Chunlei Liu

List of Publications by Citations

120 papers	5,430 citations	37 h-index	71 g-index
126 ext. papers	6,590 ext. citations	6.1 avg, IF	5.97 L-index

#	Paper	IF	Citations
120	Quantitative susceptibility mapping of human brain reflects spatial variation in tissue composition. *NeuroImage*, **2011**, 55, 1645-56	7.9	374
119	Susceptibility-weighted imaging and quantitative susceptibility mapping in the brain. *Journal of Magnetic Resonance Imaging*, **2015**, 42, 23-41	5.6	288
118	Susceptibility tensor imaging. *Magnetic Resonance in Medicine*, **2010**, 63, 1471-7	4.4	258
117	Whole brain susceptibility mapping using compressed sensing. *Magnetic Resonance in Medicine*, **2012**, 67, 137-47	4.4	256
116	Characterizing non-Gaussian diffusion by using generalized diffusion tensors. *Magnetic Resonance in Medicine*, **2004**, 51, 924-37	4.4	206
115	Protective astrogenesis from the SVZ niche after injury is controlled by Notch modulator Thbs4. *Nature*, **2013**, 497, 369-73	50.4	190
114	Self-navigated interleaved spiral (SNAILS): application to high-resolution diffusion tensor imaging. *Magnetic Resonance in Medicine*, **2004**, 52, 1388-96	4.4	188
113	Integrated Laplacian-based phase unwrapping and background phase removal for quantitative susceptibility mapping. *NMR in Biomedicine*, **2014**, 27, 219-27	4.4	182
112	High-field (9.4 T) MRI of brain dysmyelination by quantitative mapping of magnetic susceptibility. *NeuroImage*, **2011**, 56, 930-8	7.9	175
111	A method for estimating and removing streaking artifacts in quantitative susceptibility mapping. *NeuroImage*, **2015**, 108, 111-22	7.9	167
110	Magnetic susceptibility anisotropy of human brain in vivo and its molecular underpinnings. *NeuroImage*, **2012**, 59, 2088-97	7.9	162
109	Differential developmental trajectories of magnetic susceptibility in human brain gray and white matter over the lifespan. *Human Brain Mapping*, **2014**, 35, 2698-713	5.9	154
108	Region-specific disturbed iron distribution in early idiopathic Parkinson's disease measured by quantitative susceptibility mapping. *Human Brain Mapping*, **2015**, 36, 4407-20	5.9	126
107	Streaking artifact reduction for quantitative susceptibility mapping of sources with large dynamic range. *NMR in Biomedicine*, **2015**, 28, 1294-303	4.4	109
106	Fast and tissue-optimized mapping of magnetic susceptibility and T2* with multi-echo and multi-shot spirals. *NeuroImage*, **2012**, 59, 297-305	7.9	108
105	Effects of chronic mild traumatic brain injury on white matter integrity in Iraq and Afghanistan war veterans. *Human Brain Mapping*, **2013**, 34, 2986-99	5.9	89
104	Regionally progressive accumulation of iron in Parkinson's disease as measured by quantitative susceptibility mapping. *NMR in Biomedicine*, **2017**, 30, e3489	4.4	86

