Peiying Liu

List of Publications by Year
in descending order

95 papers	3,651 citations	136740 32 h-index	161609 54 g-index
96 all docs	96 docs citations	96 times ranked	3989 citing authors

#	Article	IF	Citations
1	Longitudinal changes in brain oxygen extraction fraction (OEF) in older adults: Relationship to markers of vascular and Alzheimer's pathology. Alzheimer's and Dementia, 2023, 19, 569-577.	0.4	8
2	Imaging Bloodâ€“Brain Barrier Permeability Through <scp>MRI</scp> in Pediatric Sickle Cell Disease: A Feasibility Study. Journal of Magnetic Resonance Imaging, 2022, 55, 1551-1558.	1.9	6
3	Cerebrovascular Reactivity (CVR) in Aging, Cognitive Impairment, and Dementia. Neuromethods, 2022, , 103-118.	0.2	0
4	Hemodynamic and metabolic changes during hypercapnia with normoxia and hyperoxia using pCASL and TRUST MRI in healthy adults. Journal of Cerebral Blood Flow and Metabolism, 2022, 42, 861-875.	2.4	8
5	OUP accepted manuscript. Cerebral Cortex, 2022, , .	1.6	4
6	Brain Oxygen Extraction and Metabolism in Pediatric Patients With Sickle Cell Disease: Comparison of Four Calibration Models. Frontiers in Physiology, 2022, 13, 814979.	1.3	3
7	Longitudinal Changes in Global Cerebral Blood Flow in Cognitively Normal Older Adults: A Phaseâ€Contrast MRI Study. Journal of Magnetic Resonance Imaging, 2022, 56, 1538-1545.	1.9	4
8	Non-contrast hemodynamic imaging of Moyamoya disease with MR fingerprinting ASL: A feasibility study. Magnetic Resonance Imaging, 2022, 88, 116-122.	1.0	4
9	Age-Related Tortuosity of Carotid and Vertebral Arteries: Quantitative Evaluation With MR Angiography. Frontiers in Neurology, 2022, 13, 858805.	1.1	10
10	Bloodâ€“brain barrier permeability in response to caffeine challenge. Magnetic Resonance in Medicine, 2022, 88, 2259-2266.	1.9	8
11	Multiâ€band MR fingerprinting (MRF) ASL imaging using artificialâ€neuralâ€network trained with highâ€fidelity experimental data. Magnetic Resonance in Medicine, 2021, 85, 1974-1985.	1.9	15
12	Fractional anisotropy from diffusion tensor imaging correlates with acute astrocyte and myelin swelling in neonatal swine models of excitotoxic and hypoxicâ€ischemic brain injury. Journal of Comparative Neurology, 2021, 529, 2750-2770.	0.9	10
13	Quantitative validation of MRI mapping of cerebral venous oxygenation with direct blood sampling: A gradedâ€O₂ study in piglets. Magnetic Resonance in Medicine, 2021, 86, 1445-1453.	1.9	5
14	Cerebrovascular Reactivity Mapping Using Resting-State BOLD Functional MRI in Healthy Adults and Patients with Moyamoya Disease. Radiology, 2021, 299, 419-425.	3.6	40
15	<scp>Multiâ€Parametric</scp> Evaluation of Cerebral Hemodynamics in Neonatal Piglets Using <scp>Nonâ€Contrastâ€</scp>Enhanced <scp>Magnetic Resonance Imaging</scp> Methods. Journal of Magnetic Resonance Imaging, 2021, 54, 1053-1065.	1.9	9
16	Huntingtin silencing delays onset and slows progression of Huntingtonâ€™s disease: a biomarker study. Brain, 2021, 144, 3101-3113.	3.7	21
17	Bloodâ€“Brain Barrier Breakdown in Relationship to Alzheimer and Vascular Disease. Annals of Neurology, 2021, 90, 227-238.	2.8	57
18	The neuralâ€“vascular basis of ageâ€related processing speed decline. Psychophysiology, 2021, 58, e13845.	1.2	7

