

# Hongyu An

## List of Publications by Year in descending order

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83  
papers

2,482  
citations

218381

26  
h-index

214527

47  
g-index

83  
all docs

83  
docs citations

83  
times ranked

2793  
citing authors

#	ARTICLE	IF	CITATIONS
1	A multi-centre evaluation of eleven clinically feasible brain PET/MRI attenuation correction techniques using a large cohort of patients. <i>NeuroImage</i> , 2017, 147, 346-359.	2.1	200
2	Quantitative Measurements of Cerebral Blood Oxygen Saturation Using Magnetic Resonance Imaging. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2000, 20, 1225-1236.	2.4	198
3	Cerebral oxygen extraction fraction and cerebral venous blood volume measurements using MRI: Effects of magnetic field variation. <i>Magnetic Resonance in Medicine</i> , 2002, 47, 958-966.	1.9	121
4	Impact of intravascular signal on quantitative measures of cerebral oxygen extraction and blood volume under normo- and hypercapnic conditions using an asymmetric spin echo approach. <i>Magnetic Resonance in Medicine</i> , 2003, 50, 708-716.	1.9	116
5	Quantitative measurements of cerebral blood flow in patients with unilateral carotid artery occlusion: A PET and MR study. <i>Journal of Magnetic Resonance Imaging</i> , 2001, 14, 659-667.	1.9	107
6	Magnetic resonance cerebral metabolic rate of oxygen utilization in hyperacute stroke patients. <i>Annals of Neurology</i> , 2003, 53, 227-232.	2.8	100
7	Regional oxygen extraction predicts border zone vulnerability to stroke in sickle cell disease. <i>Neurology</i> , 2018, 90, e1134-e1142.	1.5	81
8	Cerebral venous and arterial blood volumes can be estimated separately in humans using magnetic resonance imaging. <i>Magnetic Resonance in Medicine</i> , 2002, 48, 583-588.	1.9	79
9	MR-based attenuation correction for PET/MRI neurological studies with continuous-valued attenuation coefficients for bone through a conversion from R2* to CT-Hounsfield units. <i>NeuroImage</i> , 2015, 112, 160-168.	2.1	79
10	Silent infarcts in sickle cell disease occur in the border zone region and are associated with low cerebral blood flow. <i>Blood</i> , 2018, 132, 1714-1723.	0.6	78
11	Attenuation Correction of PET/MR Imaging. <i>Magnetic Resonance Imaging Clinics of North America</i> , 2017, 25, 245-255.	0.6	75
12	Red cell exchange transfusions lower cerebral blood flow and oxygen extraction fraction in pediatric sickle cell anemia. <i>Blood</i> , 2018, 131, 1012-1021.	0.6	68
13	Optimal co-clinical radiomics: Sensitivity of radiomic features to tumour volume, image noise and resolution in co-clinical T1-weighted and T2-weighted magnetic resonance imaging. <i>EBioMedicine</i> , 2020, 59, 102963.	2.7	63
14	RARE: Image Reconstruction Using Deep Priors Learned Without Groundtruth. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2020, 14, 1088-1099.	7.3	62
15	Quantitative measurements of cerebral metabolic rate of oxygen utilization using MRI: a volunteer study. <i>NMR in Biomedicine</i> , 2001, 14, 441-447.	1.6	60
16	Evaluation of MR-Derived Cerebral Oxygen Metabolic Index in Experimental Hyperoxic Hypercapnia, Hypoxia, and Ischemia. <i>Stroke</i> , 2009, 40, 2165-2172.	1.0	59
17	Improving high-resolution MR bold venographic imaging using a T1 reducing contrast agent. <i>Journal of Magnetic Resonance Imaging</i> , 1999, 10, 118-123.	1.9	50
18	Defining the Ischemic Penumbra Using Magnetic Resonance Oxygen Metabolic Index. <i>Stroke</i> , 2015, 46, 982-988.	1.0	49

