

Gunther Helms

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

78
papers

3,647
citations

37
h-index

59
g-index

82
ext. papers

4,325
ext. citations

4.8
avg, IF

5.19
L-index

#	Paper	IF	Citations
78	Regional specificity of MRI contrast parameter changes in normal ageing revealed by voxel-based quantification (VBQ). <i>NeuroImage</i> , 2011 , 55, 1423-34	7.9	204
77	Widespread age-related differences in the human brain microstructure revealed by quantitative magnetic resonance imaging. <i>Neurobiology of Aging</i> , 2014 , 35, 1862-72	5.6	182
76	High-resolution maps of magnetization transfer with inherent correction for RF inhomogeneity and T1 relaxation obtained from 3D FLASH MRI. <i>Magnetic Resonance in Medicine</i> , 2008 , 60, 1396-407	4.4	177
75	Comparison of longitudinal metabolite relaxation times in different regions of the human brain at 1.5 and 3 Tesla. <i>Magnetic Resonance in Medicine</i> , 2003 , 50, 1296-301	4.4	170
74	Improved segmentation of deep brain grey matter structures using magnetization transfer (MT) parameter maps. <i>NeuroImage</i> , 2009 , 47, 194-8	7.9	143
73	Quantitative FLASH MRI at 3T using a rational approximation of the Ernst equation. <i>Magnetic Resonance in Medicine</i> , 2008 , 59, 667-72	4.4	136
72	MR spectroscopy shows reduced frontal lobe concentrations of N-acetyl aspartate in patients with juvenile myoclonic epilepsy. <i>Epilepsia</i> , 2000 , 41, 290-6	6.4	136
71	Unified segmentation based correction of R1 brain maps for RF transmit field inhomogeneities (UNICORT). <i>NeuroImage</i> , 2011 , 54, 2116-24	7.9	121
70	Optimization and validation of methods for mapping of the radiofrequency transmit field at 3T. <i>Magnetic Resonance in Medicine</i> , 2010 , 64, 229-38	4.4	109
69	Individual voxel-based subtype prediction can differentiate progressive supranuclear palsy from idiopathic Parkinson syndrome and healthy controls. <i>Human Brain Mapping</i> , 2011 , 32, 1905-15	5.9	103
68	MRS shows syndrome differentiated metabolite changes in human-generalized epilepsies. <i>NeuroImage</i> , 2004 , 21, 163-72	7.9	99
67	Identification of Scyllo-inositol in proton NMR spectra of human brain in vivo. <i>NMR in Biomedicine</i> , 1993 , 6, 105-9	4.4	84
66	Increased thalamus levels of glutamate and glutamine (Glx) in patients with idiopathic generalised epilepsy. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , 2006 , 77, 489-94	5.5	72
65	Multi-site voxel-based morphometry--not quite there yet. <i>NeuroImage</i> , 2011 , 56, 1164-70	7.9	71
64	Increased SNR and reduced distortions by averaging multiple gradient echo signals in 3D FLASH imaging of the human brain at 3T. <i>Journal of Magnetic Resonance Imaging</i> , 2009 , 29, 198-204	5.6	68
63	A general linear relaxometry model of R1 using imaging data. <i>Magnetic Resonance in Medicine</i> , 2015 , 73, 1309-14	4.4	66
62	New tissue priors for improved automated classification of subcortical brain structures on MRI. <i>NeuroImage</i> , 2016 , 130, 157-166	7.9	65

