

# Alex Rauscher

## List of Publications by Citations

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118  
papers

3,200  
citations

31  
h-index

53  
g-index

129  
ext. papers

3,862  
ext. citations

5.3  
avg, IF

5.15  
L-index

#	Paper	IF	Citations
118	Magnetic susceptibility-weighted MR phase imaging of the human brain. <i>American Journal of Neuroradiology</i> , <b>2005</b> , 26, 736-42	4.4	177
117	The central vein sign and its clinical evaluation for the diagnosis of multiple sclerosis: a consensus statement from the North American Imaging in Multiple Sclerosis Cooperative. <i>Nature Reviews Neurology</i> , <b>2016</b> , 12, 714-722	15	172
116	Rapid whole cerebrum myelin water imaging using a 3D GRASE sequence. <i>NeuroImage</i> , <b>2012</b> , 63, 533-9	7.9	168
115	Susceptibility weighted imaging at ultra high magnetic field strengths: theoretical considerations and experimental results. <i>Magnetic Resonance in Medicine</i> , <b>2008</b> , 60, 1155-68	4.4	130
114	Noninvasive assessment of vascular architecture and function during modulated blood oxygenation using susceptibility weighted magnetic resonance imaging. <i>Magnetic Resonance in Medicine</i> , <b>2005</b> , 54, 87-95	4.4	118
113	Optimized 3 T EPI of the amygdalae. <i>NeuroImage</i> , <b>2004</b> , 22, 203-10	7.9	112
112	The influence of white matter fibre orientation on MR signal phase and decay. <i>NMR in Biomedicine</i> , <b>2011</b> , 24, 246-52	4.4	103
111	Susceptibility weighted imaging with multiple echoes. <i>Journal of Magnetic Resonance Imaging</i> , <b>2010</b> , 31, 185-91	5.6	101
110	Quantitative susceptibility mapping: Report from the 2016 reconstruction challenge. <i>Magnetic Resonance in Medicine</i> , <b>2018</b> , 79, 1661-1673	4.4	95
109	Automated unwrapping of MR phase images applied to BOLD MR-venography at 3 Tesla. <i>Journal of Magnetic Resonance Imaging</i> , <b>2003</b> , 18, 175-80	5.6	89
108	Phase unwrapping of MR images using Phi UN--a fast and robust region growing algorithm. <i>Medical Image Analysis</i> , <b>2009</b> , 13, 257-68	15.4	76
107	MR relaxation in multiple sclerosis. <i>Neuroimaging Clinics of North America</i> , <b>2009</b> , 19, 1-26	3	71
106	Prevalence of extracranial venous narrowing on catheter venography in people with multiple sclerosis, their siblings, and unrelated healthy controls: a blinded, case-control study. <i>Lancet, The</i> , <b>2014</b> , 383, 138-45	40	70
105	Myelin Water Fraction Is Transiently Reduced after a Single Mild Traumatic Brain Injury--A Prospective Cohort Study in Collegiate Hockey Players. <i>PLoS ONE</i> , <b>2016</b> , 11, e0150215	3.7	64
104	ToF-SWI: simultaneous time of flight and fully flow compensated susceptibility weighted imaging. <i>Journal of Magnetic Resonance Imaging</i> , <b>2009</b> , 29, 1478-84	5.6	62
103	Localization of the subthalamic nucleus: optimization with susceptibility-weighted phase MR imaging. <i>American Journal of Neuroradiology</i> , <b>2009</b> , 30, 1717-24	4.4	60
102	Obtaining blood oxygenation levels from MR signal behavior in the presence of single venous vessels. <i>Magnetic Resonance in Medicine</i> , <b>2007</b> , 58, 1035-44	4.4	58