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19	Characteristics of magnetic resonance imaging biomarkers in a natural history study of golden retriever muscular dystrophy. <i>Neuromuscular Disorders</i> , 2014, 24, 178-191.	0.3	46
20	Hydroxyurea reduces cerebral metabolic stress in patients with sickle cell anemia. <i>Blood</i> , 2019, 133, 2436-2444.	0.6	43
21	Large-Vessel Vasculopathy in Children With Sickle Cell Disease: A Magnetic Resonance Imaging Study of Infarct Topography and Focal Atrophy. <i>Pediatric Neurology</i> , 2017, 69, 49-57.	1.0	37
22	Quantification of brain oxygen extraction and metabolism with [15O]-gas PET: A technical review in the era of PET/MRI. <i>NeuroImage</i> , 2020, 220, 117136.	2.1	36
23	Noncontrast skeletal muscle oximetry. <i>Magnetic Resonance in Medicine</i> , 2014, 71, 318-325.	1.9	34
24	Application of Machine Learning to Automated Analysis of Cerebral Edema in Large Cohorts of Ischemic Stroke Patients. <i>Frontiers in Neurology</i> , 2018, 9, 687.	1.1	34
25	Cerebral oxygen extraction fraction (OEF): Comparison of challenge-free gradient echo QSM+qBOLD (QQ) with <sup>15</sup> O PET in healthy adults. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2021, 41, 1658-1668.	2.4	34
26	Signal Evolution and Infarction Risk for Apparent Diffusion Coefficient Lesions in Acute Ischemic Stroke Are Both Time- and Perfusion-Dependent. <i>Stroke</i> , 2011, 42, 1276-1281.	1.0	30
27	Probabilistic Air Segmentation and Sparse Regression Estimated Pseudo CT for PET/MR Attenuation Correction. <i>Radiology</i> , 2015, 275, 562-569.	3.6	27
28	A pilot study of regional perfusion and oxygenation in calf muscles of individuals with diabetes with a noninvasive measure. <i>Journal of Vascular Surgery</i> , 2014, 59, 419-426.	0.6	26
29	Quantitative MRI of Diffuse Liver Disease: Current Applications and Future Directions. <i>Radiology</i> , 2019, 290, 23-30.	3.6	26
30	Evaluating Multisite rCBV Consistency from DSC-MRI Imaging Protocols and Postprocessing Software Across the NCI Quantitative Imaging Network Sites Using a Digital Reference Object (DRO). <i>Tomography</i> , 2019, 5, 110-117.	0.8	25
31	Measurement Repeatability of <sup>18</sup> F-FDG PET/CT Versus <sup>18</sup> F-FDG PET/MRI in Solid Tumors of the Pelvis. <i>Journal of Nuclear Medicine</i> , 2019, 60, 1080-1086.	2.8	23
32	Imaging Oxygen Metabolism in Acute Stroke Using MRI. <i>Current Radiology Reports</i> , 2014, 2, 39.	0.4	22
33	Repeatability of Quantitative Brown Adipose Tissue Imaging Metrics on Positron Emission Tomography with 18F-Fluorodeoxyglucose in Humans. <i>Cell Metabolism</i> , 2019, 30, 212-224.e4.	7.2	21
34	Oxygen Metabolic Stress and White Matter Injury in Patients With Cerebral Small Vessel Disease. <i>Stroke</i> , 2022, 53, 1570-1579.	1.0	19
35	Noninvasive Measurements of Cerebral Blood Flow, Oxygen Extraction Fraction, and Oxygen Metabolic Index in Human with Inhalation of Air and Carbogen using Magnetic Resonance Imaging. <i>Translational Stroke Research</i> , 2012, 3, 246-254.	2.3	18
36	Obesity and White Matter Neuroinflammation Related Edema in Alzheimer's Disease Dementia Biomarker Negative Cognitively Normal Individuals. <i>Journal of Alzheimer's Disease</i> , 2021, 79, 1801-1811.	1.2	18

