Gunther Helms

List of Publications by Year
in descending order

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79 papers	4,572 citations	87888 38 h-index	110387 64 g-index
82 all docs	82 docs citations	82 times ranked	6108 citing authors

#	Article	IF	Citations
1	Towards robust glucose chemical exchange saturation transfer imaging in humans at 3ÂT: Arterial input function measurements and the effects of infusion time. NMR in Biomedicine, 2022, 35, e4624.	2.8	7
2	MP3RAGE: Simultaneous mapping of T₁ and B1+ in human brain at 7T. Magnetic Resonance in Medicine, 2022, 87, 2637-2649.	3.0	3
3	In vivo investigation of the multiâ€exponential T 2 decay in human white matter at 7 T: Implications for myelin water imaging at UHF. NMR in Biomedicine, 2021, 34, e4429.	2.8	3
4	Mapping magnetization transfer saturation (MT_{sat}) in human brain at 7T: Protocol optimization under specific absorption rate constraints. Magnetic Resonance in Medicine, 2021, 86, 2562-2576.	3.0	5
5	Radiofrequency Bias Correction of Magnetization Prepared Rapid Gradient Echo MRI at 7.0 Tesla Using an External Reference in a Sequential Protocol. Tomography, 2021, 7, 434-451.	1.8	0
6	Multiparameter mapping of relaxation (<scp>R1</scp>, <scp>R2</scp>*), proton density and magnetization transfer saturation at <scp>3 T</scp>: A multicenter dualâ€vendor reproducibility and repeatability study. Human Brain Mapping, 2020, 41, 4232-4247.	3.6	59
7	Nonâ€negative least squares computation for in vivo myelin mapping using simulated multiâ€echo spinâ€echo T₂ decay data. NMR in Biomedicine, 2020, 33, e4277.	2.8	20
8	Reducing bias in dual flip angle T₁â€mapping in human brain at 7T. Magnetic Resonance in Medicine, 2020, 84, 1347-1358.	3.0	13
9	A New Targeted Model of Experimental Autoimmune Encephalomyelitis in the Common Marmoset. Brain Pathology, 2016, 26, 452-464.	4.1	18
10	Pharmacokinetics of the MRI contrast agent gadobutrol in common marmoset monkeys (Callithrix) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.6	3
11	Neurobiological origin of spurious brain morphological changes: A quantitative MRI study. Human Brain Mapping, 2016, 37, 1801-1815.	3.6	87
12	New tissue priors for improved automated classification of subcortical brain structures on MRI. NeuroImage, 2016, 130, 157-166.	4.2	104
13	Segmentation of human brain using structural MRI. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2016, 29, 111-124.	2.0	27
14	A general linear relaxometry model of R₁ using imaging data. Magnetic Resonance in Medicine, 2015, 73, 1309-1314.	3.0	90
15	Reproducibility of the Structural Brain Connectome Derived from Diffusion Tensor Imaging. PLoS ONE, 2015, 10, e0135247.	2.5	89
16	Revisiting a historic human brain with magnetic resonance imaging Ã¢â‚¬â€œ the first description of a divided central sulcus. Frontiers in Neuroanatomy, 2014, 8, 35.	1.7	2
17	Disentangling in vivo the effects of iron content and atrophy on the ageing human brain. NeuroImage, 2014, 103, 280-289.	4.2	68
18	Brain tissue properties differentiate between motor and limbic basal ganglia circuits. Human Brain Mapping, 2014, 35, 5083-5092.	3.6	82