101	Evaluation of white matter myelin water fraction in chronic stroke. <i>NeuroImage: Clinical</i> , <b>2013</b> , 2, 569-80	5.3	55
100	Investigation of the influence of carbon dioxide concentrations on cerebral physiology by susceptibility-weighted magnetic resonance imaging (SWI). <i>NeuroImage</i> , <b>2008</b> , 43, 36-43	7.9	52
99	Magnetic resonance frequency shifts during acute MS lesion formation. <i>Neurology</i> , <b>2013</b> , 81, 211-8	6.5	50
98	Robust field map generation using a triple-echo acquisition. <i>Journal of Magnetic Resonance Imaging</i> , <b>2004</b> , 20, 730-4	5.6	50
97	Motor Skill Acquisition Promotes Human Brain Myelin Plasticity. <i>Neural Plasticity</i> , <b>2016</b> , 2016, 7526135	3.3	50
96	Deep learning of joint myelin and T1w MRI features in normal-appearing brain tissue to distinguish between multiple sclerosis patients and healthy controls. <i>NeuroImage: Clinical</i> , <b>2018</b> , 17, 169-178	5.3	46
95	Demonstration of paramagnetic and diamagnetic cerebral lesions by using susceptibility weighted phase imaging (SWI). <i>Zeitschrift Fur Medizinische Physik</i> , <b>2006</b> , 16, 261-7	7.6	44
94	Contrast-enhanced, high-resolution, susceptibility-weighted magnetic resonance imaging of the brain: dose-dependent optimization at 3 tesla and 1.5 tesla in healthy volunteers. <i>Investigative Radiology</i> , <b>2006</b> , 41, 249-55	10.1	39
93	Investigations on the effect of caffeine on cerebral venous vessel contrast by using susceptibility-weighted imaging (SWI) at 1.5, 3 and 7 T. <i>NeuroImage</i> , <b>2008</b> , 40, 11-8	7.9	38
92	Susceptibility weighted imaging: data acquisition, image reconstruction and clinical applications. <i>Zeitschrift Fur Medizinische Physik</i> , <b>2006</b> , 16, 240-50	7.6	37
91	Prevalence of Brain Microbleeds in Alzheimer Disease: A Systematic Review and Meta-Analysis on the Influence of Neuroimaging Techniques. <i>American Journal of Neuroradiology</i> , <b>2016</b> , 37, 215-22	4.4	35
90	Improved elimination of phase effects from background field inhomogeneities for susceptibility weighted imaging at high magnetic field strengths. <i>Magnetic Resonance Imaging</i> , <b>2008</b> , 26, 1145-51	3.3	35
89	A Prospective Pilot Investigation of Brain Volume, White Matter Hyperintensities, and Hemorrhagic Lesions after Mild Traumatic Brain Injury. <i>Frontiers in Neurology</i> , <b>2016</b> , 7, 11	4.1	33
88	Quantitative neuroimaging measures of myelin in the healthy brain and in multiple sclerosis. <i>Human Brain Mapping</i> , <b>2019</b> , 40, 2104-2116	5.9	33
87	The influence of brain iron on myelin water imaging. <i>NeuroImage</i> , <b>2019</b> , 199, 545-552	7.9	31
86	High resolution susceptibility weighted MR-imaging of brain tumors during the application of a gaseous agent. <i>RoFo Fortschritte Auf Dem Gebiet Der Rontgenstrahlen Und Der Bildgebenden Verfahren</i> , <b>2005</b> , 177, 1065-9	2.3	31
85	Quantifying visual pathway axonal and myelin loss in multiple sclerosis and neuromyelitis optica. <i>NeuroImage: Clinical</i> , <b>2016</b> , 11, 743-750	5.3	31
84	What Have We Learned From Perfusion MRI in Multiple Sclerosis?. <i>American Journal of Neuroradiology</i> , <b>2018</b> , 39, 994-1000	4.4	29