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37	Oxygen Metabolism in Ischemic Stroke Using Magnetic Resonance Imaging. <i>Translational Stroke Research</i> , 2012, 3, 65-75.	2.3	17
38	Bulk volume susceptibility difference between deoxyhemoglobin and oxyhemoglobin for HbA and HbS: A comparative study. <i>Magnetic Resonance in Medicine</i> , 2021, 85, 3383-3393.	1.9	17
39	Clinically Relevant Reperfusion in Acute Ischemic Stroke: MTT Performs Better than Tmax and TTP. <i>Translational Stroke Research</i> , 2014, 5, 415-421.	2.3	16
40	High-Pressure Transvenous Perfusion of the Upper Extremity in Human Muscular Dystrophy: A Safety Study with 0.9% Saline. <i>Human Gene Therapy</i> , 2015, 26, 614-621.	1.4	16
41	Cerebral Oxygen Metabolic Stress, Microstructural Injury, and Infarction in Adults With Sickle Cell Disease. <i>Neurology</i> , 2021, 97, e902-e912.	1.5	14
42	Early Changes of Tissue Perfusion After Tissue Plasminogen Activator in Hyperacute Ischemic Stroke. <i>Stroke</i> , 2011, 42, 65-72.	1.0	13
43	Lesion evolution and neurodegeneration in RVCL-S. <i>Neurology</i> , 2020, 95, e1918-e1931.	1.5	13
44	Phase2Phase. <i>Investigative Radiology</i> , 2021, 56, 809-819.	3.5	13
45	3D pediatric cranial bone imaging using high-resolution MRI for visualizing cranial sutures: a pilot study. <i>Journal of Neurosurgery: Pediatrics</i> , 2020, 26, 311-317.	0.8	13
46	CAPTURE: Consistently Acquired Projections for Tuned and Robust Estimation. <i>Investigative Radiology</i> , 2018, 53, 293-305.	3.5	12
47	Evaluating the Use of rCBV as a Tumor Grade and Treatment Response Classifier Across NCI Quantitative Imaging Network Sites: Part II of the DSC-MRI Digital Reference Object (DRO) Challenge. <i>Tomography</i> , 2020, 6, 203-208.	0.8	12
48	Reperfusion Beyond 6 Hours Reduces Infarct Probability in Moderately Ischemic Brain Tissue. <i>Stroke</i> , 2016, 47, 99-105.	1.0	11
49	Functional Connectivity Decreases with Metabolic Stress in Sickle Cell Disease. <i>Annals of Neurology</i> , 2020, 88, 995-1008.	2.8	11
50	Deep learning-based T1-enhanced selection of linear attenuation coefficients (DL-LES) for PET/MR attenuation correction in dementia neuroimaging. <i>Magnetic Resonance in Medicine</i> , 2021, 86, 499-513.	1.9	11
51	Hierarchical Reconstruction of 7T-like Images from 3T MRI Using Multi-level CCA and Group Sparsity. <i>Lecture Notes in Computer Science</i> , 2015, 9350, 659-666.	1.0	11
52	Comparison of Cerebral Blood Volume and Plasma Volume in Untreated Intracranial Tumors. <i>PLoS ONE</i> , 2016, 11, e0161807.	1.1	10
53	Increased Cortical Cerebral Blood Flow in Asymptomatic Human Immunodeficiency Virus-Infected Subjects. <i>Journal of Stroke and Cerebrovascular Diseases</i> , 2016, 25, 1891-1895.	0.7	10
54	Cerebral Oxygen Metabolic Stress is Increased in Children with Sickle Cell Anemia Compared to Anemic Controls. <i>American Journal of Hematology</i> , 2022, , .	2.0	10