61	Brain tissue properties differentiate between motor and limbic basal ganglia circuits. <i>Human Brain Mapping</i> , 2014 , 35, 5083-92	5.9	63
60	Differentiation of typical and atypical Parkinson syndromes by quantitative MR imaging. <i>American Journal of Neuroradiology</i> , 2011 , 32, 2087-92	4.4	63
59	Neurobiological origin of spurious brain morphological changes: A quantitative MRI study. <i>Human Brain Mapping</i> , 2016 , 37, 1801-15	5.9	62
58	Reproducibility of the Structural Brain Connectome Derived from Diffusion Tensor Imaging. <i>PLoS ONE</i> , 2015 , 10, e0135247	3.7	59
57	Cerebral involvement in axonal Charcot-Marie-Tooth neuropathy caused by mitofusin2 mutations. <i>Journal of Neurology</i> , 2008 , 255, 1049-58	5.5	58
56	Untreated glioblastoma multiforme: increased myo-inositol and glutamine levels in the contralateral cerebral hemisphere at proton MR spectroscopy. <i>Radiology</i> , 2009 , 253, 805-12	20.5	56
55	Restoration of motion-related signal loss and line-shape deterioration of proton MR spectra using the residual water as intrinsic reference. <i>Magnetic Resonance in Medicine</i> , 2001 , 46, 395-400	4.4	55
54	Structural abnormalities in the thalamus of migraineurs with aura: a multiparametric study at 3 T. <i>Human Brain Mapping</i> , 2014 , 35, 1461-8	5.9	54
53	Volume correction for edema in single-volume proton MR spectroscopy of contrast-enhancing multiple sclerosis lesions. <i>Magnetic Resonance in Medicine</i> , 2001 , 46, 256-63	4.4	54
52	Increased putamen and callosal motor subregion in treatment-naïve boys with Tourette syndrome indicates changes in the bihemispheric motor network. <i>Journal of Child Psychology and Psychiatry and Allied Disciplines</i> , 2011 , 52, 306-14	7.9	51
51	Multiparametric brainstem segmentation using a modified multivariate mixture of Gaussians. <i>NeuroImage: Clinical</i> , 2013 , 2, 684-94	5.3	48
50	Disentangling in vivo the effects of iron content and atrophy on the ageing human brain. <i>NeuroImage</i> , 2014 , 103, 280-289	7.9	47
49	Optimized high-resolution mapping of magnetization transfer (MT) at 3 Tesla for direct visualization of substructures of the human thalamus in clinically feasible measurement time. <i>Journal of Magnetic Resonance Imaging</i> , 2009 , 29, 1285-92	5.6	45
48	The principles of quantification applied to in vivo proton MR spectroscopy. <i>European Journal of Radiology</i> , 2008 , 67, 218-229	4.7	45
47	Improved visibility of the subthalamic nucleus on high-resolution stereotactic MR imaging by added susceptibility (T2*) contrast using multiple gradient echoes. <i>American Journal of Neuroradiology</i> , 2007 , 28, 1093-4	4.4	43
46	Modeling the influence of TR and excitation flip angle on the magnetization transfer ratio (MTR) in human brain obtained from 3D spoiled gradient echo MRI. <i>Magnetic Resonance in Medicine</i> , 2010 , 64, 177-85	4.4	42
45	Diffusion characteristics of large molecules assessed by proton MRS on a whole-body MR system. <i>Magnetic Resonance Imaging</i> , 2004 , 22, 39-46	3.3	40
44	Idiopathic-generalized epilepsy shows profound white matter diffusion-tensor imaging alterations. <i>Human Brain Mapping</i> , 2014 , 35, 3332-42	5.9	39