83	FLAIR2: A Combination of FLAIR and T2 for Improved MS Lesion Detection. <i>American Journal of Neuroradiology</i> , <b>2016</b> , 37, 259-65	4.4	27
82	Susceptibility-sensitive MRI of multiple sclerosis lesions and the impact of normal-appearing white matter changes. <i>NMR in Biomedicine</i> , <b>2017</b> , 30, e3727	4.4	25
81	Imaging outcome measures of neuroprotection and repair in MS: A consensus statement from NAIMS. <i>Neurology</i> , <b>2019</b> , 92, 519-533	6.5	25
80	Increased spinal cord movements in cervical spondylotic myelopathy. <i>Spine Journal</i> , <b>2014</b> , 14, 2344-54	4	24
79	Global loss of myelin water over 5 years in multiple sclerosis normal-appearing white matter. <i>Multiple Sclerosis Journal</i> , <b>2018</b> , 24, 1557-1568	5	24
78	Anisotropic cerebral vascular architecture causes orientation dependency in cerebral blood flow and volume measured with dynamic susceptibility contrast magnetic resonance imaging. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2017</b> , 37, 1108-1119	7.3	22
77	Orientation Dependent MR Signal Decay Differentiates between People with MS, Their Asymptomatic Siblings and Unrelated Healthy Controls. <i>PLoS ONE</i> , <b>2015</b> , 10, e0140956	3.7	22
76	Mortality from treatable illnesses in marginally housed adults: a prospective cohort study. <i>BMJ Open</i> , <b>2015</b> , 5, e008876	3	22
75	The Hotel Study-Clinical and Health Service Effectiveness in a Cohort of Homeless or Marginally Housed Persons. <i>Canadian Journal of Psychiatry</i> , <b>2017</b> , 62, 482-492	4.8	20
74	A prospective study of the influence of acute alcohol intoxication versus chronic alcohol consumption on outcome following traumatic brain injury. <i>Archives of Clinical Neuropsychology</i> , <b>2014</b> , 29, 478-95	2.7	20
73	Rapid solution of the Bloch-Torrey equation in anisotropic tissue: Application to dynamic susceptibility contrast MRI of cerebral white matter. <i>NeuroImage</i> , <b>2019</b> , 185, 198-207	7.9	20
72	Rapid myelin water imaging in human cervical spinal cord. <i>Magnetic Resonance in Medicine</i> , <b>2017</b> , 78, 1482-1487	4.4	18
71	To exclude or not to exclude: further examination of the influence of white matter hyperintensities in diffusion tensor imaging research. <i>Journal of Neurotrauma</i> , <b>2014</b> , 31, 198-205	5.4	17
70	Rapid two-step dipole inversion for susceptibility mapping with sparsity priors. <i>NeuroImage</i> , <b>2018</b> , 167, 276-283	7.9	17
69	Myelin Water Atlas: A Template for Myelin Distribution in the Brain. <i>Journal of Neuroimaging</i> , <b>2019</b> , 29, 699-706	2.8	16
68	Quantification of modulated blood oxygenation levels in single cerebral veins by investigating their MR signal decay. <i>Zeitschrift Fur Medizinische Physik</i> , <b>2009</b> , 19, 48-57	7.6	16
67	Increased mean R2* in the deep gray matter of multiple sclerosis patients: Have we been measuring atrophy?. <i>Journal of Magnetic Resonance Imaging</i> , <b>2019</b> , 50, 201-208	5.6	16
66	Inter-Vendor Reproducibility of Myelin Water Imaging Using a 3D Gradient and Spin Echo Sequence. <i>Frontiers in Neuroscience</i> , <b>2018</b> , 12, 854	5.1	16

