain volume estimation. Neuroradiology, 2016, 58, 1153-1160.	2.2	21
39	RimNet: A deep 3D multimodal MRI architecture for paramagnetic rim lesion assessment in multiple sclerosis. NeuroImage: Clinical, 2020, 28, 102412.	2.7	21
40	Episodic memory decline in Parkinsonâ€™s disease: relation with white matter hyperintense lesions and influence of quantification method. Brain Imaging and Behavior, 2019, 13, 810-818.	2.1	20
41	Novel <scp>T2</scp> Mapping for Evaluating Cervical Cancer Features by Providing Quantitative <scp>T2</scp> Maps and Synthetic Morphologic Images: A Preliminary Study. Journal of Magnetic Resonance Imaging, 2020, 52, 1859-1869.	3.4	20
42	Micro-Structural Brain Alterations in Aviremic HIV+ Patients with Minor Neurocognitive Disorders: A Multi-Contrast Study at High Field. PLoS ONE, 2013, 8, e72547.	2.5	19
43	Quantitative brain relaxation atlases for personalized detection and characterization of brain pathology. Magnetic Resonance in Medicine, 2020, 83, 337-351.	3.0	19
44	Morphometric MRI Analysis: Improved Detection of Focal Cortical Dysplasia Using the MP2RAGE Sequence. American Journal of Neuroradiology, 2020, 41, 1009-1014.	2.4	19
45	Deep Learning to Automate Reference-Free Image Quality Assessment of Whole-Heart MR Images. Radiology: Artificial Intelligence, 2020, 2, e190123.	5.8	18
46	An Ultra-High Field Study of Cerebellar Pathology in Early Relapsing-Remitting Multiple Sclerosis Using MP2RAGE. Investigative Radiology, 2017, 52, 265-273.	6.2	17
47	Evaluating anorexia-related brain atrophy using MP2RAGE-based morphometry. European Radiology, 2017, 27, 5064-5072.	4.5	16
48	Fast and highâ€resolution myelin water imaging: Accelerating multiâ€echo GRASE with CAIPIRINHA. Magnetic Resonance in Medicine, 2021, 85, 209-222.	3.0	16
49	Dynamic distortion correction for functional MRI using FID navigators. Magnetic Resonance in Medicine, 2021, 85, 1294-1307.	3.0	16
50	Clinical implementation of accelerated T2 mapping: Quantitative magnetic resonance imaging as a biomarker for annular tear and lumbar disc herniation. European Radiology, 2021, 31, 3590-3599.	4.5	16
51	Comparison of non-parametric T2 relaxometry methods for myelin water quantification. Medical Image Analysis, 2021, 69, 101959.	11.6	16
52	Patient respiratoryâ€triggered quantitative T₂ mapping in the pancreas. Journal of Magnetic Resonance Imaging, 2019, 50, 410-416.	3.4	15
53	Accuracy and Precision of Head Motion Information in Multi-Channel Free Induction Decay Navigators for Magnetic Resonance Imaging. IEEE Transactions on Medical Imaging, 2015, 34, 1879-1889.	8.9	14
54	Comparison of accelerated T1-weighted whole-brain structural-imaging protocols. NeuroImage, 2016, 124, 157-167.	4.2	14

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55	Reduction of motion artifacts in carotid MRI using freeâ€induction decay navigators. Journal of Magnetic Resonance Imaging, 2014, 40, 214-220.	3.4	13
56	Regional T₁ mapping of the whole cervical spinal cord using an optimized MP2RAGE sequence. NMR in Biomedicine, 2019, 32, e4142.	2.8	13
57	Quantitative T2 mapping accelerated by GRAPPATINI for evaluation of muscles in patients with myositis. British Journal of Radiology, 2019, 92, 20190109.	2.2	13
58	Methanol Poisoning as an Acute Toxicological Basal Ganglia Lesion Model: Evidence from Brain Volumetry and Cognition. Alcoholism: Clinical and Experimental Research, 2019, 43, 1486-1497.	2.4	12
59	Eddy current effects on a clinical 7T-68Âcm bore scanner. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2010, 23, 39-43.	2.0	11
60	Prospective head motion correction using FIDâ€guided onâ€demand image navigators. Magnetic Resonance in Medicine, 2017, 78, 193-203.	3.0	11
61	Fast modelâ€based T₂ mapping using SARâ€reduced simultaneous multislice excitation. Magnetic Resonance in Medicine, 2019, 82, 2090-2103.	3.0	11
62	Advantages of fluid and white matter suppression (FLAWS) with MP2RAGE compared with double inversion recovery turbo spin echo (DIR-TSE) at 7T. European Journal of Radiology, 2019, 116, 160-164.	2.6	11
63	Modelâ€based superâ€resolution reconstruction of T₂ maps. Magnetic Resonance in Medicine, 2020, 83, 906-919.	3.0	11
64	Partial volume-aware assessment of multiple sclerosis lesions. NeuroImage: Clinical, 2018, 18, 245-253.	2.7	10
65	Accelerated T2 Mapping of the Lumbar Intervertebral Disc. Investigative Radiology, 2020, 55, 695-701.	6.2	10
66	Automated MRI-based volumetry of basal ganglia and thalamus at the chronic phase of cortical stroke. Neuroradiology, 2020, 62, 1371-1380.	2.2	10
67	Improved temporal resolution for functional studies with reduced number of segments with threeâ€dimensional echo planar imaging. Magnetic Resonance in Medicine, 2014, 72, 786-792.	3.0	9
68	<scp>Qâ€Ðixon</scp> and <scp>GRAPPATINI T2</scp> Mapping Parameters: A Whole Spinal Assessment of the Relationship Between Osteoporosis and Intervertebral Disc Degeneration. Journal of Magnetic Resonance Imaging, 2022, 55, 1536-1546.	3.4	9
69	T1-Based Synthetic Magnetic Resonance Contrasts Improve Multiple Sclerosis and Focal Epilepsy Imaging at 7 T. Investigative Radiology, 2021, 56, 127-133.	6.2	9
70	Periventricular gradient of T1 tissue alterations in multiple sclerosis. NeuroImage: Clinical, 2022, 34, 103009.	2.7	9
71	Compressed sensing with signal averaging for improved sensitivity and motion artifact reduction in fluorineâ€19 MRI. NMR in Biomedicine, 2021, 34, e4418.	2.8	8
72	Magnetization-prepared 2 Rapid Gradient-Echo MRI for B1 Insensitive 3D T1 Mapping of Hip Cartilage: An Experimental and Clinical Validation. Radiology, 2021, 299, 150-158.	7.3	8

