Brian K Rutt

List of Publications by Year
in descending order

50 papers	3,264 citations	218381 26 h-index	182168 51 g-index
52 all docs	52 docs citations	52 times ranked	4716 citing authors

#	Article	IF	Citations
1	Gleaning multicomponent T₁ and T₂ information from steadyâ€state imaging data. Magnetic Resonance in Medicine, 2008, 60, 1372-1387.	1.9	413
2	High-resolutionT1 andT2 mapping of the brain in a clinically acceptable time with DESPOT1 and DESPOT2. Magnetic Resonance in Medicine, 2005, 53, 237-241.	1.9	407
3	In vivo MRI of cancer cell fate at the single-cell level in a mouse model of breast cancer metastasis to the brain. Magnetic Resonance in Medicine, 2006, 56, 1001-1010.	1.9	286
4	Application of the static dephasing regime theory to superparamagnetic iron-oxide loaded cells. Magnetic Resonance in Medicine, 2002, 48, 52-61.	1.9	221
5	Imaging single mammalian cells with a 1.5 T clinical MRI scanner. Magnetic Resonance in Medicine, 2003, 49, 968-971.	1.9	216
6	Magnetization transfer and multicomponent T2 relaxation measurements with histopathologic correlation in an experimental model of MS. Journal of Magnetic Resonance Imaging, 2000, 11, 586-595.	1.9	190
7	A fast 3D Look-Locker method for volumetric T1 mapping. Magnetic Resonance Imaging, 1999, 17, 1163-1171.	1.0	122
8	Thalamus Optimized Multi Atlas Segmentation (THOMAS): fast, fully automated segmentation of thalamic nuclei from structural MRI. NeuroImage, 2019, 194, 272-282.	2.1	118
9	Activated iron-containing microglia in the human hippocampus identified by magnetic resonance imaging in Alzheimer disease. Neurobiology of Aging, 2015, 36, 2483-2500.	1.5	108
10	Visualization of intra-thalamic nuclei with optimized white-matter-nulled MPRAGE at 7T. NeuroImage, 2014, 84, 534-545.	2.1	105
11	Closing the loop on impulsivity via nucleus accumbens delta-band activity in mice and man. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 192-197.	3.3	80
12	Gradient and shim technologies for ultra high field MRI. NeuroImage, 2018, 168, 59-70.	2.1	75
13	Deficient MWF mapping in multiple sclerosis using 3D whole-brain multi-component relaxation MRI. NeuroImage, 2012, 59, 2670-2677.	2.1	71
14	Design and fabrication of a three-axis edge ROU head and neck gradient coil. Magnetic Resonance in Medicine, 2000, 44, 955-963.	1.9	68
15	Peripheral nerve stimulation properties of head and body gradient coils of various sizes. Magnetic Resonance in Medicine, 2003, 50, 50-58.	1.9	62
16	Individual differences in associative memory among older adults explained by hippocampal subfield structure and function. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12075-12080.	3.3	62
17	Thalamic alterations remote to infarct appear as focal iron accumulation and impact clinical outcome. Brain, 2017, 140, 1932-1946.	3.7	50
18	Hippocampal CA1 subfield predicts episodic memory impairment in Parkinson's disease. NeuroImage: Clinical, 2019, 23, 101824.	1.4	47