65	Hippocampal volume and vasculature before and after exercise in treatment-resistant schizophrenia. <i>Schizophrenia Research</i> , <b>2018</b> , 202, 158-165	3.6	16
64	Multi-spin echo T relaxation imaging with compressed sensing (METRICS) for rapid myelin water imaging. <i>Magnetic Resonance in Medicine</i> , <b>2020</b> , 84, 1264-1279	4.4	15
63	Corticospinal tract integrity measured using transcranial magnetic stimulation and magnetic resonance imaging in neuromyelitis optica and multiple sclerosis. <i>Multiple Sclerosis Journal</i> , <b>2016</b> , 22, 43-50	5	14
62	Rapid myelin water imaging for the assessment of cervical spinal cord myelin damage. <i>NeuroImage: Clinical</i> , <b>2019</b> , 23, 101896	5.3	14
61	Traumatic Brain Injury in a Community-Based Cohort of Homeless and Vulnerably Housed Individuals. <i>Journal of Neurotrauma</i> , <b>2017</b> , 34, 3301-3310	5.4	14
60	Reduced Myelin Water in the White Matter Tracts of Patients with Niemann-Pick Disease Type C. <i>American Journal of Neuroradiology</i> , <b>2016</b> , 37, 1487-9	4.4	14
59	Myelin water imaging depends on white matter fiber orientation in the human brain. <i>Magnetic Resonance in Medicine</i> , <b>2021</b> , 85, 2221-2231	4.4	14
58	Differences in White Matter Microstructure Among Children With Developmental Coordination Disorder. <i>JAMA Network Open</i> , <b>2020</b> , 3, e201184	10.4	13
57	Structural brain markers are differentially associated with neurocognitive profiles in socially marginalized people with multimorbid illness. <i>Neuropsychology</i> , <b>2017</b> , 31, 28-43	3.8	12
56	Associations of substance use, psychosis, and mortality among people living in precarious housing or homelessness: A longitudinal, community-based study in Vancouver, Canada. <i>PLoS Medicine</i> , <b>2020</b> , 17, e1003172	11.6	11
55	Clinical and functional characteristics of young adults living in single room occupancy housing: preliminary findings from a 10-year longitudinal study. <i>Canadian Journal of Public Health</i> , <b>2018</b> , 109, 204-214	3.2	11
54	The role of iron and myelin in orientation dependent R of white matter. <i>NMR in Biomedicine</i> , <b>2019</b> , 32, e4092	4.4	10
53	Characterization of white matter integrity deficits in cocaine-dependent individuals with substance-induced psychosis compared with non-psychotic cocaine users. <i>Addiction Biology</i> , <b>2017</b> , 22, 873-881	4.6	9
52	Microbleeds in Alzheimer's Disease: A Neuropsychological Overview and Meta-Analysis. <i>Canadian Journal of Neurological Sciences</i> , <b>2016</b> , 43, 753-759	1	9
51	Changes in cerebral vascular reactivity and structure following prolonged exposure to high altitude in humans. <i>Physiological Reports</i> , <b>2015</b> , 3, e12647	2.6	9
50	Informatics in Radiology: GUIBOLD: a graphical user interface for image reconstruction and data analysis in susceptibility-weighted MR imaging. <i>Radiographics</i> , <b>2008</b> , 28, 639-51	5.4	9
49	Myelin Damage in Normal Appearing White Matter Contributes to Impaired Cognitive Processing Speed in Multiple Sclerosis. <i>Journal of Neuroimaging</i> , <b>2020</b> , 30, 205-211	2.8	9
48	Subcortical grey matter alterations in cocaine dependent individuals with substance-induced psychosis compared to non-psychotic cocaine users. <i>Schizophrenia Research</i> , <b>2016</b> , 176, 158-163	3.6	9