103	Quantitative Susceptibility Mapping: Contrast Mechanisms and Clinical Applications. *Tomography*, **2015**, 1, 3-17	3.1	78
102	Simultaneous phase correction and SENSE reconstruction for navigated multi-shot DWI with non-cartesian k-space sampling. *Magnetic Resonance in Medicine*, **2005**, 54, 1412-22	4.4	78
101	Augmented generalized SENSE reconstruction to correct for rigid body motion. *Magnetic Resonance in Medicine*, **2007**, 57, 90-102	4.4	77
100	3D fiber tractography with susceptibility tensor imaging. *NeuroImage*, **2012**, 59, 1290-8	7.9	76
99	Foundations of advanced magnetic resonance imaging. *NeuroRx*, **2005**, 2, 167-96		67
98	Imaging beta amyloid aggregation and iron accumulation in Alzheimer's disease using quantitative susceptibility mapping MRI. *NeuroImage*, **2019**, 191, 176-185	7.9	64
97	Prefrontal plasticity and stress inoculation-induced resilience. *Developmental Neuroscience*, **2009**, 31, 293-9	2.2	60
96	Radioprotection of the brain white matter by Mn(III) n-Butoxyethylpyridylporphyrin-based superoxide dismutase mimic MnTnBuOE-2-PyP5+. *Molecular Cancer Therapeutics*, **2015**, 14, 70-9	6.1	55
95	The Alzheimer structural connectome: changes in cortical network topology with increased amyloid plaque burden. *Radiology*, **2014**, 273, 175-84	20.5	52
94	Longitudinal atlas for normative human brain development and aging over the lifespan using quantitative susceptibility mapping. *NeuroImage*, **2018**, 171, 176-189	7.9	51
93	Exploring the origins of echo-time-dependent quantitative susceptibility mapping (QSM) measurements in healthy tissue and cerebral microbleeds. *NeuroImage*, **2017**, 149, 98-113	7.9	49
92	Investigating magnetic susceptibility of human knee joint at 7 Tesla. *Magnetic Resonance in Medicine*, **2017**, 78, 1933-1943	4.4	45
91	An interferon-□resistant and NLRP3 inflammasome-independent subtype of EAE with neuronal damage. *Nature Neuroscience*, **2016**, 19, 1599-1609	25.5	44
90	Differential microstructural and morphological abnormalities in mild cognitive impairment and Alzheimer's disease: Evidence from cortical and deep gray matter. *Human Brain Mapping*, **2017**, 38, 2495-2508	5.9	43
89	Susceptibility tensor imaging of the kidney and its microstructural underpinnings. *Magnetic Resonance in Medicine*, **2015**, 73, 1270-81	4.4	43
88	Quantitative Susceptibility Mapping at 3 T and 1.5 T: Evaluation of Consistency and Reproducibility. *Investigative Radiology*, **2015**, 50, 522-30	10.1	42
87	Susceptibility tensor imaging (STI) of the brain. *NMR in Biomedicine*, **2017**, 30, e3540	4.4	39
86	Single-step nonlinear diffusion tensor estimation in the presence of microscopic and macroscopic motion. *Magnetic Resonance in Medicine*, **2008**, 59, 1138-50	4.4	39

85	Rapid multi-orientation quantitative susceptibility mapping. *NeuroImage*, **2016**, 125, 1131-1141	7.9	38
84	Quantitative magnetic susceptibility of the developing mouse brain reveals microstructural changes in the white matter. *NeuroImage*, **2014**, 88, 134-42	7.9	37
83	Quantitative susceptibility mapping of kidney inflammation and fibrosis in type 1 angiotensin receptor-deficient mice. *NMR in Biomedicine*, **2013**, 26, 1853-63	4.4	37
82	Parallel reconstruction using null operations. *Magnetic Resonance in Medicine*, **2011**, 66, 1241-53	4.4	36
81	Correlation of apparent diffusion coefficient and fractional anisotropy values in the developing infant brain. *American Journal of Roentgenology*, **2010**, 195, W456-62	5.4	36
80	Imaging whole-brain cytoarchitecture of mouse with MRI-based quantitative susceptibility mapping. *NeuroImage*, **2016**, 137, 107-115	7.9	36
79	Temperature-activated ion channels in neural crest cells confer maternal fever-associated birth defects. *Science Signaling*, **2017**, 10,	8.8	35
78	Association between increased magnetic susceptibility of deep gray matter nuclei and decreased motor function in healthy adults. *NeuroImage*, **2015**, 105, 45-52	7.9	33
77	Magnetic susceptibility of brain iron is associated with childhood spatial IQ. *NeuroImage*, **2016**, 132, 167-174	7.9	33
76	Parallel imaging reconstruction for arbitrary trajectories using k-space sparse matrices (kSPA). *Magnetic Resonance in Medicine*, **2007**, 58, 1171-81	4.4	33
75	Simultaneous imaging of in vivo conductivity and susceptibility. *Magnetic Resonance in Medicine*, **2014**, 71, 1144-50	4.4	32
74	Susceptibility map-weighted imaging (SMWI) for neuroimaging. *Magnetic Resonance in Medicine*, **2014**, 72, 337-46	4.4	32
73	Magnetic susceptibility anisotropy of myocardium imaged by cardiovascular magnetic resonance reflects the anisotropy of myocardial filament α-helix polypeptide bonds. *Journal of Cardiovascular Magnetic Resonance*, **2015**, 17, 60	6.9	29
72	Dentate nucleus iron deposition is a potential biomarker for tremor-dominant Parkinson's disease. *NMR in Biomedicine*, **2017**, 30, e3554	4.4	28
71	White Matter Changes Related to Subconcussive Impact Frequency during a Single Season of High School Football. *American Journal of Neuroradiology*, **2018**, 39, 245-251	4.4	28
70	Association of the ZNF804A gene polymorphism rs1344706 with white matter density changes in Chinese schizophrenia. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, **2012**, 36, 122-7	5.5	27
69	Joint 2D and 3D phase processing for quantitative susceptibility mapping: application to 2D echo-planar imaging. *NMR in Biomedicine*, **2017**, 30, e3501	4.4	26
68	Limitations of apparent diffusion coefficient-based models in characterizing non-gaussian diffusion. *Magnetic Resonance in Medicine*, **2005**, 54, 419-28	4.4	26