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19	Multi-vendor and multisite evaluation of cerebrovascular reactivity mapping using hypercapnia challenge. NeuroImage, 2021, 245, 118754.	2.1	7
20	Relationships between cerebrovascular reactivity, visual-evoked functional activity, and resting-state functional connectivity in the visual cortex and basal forebrain in glaucoma. , 2021, 2021, 4037-4040.		5
21	Discovery and replication of cerebral bloodÂflow differences in major depressive disorder. Molecular Psychiatry, 2020, 25, 1500-1510.	4.1	28
22	Normal variations in brain oxygen extraction fraction are partly attributed to differences in end-tidal CO₂. Journal of Cerebral Blood Flow and Metabolism, 2020, 40, 1492-1500.	2.4	13
23	MR fingerprinting ASL: Sequence characterization and comparison with dynamic susceptibility contrast (DSC) MRI. NMR in Biomedicine, 2020, 33, e4202.	1.6	11
24	Quantification of wholeâ€brain oxygenation extraction fraction and cerebral metabolic rate of oxygen consumption in adults with sickle cell anemia using individual T₂â€based oxygenation calibrations. Magnetic Resonance in Medicine, 2020, 83, 1066-1080.	1.9	28
25	Persistent alterations in cerebrovascular reactivity in response to hypercapnia following pediatric mild traumatic brain injury. Journal of Cerebral Blood Flow and Metabolism, 2020, 40, 2491-2504.	2.4	21
26	The association between BOLD-based cerebrovascular reactivity (CVR) and end-tidal CO2 in healthy subjects. NeuroImage, 2020, 207, 116365.	2.1	23
27	Association of cerebrovascular reactivity and Alzheimer pathologic markers with cognitive performance. Neurology, 2020, 95, e962-e972.	1.5	39
28	Quantitative Cerebrovascular Reactivity in Normal Aging: Comparison Between Phase-Contrast and Arterial Spin Labeling MRI. Frontiers in Neurology, 2020, 11, 758.	1.1	13
29	Mutant G2019S-LRRK2 Induces Abnormalities in Arteriolar Cerebral Blood Volume in Mouse Brains: An MRI Study. Neurodegenerative Diseases, 2020, 20, 65-72.	0.8	1
30	Mean Diffusivity in Striatum Correlates With Acute Neuronal Death but Not Lesser Neuronal Injury in a Pilot Study of Neonatal Piglets With Encephalopathy. Journal of Magnetic Resonance Imaging, 2020, 52, 1216-1226.	1.9	9
31	Brain Oxygen Extraction Is Differentially Altered by Alzheimer's and Vascular Diseases. Journal of Magnetic Resonance Imaging, 2020, 52, 1829-1837.	1.9	33
32	Cerebrovascular reactivity mapping using intermittent breath modulation. NeuroImage, 2020, 215, 116787.	2.1	21
33	Static and dynamic functional connectivity analysis of cerebrovascular reactivity: An fMRI study. Brain and Behavior, 2020, 10, e01516.	1.0	15
34	Vesselâ€specific quantification of neonatal cerebral venous oxygenation. Magnetic Resonance in Medicine, 2019, 82, 1129-1139.	1.9	11
35	Characterization of MRI techniques to assess neonatal brain oxygenation and blood flow. NMR in Biomedicine, 2019, 32, e4103.	1.6	5
36	Evaluation of cerebrovascular reserve in patients with cerebrovascular diseases using resting-state MRI: A feasibility study. Magnetic Resonance Imaging, 2019, 59, 46-52.	1.0	34