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19	Biexponential longitudinal relaxation in white matter: Characterization and impact on T₁ mapping with IRâ€FSE and MP2RAGE. Magnetic Resonance in Medicine, 2016, 75, 2265-2277.	1.9	41
20	Simple linear formulation for magnetostimulation specific to MRI gradient coils. Magnetic Resonance in Medicine, 2001, 45, 916-919.	1.9	38
21	Hippocampal and cortical mechanisms at retrieval explain variability in episodic remembering in older adults. ELife, 2020, 9, .	2.8	38
22	Investigating exchange and multicomponent relaxation in fullyâ€balanced steadyâ€state free precession imaging. Journal of Magnetic Resonance Imaging, 2008, 27, 1421-1429.	1.9	36
23	Optimization of white-matter-nulled magnetization prepared rapid gradient echo (MP-RAGE) imaging. Magnetic Resonance in Medicine, 2015, 73, 1786-1794.	1.9	35
24	Design and fabriacation of a three-axis multilayer gradient coil for magnetic resonance microscopy of mice. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2000, 10, 131-146.	1.1	34
25	In Vivo 7T MR Quantitative Susceptibility Mapping Reveals Opposite Susceptibility Contrast between Cortical and White Matter Lesions in Multiple Sclerosis. American Journal of Neuroradiology, 2016, 37, 1808-1815.	1.2	31
26	On the accurate analysis of vibroacoustics in head insert gradient coils. Magnetic Resonance in Medicine, 2017, 78, 1635-1645.	1.9	25
27	Ultra-high resolution in-vivo 7.0 T structural imaging of the human hippocampus reveals the endfolial pathway. NeuroImage, 2015, 112, 1-6.	2.1	22
28	Improved Vim targeting for focused ultrasound ablation treatment of essential tremor: A probabilistic and patientâ€specific approach. Human Brain Mapping, 2020, 41, 4769-4788.	1.9	22
29	White-matter-nulled MPRAGE at 7T reveals thalamic lesions and atrophy of specific thalamic nuclei in multiple sclerosis. Multiple Sclerosis Journal, 2020, 26, 987-992.	1.4	19
30	Association of CSF Biomarkers With Hippocampal-Dependent Memory in Preclinical Alzheimer Disease. Neurology, 2021, 96, e1470-e1481.	1.5	19
31	In vivo high-resolution structural MRI-based atlas of human thalamic nuclei. Scientific Data, 2021, 8, 275.	2.4	15
32	SMS MUSSELS: A navigatorâ€free reconstruction for simultaneous multiâ€sliceâ€accelerated multiâ€shot diffusion weighted imaging. Magnetic Resonance in Medicine, 2020, 83, 154-169.	1.9	14
33	PKM2 activation sensitizes cancer cells to growth inhibition by 2-deoxy-D-glucose. Oncotarget, 2017, 8, 90959-90968.	0.8	14
34	Direct SAR mapping by thermoacoustic imaging: A feasibility study. Magnetic Resonance in Medicine, 2017, 78, 1599-1606.	1.9	13
35	Characterization of Magneto-Endosymbionts as MRI Cell Labeling and Tracking Agents. Molecular Imaging and Biology, 2018, 20, 65-73.	1.3	13
36	Correlative Microscopy to Localize and Characterize Iron Deposition in Alzheimerâ€™s Disease. Journal of Alzheimer's Disease Reports, 2020, 4, 525-536.	1.2	12

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37	Multi-component relaxation in clinically isolated syndrome: Lesion myelination may predict multiple sclerosis conversion. NeuroImage: Clinical, 2018, 20, 61-70.	1.4	11
38	Effect of radiofrequency shield diameter on signalâ€toâ€noise ratio at ultraâ€high field MRI. Magnetic Resonance in Medicine, 2021, 85, 3522-3530.	1.9	11
39	IMPULSE: A scalable algorithm for design of minimum specific absorption rate parallel transmit RF pulses. Magnetic Resonance in Medicine, 2019, 81, 2808-2822.	1.9	10
40	A Degenerate Birdcage with Integrated Tx/Rx Switches and Butler Matrix for the Human Limbs at 7ÂT. Applied Magnetic Resonance, 2017, 48, 307-326.	0.6	9
41	Minimum electricâ€field gradient coil design: Theoretical limits and practical guidelines. Magnetic Resonance in Medicine, 2021, 86, 569-580.	1.9	9
42	Cell Labeling with Magneto-Endosymbionts and the Dissection of the Subcellular Location, Fate, and Host Cell Interactions. Molecular Imaging and Biology, 2018, 20, 55-64.	1.3	7
43	Automated thalamic nuclei segmentation using multi-planar cascaded convolutional neural networks. Magnetic Resonance Imaging, 2020, 73, 45-54.	1.0	7
44	Flip angle mapping with the accelerated 3D lookâ€locker sequence. Magnetic Resonance in Medicine, 2014, 71, 591-598.	1.9	6
45	Electric field calculation and peripheral nerve stimulation prediction for head and body gradient coils. Magnetic Resonance in Medicine, 2021, 86, 2301-2315.	1.9	6
46	MRI and histopathologic study of a novel cholesterolâ€fed rabbit model of xanthogranuloma. Journal of Magnetic Resonance Imaging, 2016, 44, 673-682.	1.9	5
47	MR susceptibility contrast imaging using a 2D simultaneous multi-slice gradient-echo sequence at 7T. PLoS ONE, 2019, 14, e0219705.	1.1	5
48	Close Association of Myeloperoxidase-Producing Activated Microglia with Amyloid Plaques in Hypercholesterolemic Rabbits. Journal of Alzheimer's Disease, 2019, 67, 1221-1234.	1.2	3
49	Comparison of new element designs for combined <scp>RF</scp>â€shim arrays at 7 T. Concepts in Magnetic Resonance Part B, 2018, 48B, .	0.3	1
50	Comparison between 7 Tesla and 3 Tesla MRI for characterizing orbital lesions. Diagnostic and Interventional Imaging, 2022, 103, 433-439.	1.8	1