47	In vivo phase imaging of human epiphyseal cartilage at 7 T. <i>Magnetic Resonance in Medicine</i> , <b>2018</b> , 79, 2149-2155	4.4	9
46	Pathological Insights From Quantitative Susceptibility Mapping and Diffusion Tensor Imaging in Ice Hockey Players Pre and Post-concussion. <i>Frontiers in Neurology</i> , <b>2018</b> , 9, 575	4.1	9
45	Bilateral filtering of magnetic resonance phase images. <i>Magnetic Resonance Imaging</i> , <b>2011</b> , 29, 1023-9	3.3	8
44	Volumes of the Hippocampal Formation Differentiate Component Processes of Memory in a Community Sample of Homeless and Marginally Housed Persons. <i>Archives of Clinical Neuropsychology</i> , <b>2019</b> , 34, 548-562	2.7	8
43	Cognitive profiles and associated structural brain networks in a multimorbid sample of marginalized adults. <i>PLoS ONE</i> , <b>2019</b> , 14, e0218201	3.7	7
42	Myelin water imaging and R mapping in neonates: Investigating R dependence on myelin and fibre orientation in whole brain white matter. <i>NMR in Biomedicine</i> , <b>2020</b> , 33, e4222	4.4	7
41	Cerebral Small Vessel Disease, Risk Factors, and Cognition in Tenants of Precarious Housing. <i>Stroke</i> , <b>2020</b> , 51, 3271-3278	6.7	7
40	The influence of iron oxidation state on quantitative MRI parameters in post mortem human brain. <i>NeuroImage</i> , <b>2020</b> , 220, 117080	7.9	7
39	Prevalence and Risk Factors of Brain Infarcts and Associations With Cognitive Performance in Tenants of Marginal Housing. <i>Journal of the American Heart Association</i> , <b>2019</b> , 8, e011412	6	6
38	A comparison of regional brain volumes and white matter connectivity in subjects with stimulant induced psychosis versus schizophrenia. <i>Psychopharmacology</i> , <b>2019</b> , 236, 3385-3399	4.7	6
37	Longitudinal advanced MRI case report of white matter radiation necrosis. <i>Annals of Clinical and Translational Neurology</i> , <b>2019</b> , 6, 379-385	5.3	6
36	Diffusion tensor imaging of neurocognitive profiles in a community cohort living in marginal housing. <i>Brain and Behavior</i> , <b>2019</b> , 9, e01233	3.4	6
35	DECAES - DEcomposition and Component Analysis of Exponential Signals. <i>Zeitschrift Fur Medizinische Physik</i> , <b>2020</b> , 30, 271-278	7.6	6
34	Cartilage recovery in runners with and without knee osteoarthritis: A pilot study. <i>Knee</i> , <b>2019</b> , 26, 1049-1057	5.7	6
33	Disparate effects of adalimumab and fumaric acid esters on cardiovascular risk factors in psoriasis patients: results from a prospective, randomized, observer-blinded head-to-head trial. <i>Journal of the European Academy of Dermatology and Venereology</i> , <b>2021</b> , 35, 441-449	4.6	6
32	Associations Between Findings From Myelin Water Imaging and Cognitive Performance Among Individuals With Multiple Sclerosis. <i>JAMA Network Open</i> , <b>2020</b> , 3, e2014220	10.4	5
31	Non-negative least squares computation for in vivo myelin mapping using simulated multi-echo spin-echo T decay data. <i>NMR in Biomedicine</i> , <b>2020</b> , 33, e4277	4.4	5
30	Imaging the Role of Myelin in Concussion. <i>Neuroimaging Clinics of North America</i> , <b>2018</b> , 28, 83-90	3	5