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37	ASLâ€MRICloud: An online tool for the processing of ASL MRI data. NMR in Biomedicine, 2019, 32, e4051.	1.6	33
38	Cerebral oxygen metabolism during and after therapeutic hypothermia in neonatal hypoxicâ€“ischemic encephalopathy: a feasibility study using magnetic resonance imaging. Pediatric Radiology, 2019, 49, 224-233.	1.1	21
39	Optimization of phaseâ€contrast MRI for the estimation of global cerebral blood flow of mice at 11.7T. Magnetic Resonance in Medicine, 2019, 81, 2566-2575.	1.9	11
40	Estimation of brain functional connectivity from hypercapnia BOLD MRI data: Validation in a lifespan cohort of 170 subjects. NeuroImage, 2019, 186, 455-463.	2.1	14
41	Cerebrovascular reactivity (CVR) MRI with CO2 challenge: AÂtechnical review. NeuroImage, 2019, 187, 104-115.	2.1	160
42	Assessment of cerebral blood flow in neonates and infants: A phase-contrast MRI study. NeuroImage, 2019, 185, 926-933.	2.1	17
43	MRI techniques to measure arterial and venous cerebral blood volume. NeuroImage, 2019, 187, 17-31.	2.1	75
44	Crossâ€vendor harmonization of T₂â€relaxationâ€underâ€spinâ€tagging (TRUST) MRI for the assessment of cerebral venous oxygenation. Magnetic Resonance in Medicine, 2018, 80, 1125-1131.	1.9	17
45	Detrimental effect of systemic vascular risk factors on brain hemodynamic function assessed with MRI. Neuroradiology Journal, 2018, 31, 253-261.	0.6	7
46	Quantitative assessment of cerebral venous blood T₂ in mouse at 11.7T: Implementation, optimization, and age effect. Magnetic Resonance in Medicine, 2018, 80, 521-528.	1.9	11
47	Arterialâ€spinâ€labeling (ASL) perfusion MRI predicts cognitive function in elderly individuals: A 4â€year longitudinal study. Journal of Magnetic Resonance Imaging, 2018, 48, 449-458.	1.9	67
48	Threeâ€dimensional mapping of brain venous oxygenation using oximetry. Magnetic Resonance in Medicine, 2018, 79, 1304-1313.	1.9	11
49	Cerebral Blood Flow after Mild Traumatic Brain Injury: Associations between Symptoms and Post-Injury Perfusion. Journal of Neurotrauma, 2018, 35, 241-248.	1.7	72
50	Accounting for the role of hematocrit in betweenâ€subject variations of MRIâ€derived baseline cerebral hemodynamic parameters and functional BOLD responses. Human Brain Mapping, 2018, 39, 344-353.	1.9	29
51	Spatial distribution of flow and oxygenation in the cerebral venous drainage system. Journal of Magnetic Resonance Imaging, 2018, 47, 1091-1098.	1.9	18
52	Hemodynamic and Metabolic Assessment of Neonates With Punctate White Matter Lesions Using Phase-Contrast MRI and T2-Relaxation-Under-Spin-Tagging (TRUST) MRI. Frontiers in Physiology, 2018, 9, 233.	1.3	12
53	Transcranial magnetic stimulation and environmental enrichment enhances cortical excitability and functional outcomes after traumatic brain injury. Brain Stimulation, 2018, 11, 1306-1313.	0.7	35
54	Measurement of cerebral blood flow using phase contrast magnetic resonance imaging and duplex ultrasonography. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 541-549.	2.4	36

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55	Heterogeneous increases of regional cerebral blood flow during preterm brain development: Preliminary assessment with pseudo-continuous arterial spin labeled perfusion MRI. NeuroImage, 2017, 147, 233-242.	2.1	47
56	Multiparametric estimation of brain hemodynamics with MR fingerprinting ASL. Magnetic Resonance in Medicine, 2017, 78, 1812-1823.	1.9	73
57	Sildenafil Improves Vascular and Metabolic Function in Patients with Alzheimerâ€™s Disease. Journal of Alzheimer's Disease, 2017, 60, 1351-1364.	1.2	48
58	Fast measurement of blood T₁ in the human carotid artery at 3T: Accuracy, precision, and reproducibility. Magnetic Resonance in Medicine, 2017, 77, 2296-2302.	1.9	43
59	Multiparametric imaging of brain hemodynamics and function using gas-inhalation MRI. NeuroImage, 2017, 146, 715-723.	2.1	32
60	Cerebrovascular reactivity mapping without gas challenges. NeuroImage, 2017, 146, 320-326.	2.1	101
61	The impact of hyperoxia on brain activity: A resting-state and task-evoked electroencephalography (EEG) study. PLoS ONE, 2017, 12, e0176610.	1.1	14
62	Simultaneous multiâ€slice (SMS) acquisition enhances the sensitivity of hemodynamic mapping using gas challenges. NMR in Biomedicine, 2016, 29, 1511-1518.	1.6	9
63	Cortical amyloid burden and age moderate hippocampal activity in cognitively-normal adults. NeuroImage: Clinical, 2016, 12, 78-84.	1.4	18
64	T1 and T2 values of human neonatal blood at 3 Tesla: Dependence on hematocrit, oxygenation, and temperature. Magnetic Resonance in Medicine, 2016, 75, 1730-1735.	1.9	53
65	Multisite evaluations of a T 2 â€relaxationâ€underâ€spinâ€tagging (TRUST) MRI technique to measure brain oxygenation. Magnetic Resonance in Medicine, 2016, 75, 680-687.	1.9	42
66	Optimization of phaseâ€contrast MRI for the quantification of wholeâ€brain cerebral blood flow. Journal of Magnetic Resonance Imaging, 2015, 42, 1126-1133.	1.9	51
67	Acute effect of glucose on cerebral blood flow, blood oxygenation, and oxidative metabolism. Human Brain Mapping, 2015, 36, 707-716.	1.9	24
68	Does acute caffeine ingestion alter brain metabolism in young adults?. NeuroImage, 2015, 110, 39-47.	2.1	54
69	Cerebral perfusion differences in women currently with and recovered from anorexia nervosa. Psychiatry Research - Neuroimaging, 2015, 232, 175-183.	0.9	16
70	Amygdala Hyperactivity at Rest in Paranoid Individuals With Schizophrenia. American Journal of Psychiatry, 2015, 172, 784-792.	4.0	64
71	Automatic and Reproducible Positioning of Phase-Contrast MRI for the Quantification of Global Cerebral Blood Flow. PLoS ONE, 2014, 9, e95721.	1.1	17
72	Dependence of blood T₂ on oxygenation at 7 T: In vitro calibration and in vivo application. Magnetic Resonance in Medicine, 2014, 71, 2035-2042.	1.9	30