67	Multi-atlas tool for automated segmentation of brain gray matter nuclei and quantification of their magnetic susceptibility. *NeuroImage*, **2019**, 191, 337-349	7.9	25
66	Prenatal alcohol exposure reduces magnetic susceptibility contrast and anisotropy in the white matter of mouse brains. *NeuroImage*, **2014**, 102 Pt 2, 748-55	7.9	25
65	Quantitative assessment of gadolinium deposition in dentate nucleus using quantitative susceptibility mapping. *Journal of Magnetic Resonance Imaging*, **2017**, 45, 1352-1358	5.6	25
64	Learning-based single-step quantitative susceptibility mapping reconstruction without brain extraction. *NeuroImage*, **2019**, 202, 116064	7.9	24
63	Imaging neural architecture of the brain based on its multipole magnetic response. *NeuroImage*, **2013**, 67, 193-202	7.9	24
62	Advances in magnetic resonance neuroimaging. *Neurologic Clinics*, **2009**, 27, 1-19, xiii	4.5	24
61	Susceptibility tensor imaging and tractography of collagen fibrils in the articular cartilage. *Magnetic Resonance in Medicine*, **2017**, 78, 1683-1690	4.4	23
60	In vivo generalized diffusion tensor imaging (GDTI) using higher-order tensors (HOT). *Magnetic Resonance in Medicine*, **2010**, 63, 243-52	4.4	23
59	Iron-related nigral degeneration influences functional topology mediated by striatal dysfunction in Parkinson's disease. *Neurobiology of Aging*, **2019**, 75, 83-97	5.6	22
58	Quantitative susceptibility mapping in combination with water-fat separation for simultaneous liver iron and fat fraction quantification. *European Radiology*, **2018**, 28, 3494-3504	8	21
57	Consensus-based technical recommendations for clinical translation of renal BOLD MRI. *Magnetic Resonance Materials in Physics, Biology, and Medicine*, **2020**, 33, 199-215	2.8	21
56	MRI tools for assessment of microstructure and nephron function of the kidney. *American Journal of Physiology - Renal Physiology*, **2016**, 311, F1109-F1124	4.3	21
55	Dynamic contrast-enhanced quantitative susceptibility mapping with ultrashort echo time MRI for evaluating renal function. *American Journal of Physiology - Renal Physiology*, **2016**, 310, F174-82	4.3	19
54	Distribution of brain iron accrual in adolescence: Evidence from cross-sectional and longitudinal analysis. *Human Brain Mapping*, **2019**, 40, 1480-1495	5.9	19
53	Quantitative susceptibility mapping as a biomarker for evaluating white matter alterations in Parkinson's disease. *Brain Imaging and Behavior*, **2019**, 13, 220-231	4.1	19
52	Decoding COVID-19 pneumonia: comparison of deep learning and radiomics CT image signatures. *European Journal of Nuclear Medicine and Molecular Imaging*, **2021**, 48, 1478-1486	8.8	19
51	No association of ZNF804A rs1344706 with white matter integrity in schizophrenia: a tract-based spatial statistics study. *Neuroscience Letters*, **2013**, 532, 64-9	3.3	18
50	Magnetic susceptibility anisotropy outside the central nervous system. *NMR in Biomedicine*, **2017**, 30, e3544	4.4	17