29	Prevalence of Extracranial Venous Narrowing on Magnetic Resonance Venography Is Similar in People With Multiple Sclerosis, Their Siblings, and Unrelated Healthy Controls: A Blinded, Case-Control Study. <i>Canadian Association of Radiologists Journal</i> , <b>2017</b> , 68, 202-209	3.9	4
28	Quantitative Analysis of Punctate White Matter Lesions in Neonates Using Quantitative Susceptibility Mapping and R2* Relaxation. <i>American Journal of Neuroradiology</i> , <b>2019</b> , 40, 1221-1226	4.4	4
27	Multi-echo GRE imaging of knee cartilage. <i>Journal of Magnetic Resonance Imaging</i> , <b>2017</b> , 45, 1502-1513	5.6	4
26	Deep grey matter injury in multiple sclerosis: a NAIMS consensus statement. <i>Brain</i> , <b>2021</b> , 144, 1974-1984	4.2	4
25	Magnetic resonance spectroscopy evidence for declining gliosis in MS patients treated with ocrelizumab versus interferon beta-1a. <i>Multiple Sclerosis Journal - Experimental, Translational and Clinical</i> , <b>2019</b> , 5, 2055217319879952	2	4
24	Three-dimensional MRI sequences in MS diagnosis and research. <i>Multiple Sclerosis Journal</i> , <b>2019</b> , 25, 1709-1709	3	3
23	RE: Elucidating Pretreatment Cognitive Impairment in Breast Cancer Patients: The Impact of Cancer-Related Post-traumatic Stress. <i>Journal of the National Cancer Institute</i> , <b>2016</b> , 108,	9.7	3
22	FLAIR improves LesionTOADS automatic segmentation of multiple sclerosis lesions in non-homogenized, multi-center, 2D clinical magnetic resonance images. <i>NeuroImage: Clinical</i> , <b>2019</b> , 23, 101918	5.3	3
21	Post Mortem Validation of MRI-Identified Veins on the Surface of the Cerebral Cortex as Potential Landmarks for Neurosurgery. <i>Frontiers in Neuroscience</i> , <b>2017</b> , 11, 355	5.1	3
20	Noise reduction in FLAIR images using total generalized variation, Gaussian and Wiener filtering. <i>Zeitschrift Fur Medizinische Physik</i> , <b>2018</b> , 28, 286-292	7.6	3
19	Myelin Water Imaging and Transcranial Magnetic Stimulation Suggest Structure-Function Relationships in Multiple Sclerosis. <i>Frontiers in Physics</i> , <b>2019</b> , 7,	3.9	2
18	Subtraction of in-phase and opposed-phase images in dynamic MR mammography. <i>Journal of Magnetic Resonance Imaging</i> , <b>2005</b> , 21, 565-75	5.6	2
17	Myelin water imaging depends on white matter fiber orientation in the human brain		2
16	Characterizing Traumatic Brain Injury and Its Association with Losing Stable Housing in a Community-based Sample : Caractérisation d'une lésion cérébrale traumatique et de son association avec la perte d'un logement stable dans un échantillon communautaire. <i>Canadian Journal of Neurology</i> , <b>2021</b> , 38, 1487-1494	4.8	2
15	Differential effects of cannabis exposure during early versus later adolescence on the expression of psychosis in homeless and precariously housed adults. <i>Progress in Neuro-Psychopharmacology and Biological Psychiatry</i> , <b>2021</b> , 106, 110084	5.5	2
14	Processing Concepts and SWI Filtered Phase Images	89-101	2
13	Detection of multiple intracranial hemorrhages in a child with acute lymphocytic leukemia (ALL) by susceptibility weighted imaging (SWI). <i>Radiology Case Reports</i> , <b>2007</b> , 2, 135	1	1
12	Recovering SWI-filtered phase data using deep learning. <i>Magnetic Resonance in Medicine</i> , <b>2022</b> , 87, 948-959	4.9	1

11	The role of diffusion and perivascular spaces in dynamic susceptibility contrast MRI		1
10	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> , <b>2021</b> , 34, e4429	4.4	1
9	White matter but not grey matter predicts change in reading skills after intervention. <i>Dyslexia</i> , <b>2021</b> , 27, 224-244	1.6	1
8	Water content changes in new multiple sclerosis lesions have a minimal effect on the determination of myelin water fraction values. <i>Journal of Neuroimaging</i> , <b>2021</b> , 31, 1119-1125	2.8	1
7	Cerebral Microbleeds: A Call for Standardized Advanced Neuroimaging. <i>American Journal of Neuroradiology</i> , <b>2017</b> , 38, E90-E91	4.4	
6	Cortical morphology predicts placebo response in multiple sclerosis.. <i>Scientific Reports</i> , <b>2022</b> , 12, 732	4.9	
5	FLAIR post-processing: improving MS lesion detection in standard MS imaging protocols. <i>Journal of Neurology</i> , <b>2021</b> , 1	5.5	
4	Understanding T2*-Related Signal Loss73-87		
3	Phase and its Relationship to Imaging Parameters and Susceptibility47-71		
2	Quantitative Susceptibility Mapping of Venous Vessels in Neonates with Perinatal Asphyxia. <i>American Journal of Neuroradiology</i> , <b>2021</b> , 42, 1327-1333	4.4	
1	Component Processes of Decision Making in a Community Sample of Precariously Housed Persons: Associations With Learning and Memory, and Health-Risk Behaviors. <i>Frontiers in Psychology</i> , <b>2021</b> , 12, 571423	3.4	