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73	Impaired Cerebrovascular Reactivity in Multiple Sclerosis. JAMA Neurology, 2014, 71, 1275.	4.5	111
74	Triheptanoin for Glucose Transporter Type I Deficiency (G1D). JAMA Neurology, 2014, 71, 1255.	4.5	91
75	Age-related increase of resting metabolic rate in the human brain. NeuroImage, 2014, 98, 176-183.	2.1	89
76	MRI assessment of cerebral oxygen metabolism in cocaine-addicted individuals: hypoactivity and dose dependence. NMR in Biomedicine, 2014, 27, 726-732.	1.6	18
77	Cerebrovascular Reactivity in the Brain White Matter: Magnitude, Temporal Characteristics, and Age Effects. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 242-247.	2.4	105
78	Quantitative assessment of global cerebral metabolic rate of oxygen (CMRO₂) in neonates using MRI. NMR in Biomedicine, 2014, 27, 332-340.	1.6	70
79	Non-invasive assessment of neonatal brain oxygen metabolism: A review of newly available techniques. Early Human Development, 2014, 90, 695-701.	0.8	17
80	Vesselâ€specific quantification of blood oxygenation with T₂â€relaxationâ€underâ€phaseâ€contrast MRI. Magnetic Resonance in Medicine, 2014, 71, 978-989.	1.9	45
81	MRI Mapping of Cerebrovascular Reactivity via Gas Inhalation Challenges. Journal of Visualized Experiments, 2014, , .	0.2	57
82	O1-07-05: IMPACT OF B-AMYLOID BURDEN ON BRAIN PERFUSION AND VASCULAR REACTIVITY IN NORMAL AGING. , 2014, 10, P143-P144.		1
83	A comparison of physiologic modulators of fMRI signals. Human Brain Mapping, 2013, 34, 2078-2088.	1.9	56
84	Testâ€“retest reproducibility of a rapid method to measure brain oxygen metabolism. Magnetic Resonance in Medicine, 2013, 69, 675-681.	1.9	87
85	Age-related differences in memory-encoding fMRI responses after accounting for decline in vascular reactivity. NeuroImage, 2013, 78, 415-425.	2.1	92
86	Physiologic underpinnings of negative BOLD cerebrovascular reactivity in brain ventricles. NeuroImage, 2013, 83, 505-512.	2.1	49
87	Lifeâ€long aerobic exercise preserved baseline cerebral blood flow but reduced vascular reactivity to CO₂. Journal of Magnetic Resonance Imaging, 2013, 38, 1177-1183.	1.9	134
88	Effect of Hypoxia and Hyperoxia on Cerebral Blood Flow, Blood Oxygenation, and Oxidative Metabolism. Journal of Cerebral Blood Flow and Metabolism, 2012, 32, 1909-1918.	2.4	145
89	On improving the speed and reliability of T₂â€relaxationâ€underâ€spinâ€tagging (TRUST) MRI. Magnetic Resonance in Medicine, 2012, 68, 198-204.	1.9	54
90	Comparison of relative cerebral blood flow maps using pseudoâ€continuous arterial spin labeling and single photon emission computed tomography. NMR in Biomedicine, 2012, 25, 779-786.	1.6	25

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91	Calibration and validation of TRUST MRI for the estimation of cerebral blood oxygenation. Magnetic Resonance in Medicine, 2012, 67, 42-49.	1.9	162
92	Perfusion deficit to cholinergic challenge in veterans with Gulf War Illness. NeuroToxicology, 2011, 32, 242-246.	1.4	32
93	Determination of spin compartment in arterial spin labeling MRI. Magnetic Resonance in Medicine, 2011, 65, 120-127.	1.9	57
94	Validation of VASO cerebral blood volume measurement with positron emission tomography. Magnetic Resonance in Medicine, 2011, 65, 744-749.	1.9	19
95	Estimation of labeling efficiency in pseudocontinuous arterial spin labeling. Magnetic Resonance in Medicine, 2010, 63, 765-771.	1.9	216