49	Microstructural origins of gadolinium-enhanced susceptibility contrast and anisotropy. *Magnetic Resonance in Medicine*, **2014**, 72, 1702-11	4.4	16
48	Parallel spectroscopic imaging reconstruction with arbitrary trajectories using k-space sparse matrices. *Magnetic Resonance in Medicine*, **2009**, 61, 267-72	4.4	16
47	Microstructural alterations of cortical and deep gray matter over a season of high school football revealed by diffusion kurtosis imaging. *Neurobiology of Disease*, **2018**, 119, 79-87	7.5	15
46	Probing white-matter microstructure with higher-order diffusion tensors and susceptibility tensor MRI. *Frontiers in Integrative Neuroscience*, **2013**, 7, 11	3.2	15
45	Generalized Diffusion Tensor Imaging (GDTI): A Method for Characterizing and Imaging Diffusion Anisotropy Caused by Non-Gaussian Diffusion. *Israel Journal of Chemistry*, **2010**, 43, 145-154	3.4	15
44	Comparison of Magnetic Susceptibility Tensor and Diffusion Tensor of the Brain. *Journal of Neuroscience and Neuroengineering*, **2013**, 2, 431-440		14
43	Multivariate MR biomarkers better predict cognitive dysfunction in mouse models of Alzheimer's disease. *Magnetic Resonance Imaging*, **2019**, 60, 52-67	3.3	13
42	Neonate and infant brain development from birth to 2 years assessed using MRI-based quantitative susceptibility mapping. *NeuroImage*, **2019**, 185, 349-360	7.9	13
41	Longitudinal data for magnetic susceptibility of normative human brain development and aging over the lifespan. *Data in Brief*, **2018**, 20, 623-631	1.2	13
40	Probing demyelination and remyelination of the cuprizone mouse model using multimodality MRI. *Journal of Magnetic Resonance Imaging*, **2019**, 50, 1852-1865	5.6	12
39	Lipid Oxidation Induced by RF Waves and Mediated by Ferritin Iron Causes Activation of Ferritin-Tagged Ion Channels. *Cell Reports*, **2020**, 30, 3250-3260.e7	10.6	12
38	Improved Neuroimaging Atlas of the Dentate Nucleus. *Cerebellum*, **2017**, 16, 951-956	4.3	12
37	Plasticity in deep and superficial white matter: a DTI study in world class gymnasts. *Brain Structure and Function*, **2018**, 223, 1849-1862	4	12
36	The effect of DISC1 on regional gray matter density of schizophrenia in Han Chinese population. *Neuroscience Letters*, **2012**, 517, 21-4	3.3	12
35	Quantitative susceptibility mapping of articular cartilage in patients with osteoarthritis at 3T. *Journal of Magnetic Resonance Imaging*, **2019**, 49, 1665-1675	5.6	12
34	Imaging the Centromedian Thalamic Nucleus Using Quantitative Susceptibility Mapping. *Frontiers in Human Neuroscience*, **2019**, 13, 447	3.3	11
33	MRI gradient-echo phase contrast of the brain at ultra-short TE with off-resonance saturation. *NeuroImage*, **2018**, 175, 1-11	7.9	9
32	Precise targeting of the globus pallidus internus with quantitative susceptibility mapping for deep brain stimulation surgery. *Journal of Neurosurgery*, **2019**, 1-7	3.2	9