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19	Structural abnormalities in the thalamus of migraineurs with aura: A multiparametric study at 3 T. Human Brain Mapping, 2014, 35, 1461-1468.	3.6	72
20	Widespread age-related differences in the human brain microstructure revealed by quantitative magnetic resonance imaging. Neurobiology of Aging, 2014, 35, 1862-1872.	3.1	248
21	Idiopathic-generalized epilepsy shows profound white matter diffusion-tensor imaging alterations. Human Brain Mapping, 2014, 35, 3332-3342.	3.6	60
22	Increased growth of colorectal liver metastasis following partial hepatectomy. Clinical and Experimental Metastasis, 2013, 30, 681-693.	3.3	27
23	Structural and quantitative neuroimaging of the common marmoset monkey using a clinical MRI system. Journal of Neuroscience Methods, 2013, 215, 121-131.	2.5	16
24	Multiparametric brainstem segmentation using a modified multivariate mixture of Gaussians. NeuroImage: Clinical, 2013, 2, 684-694.	2.7	58
25	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. JIMD Reports, 2013, 13, 91-99.	1.5	10
26	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
27	Visualizing dopamine transporter integrity with iodine-123-FP-CIT SPECT in combination with high resolution MRI in the brain of the common marmoset monkey. Journal of Neuroscience Methods, 2012, 210, 195-201.	2.5	8
28	Assessment of myelination in hypomyelinating disorders by quantitative MRI. Journal of Magnetic Resonance Imaging, 2012, 36, 1329-1338.	3.4	21
29	Regional specificity of MRI contrast parameter changes in normal ageing revealed by voxel-based quantification (VBQ). NeuroImage, 2011, 55, 1423-1434.	4.2	259
30	Multi-site voxel-based morphometry â€" Not quite there yet. NeuroImage, 2011, 56, 1164-1170.	4.2	94
31	Unified segmentation based correction of R1 brain maps for RF transmit field inhomogeneities (UNICORT). NeuroImage, 2011, 54, 2116-2124.	4.2	168
32	Increased putamen and callosal motor subregion in treatment-naÃ¯ve boys with Tourette syndrome indicates changes in the bihemispheric motor network. Journal of Child Psychology and Psychiatry and Allied Disciplines, 2011, 52, 306-314.	5.2	59
33	Basal Cerebral Blood Volume during the Poststimulation Undershoot in BOLD MRI of the Human Brain. Journal of Cerebral Blood Flow and Metabolism, 2011, 31, 82-89.	4.3	14
34	Identification of signal bias in the variable flip angle method by linear display of the algebraic ernst equation. Magnetic Resonance in Medicine, 2011, 66, 669-677.	3.0	31
35	Individual voxelâ€based subtype prediction can differentiate progressive supranuclear palsy from idiopathic parkinson syndrome and healthy controls. Human Brain Mapping, 2011, 32, 1905-1915.	3.6	122
36	Differentiation of Typical and Atypical Parkinson Syndromes by Quantitative MR Imaging. American Journal of Neuroradiology, 2011, 32, 2087-2092.	2.4	78

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37	Investigation and modeling of magnetization transfer effects in twoâ€dimensional multislice turbo spin echo sequences with low constant or variable flip angles at 3 T. Magnetic Resonance in Medicine, 2010, 63, 230-234.	3.0	26
38	In vivo proton MR spectroscopy findings specific for adenylosuccinate lyase deficiency. NMR in Biomedicine, 2010, 23, 441-445.	2.8	16
39	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. Magnetic Resonance in Medicine, 2010, 64, 177-185.	3.0	62
40	Optimization and validation of methods for mapping of the radiofrequency transmit field at 3T. Magnetic Resonance in Medicine, 2010, 64, 229-238.	3.0	159
41	Viewing the effective k-space coverage of MR images: phantom experiments with fast Fourier transform. Magnetic Resonance Imaging, 2010, 28, 87-94.	1.8	7
42	Exact algebraization of the signal equation of spoiled gradient echo MRI. Physics in Medicine and Biology, 2010, 55, 4231-4245.	3.0	23
43	In vivoquantification of the bound poolT₁in human white matter using the binary spinâ€“bath model of progressive magnetization transfer saturation. Physics in Medicine and Biology, 2009, 54, N529-N540.	3.0	41
44	Untreated Glioblastoma Multiforme: IncreasedMyo-inositol and Glutamine Levels in the Contralateral Cerebral Hemisphere at Proton MR Spectroscopy. Radiology, 2009, 253, 805-812.	7.3	68
45	Increased SNR and reduced distortions by averaging multiple gradient echo signals in 3D FLASH imaging of the human brain at 3T. Journal of Magnetic Resonance Imaging, 2009, 29, 198-204.	3.4	81
46	Optimized highâ€resolution mapping of magnetization transfer (MT) at 3 Tesla for direct visualization of substructures of the human thalamus in clinically feasible measurement time. Journal of Magnetic Resonance Imaging, 2009, 29, 1285-1292.	3.4	49
47	No brain structure abnormalities in boys with Tourette's syndrome: A voxelâ€based morphometry study. Movement Disorders, 2009, 24, 2398-2403.	3.9	31
48	Serial proton MR spectroscopy and diffusion tensor imaging in infantile Baloâ€™s concentric sclerosis. Neuroradiology, 2009, 51, 113-121.	2.2	19
49	Improved segmentation of deep brain grey matter structures using magnetization transfer (MT) parameter maps. NeuroImage, 2009, 47, 194-198.	4.2	164
50	Cerebral involvement in axonal Charcot-Marie-Tooth neuropathy caused by mitofusin2 mutations. Journal of Neurology, 2008, 255, 1049-58.	3.6	66
51	Quantitative FLASH MRI at 3T using a rational approximation of the Ernst equation. Magnetic Resonance in Medicine, 2008, 59, 667-672.	3.0	197
52	Rapid radiofrequency field mapping in vivo using singleâ€shot STEAM MRI. Magnetic Resonance in Medicine, 2008, 60, 739-743.	3.0	38
53	Highâ€resolution maps of magnetization transfer with inherent correction for RF inhomogeneity and T₁ relaxation obtained from 3D FLASH MRI. Magnetic Resonance in Medicine, 2008, 60, 1396-1407.	3.0	267
54	The principles of quantification applied to in vivo proton MR spectroscopy. European Journal of Radiology, 2008, 67, 218-229.	2.6	51