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73	Fluid and White Matter Suppression Imaging and Voxel-Based Morphometric Analysis in Conventional Magnetic Resonance Imaging-Negative Epilepsy. Frontiers in Neurology, 2021, 12, 651592.	2.4	8
74	Revisiting the T2 spectrum imaging inverse problem: Bayesian regularized non-negative least squares. NeuroImage, 2021, 244, 118582.	4.2	8
75	A New Approach for Deep Gray Matter Analysis Using Partial-Volume Estimation. PLoS ONE, 2016, 11, e0148631.	2.5	7
76	Cerebral Gray and White Matter Involvement in Anorexia Nervosa Evaluated by T1, T2, and T2* Mapping. Journal of Neuroimaging, 2019, 29, 598-604.	2.0	7
77	Fully automated detection of focal cortical dysplasia: Comparison of MPRAGE and MP2RAGE sequences. Epilepsia, 2022, 63, 75-85.	5.1	7
78	Segmentation of Cortical and Subcortical Multiple Sclerosis Lesions Based on Constrained Partial Volume Modeling. Lecture Notes in Computer Science, 2017, , 142-149.	1.3	6
79	MRI-based brain volumetry and retinal optical coherence tomography as the biomarkers of outcome in acute methanol poisoning. NeuroToxicology, 2020, 80, 12-19.	3.0	6
80	Clinical correlates of white matter lesions in Parkinson's disease using automated multi-modal segmentation measures. Journal of the Neurological Sciences, 2021, 427, 117518.	0.6	6
81	Clinical equivalence assessment of T2 synthesized pediatric brain magnetic resonance imaging. Journal of Neuroradiology, 2019, 46, 130-135.	1.1	5
82	Normal volumetric and T1 relaxation time values at 1.5ÂT in segmented pediatric brain MRI using a MP2RAGE acquisition. European Radiology, 2021, 31, 1505-1516.	4.5	4
83	Improving diagnosis accuracy of brain volume abnormalities during childhood with an automated MP2RAGE-based MRI brain segmentation. Journal of Neuroradiology, 2021, 48, 259-265.	1.1	4
84	Validating atlas-based lesion disconnectomics in multiple sclerosis: A retrospective multi-centric study. NeuroImage: Clinical, 2021, 32, 102817.	2.7	4
85	A Fetal Brain magnetic resonance Acquisition Numerical phantom (FaBiAN). Scientific Reports, 2022, 12, .	3.3	4
86	Evaluating reproducibility and subject-specificity of microstructure-informed connectivity. NeuroImage, 2022, 258, 119356.	4.2	4
87	Assessment of brain volumes obtained from MP-RAGE and MP2RAGE images, quantified using different segmentation methods. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2020, 33, 757-767.	2.0	3
88	Comparison of 2D simultaneous multi-slice and 3D GRASE readout schemes for pseudo-continuous arterial spin labeling of cerebral perfusion at 3 T. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2021, 34, 437-450.	2.0	3
89	Synthetic T2-weighted images of the lumbar spine derived from an accelerated T2 mapping sequence: Comparison to conventional T2w turbo spin echo. Magnetic Resonance Imaging, 2021, 84, 92-100.	1.8	3
90	Free induction decay navigator motion metrics for prediction of diagnostic image quality in pediatric MRI. Magnetic Resonance in Medicine, 2021, 85, 3169-3181.	3.0	2

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91	Multi-Compartment Diffusion Mri, T2 Relaxometry And Myelin Water Imaging As Neuroimaging Descriptors For Anomalous Tissue Detection. , 2021, , .		2
92	Quantitative comparison of subcortical and ventricular volumetry derived from MPRAGE and MP2RAGE images using different brain morphometry software. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2021, 34, 903-914.	2.0	2
93	Letter to the Editor regarding article â€œTechnical and clinical validation of commercial automated volumetric MRI tools for dementia diagnosisâ€”a systematic reviewâ€•(DOI 10.1007/s00234-021â€“02818-4). Neuroradiology, 2022, , 1.	2.2	1
94	Motion compensated carotid MRI using FID navigators. Journal of Cardiovascular Magnetic Resonance, 2013, 15, P242.	3.3	0
95	Multivariate and predictive modelling of neural variability in mild cognitive impairment. , 2018, , .		0
96	Simulated Half-Fourier Acquisitions Single-shot Turbo Spin Echo (HASTE) ofÂthe Fetal Brain: Application toÂSuper-Resolution Reconstruction. Lecture Notes in Computer Science, 2021, , 157-167.	1.3	0
97	Dataâ€driven myelin water imaging based on T ₁ and T ₂ relaxometry. NMR in Biomedicine, 2021, , e4668.	2.8	0