31	Toward a marker of upper motor neuron impairment in amyotrophic lateral sclerosis: A fully automatic investigation of the magnetic susceptibility in the precentral cortex. *European Journal of Radiology*, **2020**, 124, 108815	4.7	9
30	Brain MRI with Quantitative Susceptibility Mapping: Relationship to CT Attenuation Values. *Radiology*, **2020**, 294, 600-609	20.5	9
29	Feasibility of Imaging Tissue Electrical Conductivity by Switching Field Gradients with MRI. *Tomography*, **2015**, 1, 125-135	3.1	8
28	Quantitative susceptibility mapping (QSM) as a means to monitor cerebral hematoma treatment. *Journal of Magnetic Resonance Imaging*, **2018**, 48, 907-915	5.6	7
27	Joint eigenvector estimation from mutually anisotropic tensors improves susceptibility tensor imaging of the brain, kidney, and heart. *Magnetic Resonance in Medicine*, **2017**, 77, 2331-2346	4.4	6
26	Imaging diamagnetic susceptibility of collagen in hepatic fibrosis using susceptibility tensor imaging. *Magnetic Resonance in Medicine*, **2020**, 83, 1322-1330	4.4	6
25	Accelerating quantitative susceptibility imaging acquisition using compressed sensing. *Physics in Medicine and Biology*, **2018**, 63, 245002	3.8	6
24	Imaging microstructure with diffusion and susceptibility MR: neuronal density correlation in Disrupted-in-Schizophrenia-1 mutant mice. *NMR in Biomedicine*, **2020**, 33, e4365	4.4	5
23	Dynamic and inherent B0 correction for DTI using stimulated echo spiral imaging. *Magnetic Resonance in Medicine*, **2014**, 71, 1044-53	4.4	5
22	Sliding-window sensitivity encoding (SENSE) calibration for reducing noise in functional MRI (fMRI). *Magnetic Resonance in Medicine*, **2008**, 60, 1090-103	4.4	5
21	Generalized parameter estimation in multi-echo gradient-echo-based chemical species separation. *Quantitative Imaging in Medicine and Surgery*, **2020**, 10, 554-567	3.6	5
20	Oscillation-specific nodal alterations in early to middle stages Parkinson's disease. *Translational Neurodegeneration*, **2019**, 8, 36	10.3	5
19	DTI Tract-Based Quantitative Susceptibility Mapping: An Initial Feasibility Study to Investigate the Potential Role of Myelination in Brain Connectivity Change in Cerebral Palsy Patients During Autologous Cord Blood Cell Therapy Using a Rotationally-Invariant Quantitative Measure. *Journal of Magnetic Resonance Imaging*, **2021**, 53, 251-258	5.6	4
18	MoDL-QSM: Model-based deep learning for quantitative susceptibility mapping. *NeuroImage*, **2021**, 240, 118376	7.9	4
17	Elevated homocysteine and differential risks of the renal function decline in hypertensive patients. *Clinical and Experimental Hypertension*, **2020**, 42, 565-570	2.2	3
16	Multiphoton magnetic resonance in imaging: A classical description and implementation. *Magnetic Resonance in Medicine*, **2020**, 84, 1184-1197	4.4	3
15	Asymmetrical nigral iron accumulation in Parkinson's disease with motor asymmetry: an explorative, longitudinal and test-retest study. *Aging*, **2020**, 12, 18622-18634	5.6	3
14	Multimodal integration of diffusion MRI for better characterization of tissue biology. *NMR in Biomedicine*, **2019**, 32, e3939	4.4	2

13	Auto-calibrated parallel imaging reconstruction for arbitrary trajectories using k-space sparse matrices (kSPA). *IEEE Transactions on Medical Imaging*, **2010**, 29, 950-9	11.7	2
12	Evaluating methods and protocols of ferritin-based magnetogenetics. *IScience*, **2021**, 24, 103094	6.1	2
11	Cortical iron mediates age-related decline in fluid cognition. *Human Brain Mapping*, **2021**,	5.9	1
10	Foundations of advanced magnetic resonance imaging. *Neurotherapeutics*, **2005**, 2, 167-196	6.4	1
9	Quantitative Susceptibility Mapping of the Hippocampal Fimbria in Alzheimer's Disease. *Journal of Magnetic Resonance Imaging*, **2021**, 53, 1823-1832	5.6	1
8	Predictive value of thrombus susceptibility for cardioembolic stroke by quantitative susceptibility mapping.. *Quantitative Imaging in Medicine and Surgery*, **2022**, 12, 550-557	3.6	1
7	Decompose quantitative susceptibility mapping (QSM) to sub-voxel diamagnetic and paramagnetic components based on gradient-echo MRI data. *NeuroImage*, **2021**, 242, 118477	7.9	1
6	Serum Ceruloplasmin Depletion is Associated With Magnetic Resonance Evidence of Widespread Accumulation of Brain Iron in Parkinson's Disease. *Journal of Magnetic Resonance Imaging*, **2021**, 54, 1098-1106	5.6	0
5	Asymmetric susceptibility tensor imaging. *Magnetic Resonance in Medicine*, **2021**, 86, 2266-2275	4.4	0
4	DiSpect: Displacement spectrum imaging of flow and tissue perfusion using spin-labeling and stimulated echoes. *Magnetic Resonance in Medicine*, **2021**, 86, 2468-2481	4.4	0
3	Parallel-Imaging Reconstruction of Arbitrary-k-Space-Sampling Data **2007**, 71-90		
2	Basilar artery thrombus magnetic susceptibility for cardioembolic stroke identification.. *Quantitative Imaging in Medicine and Surgery*, **2022**, 12, 1579-1584	3.6	
1	Involvement of the crosstalk between Nrf2 and NF-B pathways regulated by SIRT1 in myocardial ischemia/reperfusion injury.. *International Journal of Cardiology*, **2022**,	3.2	