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55	Improved Visibility of the Subthalamic Nucleus on High-Resolution Stereotactic MR Imaging by Added Susceptibility (T2*) Contrast Using Multiple Gradient Echoes. American Journal of Neuroradiology, 2007, 28, 1093-1094.	2.4	43
56	Increased thalamus levels of glutamate and glutamine (Glx) in patients with idiopathic generalised epilepsy. Journal of Neurology, Neurosurgery and Psychiatry, 2006, 77, 489-494.	1.9	80
57	Cerebral metabolic and structural alterations in hereditary spastic paraplegia with thin corpus callosum assessed by MRS and DTI. Neuroradiology, 2006, 48, 893-898.	2.2	35
58	Interaction of exchange and differential relaxation in the saturation recovery behavior of the binary spin-bath model for magnetization transfer. Concepts in Magnetic Resonance Part A: Bridging Education and Research, 2006, 28A, 291-298.	0.5	8
59	Contrast-driven approach to intracranial segmentation using a combination of T2- and T1-weighted 3D MRI data sets. Journal of Magnetic Resonance Imaging, 2006, 24, 790-795.	3.4	25
60	Simultaneous measurement of saturation and relaxation in human brain by repetitive magnetization transfer pulses. NMR in Biomedicine, 2005, 18, 44-50.	2.8	18
61	Quantitative magnetization transfer by trains of radio frequency pulses in human brain: extension of a free evolution model to continuous-wave-like conditions. Magnetic Resonance Imaging, 2005, 23, 723-731.	1.8	8
62	Diffusion characteristics of large molecules assessed by proton MRS on a whole-body MR system. Magnetic Resonance Imaging, 2004, 22, 39-46.	1.8	43
63	Pulsed saturation of the standard two-pool model for magnetization transfer. Part I: The steady state. Concepts in Magnetic Resonance, 2004, 21A, 37-49.	1.3	15
64	Pulsed saturation of the standard two-pool model for magnetization transfer. Part II: The transition to steady state. Concepts in Magnetic Resonance, 2004, 21A, 50-62.	1.3	9
65	MRS shows syndrome differentiated metabolite changes in human-generalized epilepsies. NeuroImage, 2004, 21, 163-172.	4.2	110
66	T2-based segmentation of periventricular volumes for quantification of proton magnetic resonance spectra of multiple sclerosis lesions. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2003, 16, 10-16.	2.0	11
67	Quantification of magnetization transfer by sampling the transient signal using MT-prepared single-shot EPI. Concepts in Magnetic Resonance, 2003, 19A, 149-152.	1.3	6
68	Comparison of longitudinal metabolite relaxation times in different regions of the human brain at 1.5 and 3 Tesla. Magnetic Resonance in Medicine, 2003, 50, 1296-1301.	3.0	194
69	Noninvasive estimation of tumour viability in a xenograft model of human neuroblastoma with proton magnetic resonance spectroscopy (1H MRS). British Journal of Cancer, 2003, 88, 478-485.	6.4	31
70	Magnetization transfer of water T 2 relaxation components in human brain: implications for T 2 -based segmentation of spectroscopic volumes. Magnetic Resonance Imaging, 2001, 19, 803-811.	1.8	12
71	Volume correction for edema in single-volume proton MR spectroscopy of contrast-enhancing multiple sclerosis lesions. Magnetic Resonance in Medicine, 2001, 46, 256-263.	3.0	63
72	Restoration of motion-related signal loss and line-shape deterioration of proton MR spectra using the residual water as intrinsic reference. Magnetic Resonance in Medicine, 2001, 46, 395-400.	3.0	62

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73	Regression analysis of metabolite concentrations estimated from localized proton MR spectra of active and chronic multiple sclerosis lesions. Magnetic Resonance in Medicine, 2000, 43, 102-110.	3.0	43
74	MR Spectroscopy Shows Reduced Frontal Lobe Concentrations of N-Acetyl Aspartate in Patients with Juvenile Myoclonic Epilepsy. Epilepsia, 2000, 41, 290-296.	5.1	149
75	Analysis of 1.5 Tesla proton MR spectra of human brain using LCModel and an imported basis set. Magnetic Resonance Imaging, 1999, 17, 1211-1218.	1.8	35
76	Metabolic Alterations in Brain Autopsies: Proton NMR Identification of Free Glycerol. , 1996, 9, 121-124.		32
77	Localized proton magnetic resonance spectroscopy of a cerebellar tumor in a two-year-old child. Child's Nervous System, 1996, 12, 626-9.	1.1	6
78	Localized proton magnetic resonance spectroscopy of cerebral abnormalities in children with carbohydrateâ€deficient glycoprotein syndrome. Acta Paediatrica, International Journal of Paediatrics, 1995, 84, 781-786.	1.5	24
79	Identification ofscyllo-inositol in proton NMR spectra of human brainin vivo. NMR in Biomedicine, 1993, 6, 105-109.	2.8	90