43	Regression analysis of metabolite concentrations estimated from localized proton MR spectra of active and chronic multiple sclerosis lesions. <i>Magnetic Resonance in Medicine</i> , 2000 , 43, 102-10	4.4	39
42	Rapid radiofrequency field mapping in vivo using single-shot STEAM MRI. <i>Magnetic Resonance in Medicine</i> , 2008 , 60, 739-43	4.4	36
41	Analysis of 1.5 Tesla proton MR spectra of human brain using LCModel and an imported basis set. <i>Magnetic Resonance Imaging</i> , 1999 , 17, 1211-8	3.3	32
40	In vivo quantification of the bound pool T1 in human white matter using the binary spin-bath model of progressive magnetization transfer saturation. <i>Physics in Medicine and Biology</i> , 2009 , 54, N529-40	3.8	31
39	Cerebral metabolic and structural alterations in hereditary spastic paraplegia with thin corpus callosum assessed by MRS and DTI. <i>Neuroradiology</i> , 2006 , 48, 893-8	3.2	31
38	Metabolic alterations in brain autopsies: proton NMR identification of free glycerol. <i>NMR in Biomedicine</i> , 1996 , 9, 121-4	4.4	29
37	No brain structure abnormalities in boys with Tourette's syndrome: a voxel-based morphometry study. <i>Movement Disorders</i> , 2009 , 24, 2398-403	7	27
36	Noninvasive estimation of tumour viability in a xenograft model of human neuroblastoma with proton magnetic resonance spectroscopy (1H MRS). <i>British Journal of Cancer</i> , 2003 , 88, 478-85	8.7	25
35	Identification of signal bias in the variable flip angle method by linear display of the algebraic Ernst equation. <i>Magnetic Resonance in Medicine</i> , 2011 , 66, 669-77	4.4	24
34	Localized proton magnetic resonance spectroscopy of cerebral abnormalities in children with carbohydrate-deficient glycoprotein syndrome. <i>Acta Paediatrica, International Journal of Paediatrics</i> , 1995 , 84, 781-6	3.1	23
33	Investigation and modeling of magnetization transfer effects in two-dimensional multislice turbo spin echo sequences with low constant or variable flip angles at 3 T. <i>Magnetic Resonance in Medicine</i> , 2010 , 63, 230-4	4.4	22
32	Increased growth of colorectal liver metastasis following partial hepatectomy. <i>Clinical and Experimental Metastasis</i> , 2013 , 30, 681-93	4.7	19
31	Segmentation of human brain using structural MRI. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2016 , 29, 111-24	2.8	18
30	Micro-structural brain alterations in aviremic HIV+ patients with minor neurocognitive disorders: a multi-contrast study at high field. <i>PLoS ONE</i> , 2013 , 8, e72547	3.7	18
29	Serial proton MR spectroscopy and diffusion tensor imaging in infantile Baló's concentric sclerosis. <i>Neuroradiology</i> , 2009 , 51, 113-21	3.2	18
28	Contrast-driven approach to intracranial segmentation using a combination of T2- and T1-weighted 3D MRI data sets. <i>Journal of Magnetic Resonance Imaging</i> , 2006 , 24, 790-5	5.6	17
27	Assessment of myelination in hypomyelinating disorders by quantitative MRI. <i>Journal of Magnetic Resonance Imaging</i> , 2012 , 36, 1329-38	5.6	15
26	Simultaneous measurement of saturation and relaxation in human brain by repetitive magnetization transfer pulses. <i>NMR in Biomedicine</i> , 2005 , 18, 44-50	4.4	15