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55	Elevations in MR Measurements of Whole Brain and Regional Cerebral Blood Flow and Oxygen Extraction Fraction Suggest Cerebral Metabolic Stress in Children with Sickle Cell Disease Unaffected By Overt Stroke. <i>Blood</i> , 2015, 126, 69-69.	0.6	9
56	Bone material analogues for PET/MRI phantoms. <i>Medical Physics</i> , 2020, 47, 2161-2170.	1.6	8
57	Oximetric angiosome imaging in diabetic feet. <i>Journal of Magnetic Resonance Imaging</i> , 2016, 44, 940-946.	1.9	7
58	Deep learning synthesized pseudo-CT for MR high-resolution pediatric cranial bone imaging (MR-HiPCB). <i>Magnetic Resonance in Medicine</i> , 2022, 88, 2285-2297.	1.9	7
59	TOWERS: One with Enhanced Robustness and Speed. <i>Magnetic Resonance in Medicine</i> , 2016, 76, 118-126.	1.9	6
60	A Path to Qualification of PET/MRI Scanners for Multicenter Brain Imaging Studies: Evaluation of MRI-Based Attenuation Correction Methods Using a Patient Phantom. <i>Journal of Nuclear Medicine</i> , 2022, 63, 615-621.	2.8	6
61	Deteriorated regional calf microcirculation measured by contrast-free MRI in patients with diabetes mellitus and relation with physical activity. <i>Diabetes and Vascular Disease Research</i> , 2021, 18, 147916412110290.	0.9	6
62	Deep Image Reconstruction Using Unregistered Measurements Without Groundtruth. , 2021, , .		5
63	Silent Infarcts, White Matter Integrity, and Oxygen Metabolic Stress in Young Adults With and Without Sickle Cell Trait. <i>Stroke</i> , 2022, 53, 2887-2895.	1.0	5
64	A Generative Model for Resolution Enhancement of Diffusion MRI Data. <i>Lecture Notes in Computer Science</i> , 2013, 16, 527-534.	1.0	4
65	Image Reconstruction for MRI using Deep CNN Priors Trained without Groundtruth. , 2020, , .		4
66	MR-Assisted PET respiratory motion correction using deep learning based short-scan motion fields. <i>Magnetic Resonance in Medicine</i> , 2022, 88, 676-690.	1.9	4
67	Evaluation of attenuation correction in PET/MRI with synthetic lesion insertion. <i>Journal of Medical Imaging</i> , 2021, 8, 056001.	0.8	3
68	Quantification of myocardial oxygen extraction fraction: A proof-of-concept study. <i>Magnetic Resonance in Medicine</i> , 2021, 85, 3318-3325.	1.9	2
69	Pilot study of contrast-free MRI reveals significantly impaired calf skeletal muscle perfusion in diabetes with incompressible peripheral arteries. <i>Vascular Medicine</i> , 2021, 26, 367-373.	0.8	2
70	MR Imaging Differences in the Circle of Willis between Healthy Children and Adults. <i>American Journal of Neuroradiology</i> , 2021, 42, 2062-2069.	1.2	2
71	Absolute Oxygenation Metabolism Measurements Using Magnetic Resonance Imaging. <i>Open Neuroimaging Journal</i> , 2011, 5, 120-135.	0.2	2
72	Harmonization of PET image reconstruction parameters in simultaneous PET/MRI. <i>EJNMMI Physics</i> , 2021, 8, 75.	1.3	2

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73	SS-JIRCS: Self-Supervised Joint Image Reconstruction and Coil Sensitivity Calibration in Parallel MRI without Ground Truth. , 2021, , .		2
74	Tailor the longitudinal anaysis for nih longitudinal normal brain developmental study. , 2014, 2014, 1206-1209.		1
75	Cranial vault imaging for pediatric head trauma using a radial VIBE MRI sequence. Journal of Neurosurgery: Pediatrics, 2022, 30, 113-118.	0.8	1
76	Oximetric angiosome imaging in diabetic feet. Journal of Magnetic Resonance Imaging, 2016, 44, spcone-spcone.	1.9	0
77	Magnetic resonance safety assessment of a new trend: magnetic eyelashes. Journal of Applied Clinical Medical Physics, 2020, 21, 323-325.	0.8	0
78	Temporal evolution of cerebral metabolic rate of oxygen utilization using MRI in a middle cerebral artery occlusion stroke. Journal of Cerebral Blood Flow and Metabolism, 2005, 25, S400-S400.	2.4	0
79	Abstract T P45: Automated CSF Segmentation to Quantify Cerebral Edema Following Large Hemispheric Ischemic Stroke. Stroke, 2015, 46, .	1.0	0
80	Abstract WMP20: Validation of an Efficient Machine-learning Approach to Quantify CSF Volume Changes Using Multicenter CT Scans. Stroke, 2016, 47, .	1.0	0
81	Correlation Between Cerebral Blood Flow Velocities Measured By Magnetic Resonance and Transcranial Doppler Ultrasound in Children with Sickle Cell Anemia. Blood, 2016, 128, 2496-2496.	0.6	0
82	Increased Cerebral Metabolic Stress Is Associated with Diminished Functional Connectivity in Pediatric Sickle Cell Anemia. Blood, 2019, 134, 989-989.	0.6	0
83	15O PET Imaging: Methods and Applications. , 2022, , 197-216.		0