25	Multiparameter mapping of relaxation (R1, R2*), proton density and magnetization transfer saturation at 3 T: A multicenter dual-vendor reproducibility and repeatability study. <i>Human Brain Mapping</i> , 2020 , 41, 4232-4247	5.9	15
24	Structural and quantitative neuroimaging of the common marmoset monkey using a clinical MRI system. <i>Journal of Neuroscience Methods</i> , 2013 , 215, 121-31	3	14
23	Basal cerebral blood volume during the poststimulation undershoot in BOLD MRI of the human brain. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2011 , 31, 82-9	7.3	14
22	A New Targeted Model of Experimental Autoimmune Encephalomyelitis in the Common Marmoset. <i>Brain Pathology</i> , 2016 , 26, 452-64	6	14
21	Exact algebraization of the signal equation of spoiled gradient echo MRI. <i>Physics in Medicine and Biology</i> , 2010 , 55, 4231-45	3.8	13
20	In vivo proton MR spectroscopy findings specific for adenylosuccinate lyase deficiency. <i>NMR in Biomedicine</i> , 2010 , 23, 441-5	4.4	13
19	Pulsed saturation of the standard two-pool model for magnetization transfer. Part I: The steady state. <i>Concepts in Magnetic Resonance</i> , 2004 , 21A, 37-49		13
18	T2-based segmentation of periventricular paragraph sign volumes for quantification of proton magnetic paragraph sign resonance spectra of multiple sclerosis lesions. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2003 , 16, 10-6	2.8	11
17	Magnetization transfer of water T(2) relaxation components in human brain: implications for T(2)-based segmentation of spectroscopic volumes. <i>Magnetic Resonance Imaging</i> , 2001 , 19, 803-11	3.3	11
16	A Novel SLC6A8 Mutation in a Large Family with X-Linked Intellectual Disability: Clinical and Proton Magnetic Resonance Spectroscopy Data of Both Hemizygous Males and Heterozygous Females. <i>JIMD Reports</i> , 2014 , 13, 91-9	1.9	8
15	Pulsed saturation of the standard two-pool model for magnetization transfer. Part II: The transition to steady state. <i>Concepts in Magnetic Resonance</i> , 2004 , 21A, 50-62		8
14	Visualizing dopamine transporter integrity with iodine-123-FP-CIT SPECT in combination with high resolution MRI in the brain of the common marmoset monkey. <i>Journal of Neuroscience Methods</i> , 2012 , 210, 195-201	3	7
13	Interaction of exchange and differential relaxation in the saturation recovery behavior of the binary spin-bath model for magnetization transfer. <i>Concepts in Magnetic Resonance Part A: Bridging Education and Research</i> , 2006 , 28A, 291-298	0.6	7
12	Quantitative magnetization transfer by trains of radio frequency pulses in human brain: extension of a free evolution model to continuous-wave-like conditions. <i>Magnetic Resonance Imaging</i> , 2005 , 23, 723-31	3.3	7
11	Reducing bias in dual flip angle T -mapping in human brain at 7T. <i>Magnetic Resonance in Medicine</i> , 2020 , 84, 1347-1358	4.4	6
10	Viewing the effective k-space coverage of MR images: phantom experiments with fast Fourier transform. <i>Magnetic Resonance Imaging</i> , 2010 , 28, 87-94	3.3	6
9	Quantification of magnetization transfer by sampling the transient signal using MT-prepared single-shot EPI. <i>Concepts in Magnetic Resonance</i> , 2003 , 19A, 149-152		6
8	Localized proton magnetic resonance spectroscopy of a cerebellar tumor in a two-year-old child. <i>Childs Nervous System</i> , 1996 , 12, 626-9	1.7	6

7	Non-negative least squares computation for in vivo myelin mapping using simulated multi-echo spin-echo T decay data. <i>NMR in Biomedicine</i> , 2020 , 33, e4277	4.4	5
6	Pharmacokinetics of the MRI contrast agent gadobutrol in common marmoset monkeys (<i>Callithrix jacchus</i>). <i>Journal of Medical Primatology</i> , 2016 , 45, 290-296	0.7	3
5	Revisiting a historic human brain with magnetic resonance imaging - the first description of a divided central sulcus. <i>Frontiers in Neuroanatomy</i> , 2014 , 8, 35	3.6	2
4	In vivo investigation of the multi-exponential T decay in human white matter at 7 T: Implications for myelin water imaging at UHF. <i>NMR in Biomedicine</i> , 2021 , 34, e4429	4.4	1
3	Towards robust glucose chemical exchange saturation transfer imaging in humans at 3T: Arterial input function measurements and the effects of infusion time. <i>NMR in Biomedicine</i> , 2021 , e4624	4.4	1
2	Mapping magnetization transfer saturation (MT) in human brain at 7T: Protocol optimization under specific absorption rate constraints. <i>Magnetic Resonance in Medicine</i> , 2021 , 86, 2562-2576	4.4	0
1	Radiofrequency Bias Correction of Magnetization Prepared Rapid Gradient Echo MRI at 7.0 Tesla Using an External Reference in a Sequential Protocol. <i>Tomography</i> , 2021 , 7, 434-451	3.1	