Thomas T Liu

List of Publications by Year
in descending order

120 papers	12,116 citations	38742 50 h-index	30922 102 g-index
128 all docs	128 docs citations	128 times ranked	13493 citing authors

#	Article	IF	Citations
1	A component based noise correction method (CompCor) for BOLD and perfusion based fMRI. NeuroImage, 2007, 37, 90-101.	4.2	3,466
2	Modeling the hemodynamic response to brain activation. NeuroImage, 2004, 23, S220-S233.	4.2	1,023
3	The global signal in fMRI: Nuisance or Information?. NeuroImage, 2017, 150, 213-229.	4.2	339
4	Cortical depth-specific microvascular dilation underlies laminar differences in blood oxygenation level-dependent functional MRI signal. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15246-15251.	7.1	267
5	Detection Power, Estimation Efficiency, and Predictability in Event-Related fMRI. NeuroImage, 2001, 13, 759-773.	4.2	251
6	The amplitude of the resting-state fMRI global signal is related to EEG vigilance measures. NeuroImage, 2013, 83, 983-990.	4.2	248
7	Coupling of cerebral blood flow and oxygen consumption during physiological activation and deactivation measured with fMRI. NeuroImage, 2004, 23, 148-155.	4.2	230
8	Noise contributions to the fMRI signal: An overview. NeuroImage, 2016, 143, 141-151.	4.2	227
9	Discrepancies between BOLD and flow dynamics in primary and supplementary motor areas: application of the balloon model to the interpretation of BOLD transients. NeuroImage, 2004, 21, 144-153.	4.2	226
10	Velocity-selective arterial spin labeling. Magnetic Resonance in Medicine, 2006, 55, 1334-1341.	3.0	224
11	A signal processing model for arterial spin labeling functional MRI. NeuroImage, 2005, 24, 207-215.	4.2	202
12	Function biomedical informatics research network recommendations for prospective multicenter functional MRI studies. Journal of Magnetic Resonance Imaging, 2012, 36, 39-54.	3.4	201
13	Nonlinear temporal dynamics of the cerebral blood flow response. Human Brain Mapping, 2001, 13, 1-12.	3.6	183
14	Measurement of cerebral perfusion with arterial spin labeling: Part 1. Methods. Journal of the International Neuropsychological Society, 2007, 13, 517-25.	1.8	173
15	Cerebral perfusion and oxygenation differences in Alzheimer's disease risk. Neurobiology of Aging, 2009, 30, 1737-1748.	3.1	171
16	Caffeine-induced uncoupling of cerebral blood flow and oxygen metabolism: A calibrated BOLD fMRI study. NeuroImage, 2008, 40, 237-247.	4.2	148
17	Anti-correlated networks, global signal regression, and the effects of caffeine in resting-state functional MRI. NeuroImage, 2012, 63, 356-364.	4.2	130
18	An arteriolar compliance model of the cerebral blood flow response to neural stimulus. NeuroImage, 2005, 25, 1100-1111.	4.2	124

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19	The Function Biomedical Informatics Research Network Data Repository. NeuroImage, 2016, 124, 1074-1079.	4.2	114
20	Caffeine alters the temporal dynamics of the visual BOLD response. NeuroImage, 2004, 23, 1402-1413.	4.2	113
21	Efficiency, power, and entropy in event-related fMRI with multiple trial types. NeuroImage, 2004, 21, 401-413.	4.2	112
22	Neurovascular factors in resting-state functional MRI. NeuroImage, 2013, 80, 339-348.	4.2	107
23	Differences in the resting-state fMRI global signal amplitude between the eyes open and eyes closed states are related to changes in EEG vigilance. NeuroImage, 2016, 124, 24-31.	4.2	107
24	Efficiency, power, and entropy in event-related FMRI with multiple trial types. NeuroImage, 2004, 21, 387-400.	4.2	104
25	An automatic MEG low-frequency source imaging approach for detecting injuries in mild and moderate TBI patients with blast and non-blast causes. NeuroImage, 2012, 61, 1067-1082.	4.2	101
26	Physiological noise reduction for arterial spin labeling functional MRI. NeuroImage, 2006, 31, 1104-1115.	4.2	100
27	Cerebral blood flow and BOLD responses to a memory encoding task: A comparison between healthy young and elderly adults. NeuroImage, 2007, 37, 430-439.	4.2	99
28	Measurement of cerebral perfusion with arterial spin labeling: Part 2. Applications. Journal of the International Neuropsychological Society, 2007, 13, 526-38.	1.8	93
29	Underconnected, But Not Broken? Dynamic Functional Connectivity MRI Shows Underconnectivity in Autism Is Linked to Increased Intra-Individual Variability Across Time. Brain Connectivity, 2016, 6, 403-414.	1.7	93
30	Interaction of Age and APOE Genotype on Cerebral Blood Flow at Rest. Journal of Alzheimer's Disease, 2013, 34, 921-935.	2.6	92
31	Multiphase pseudocontinuous arterial spin labeling (MP‐PCASL) for robust quantification of cerebral blood flow. Magnetic Resonance in Medicine, 2010, 64, 799-810.	3.0	90
32	Dynamic functional connectivity in bipolar disorder is associated with executive function and processing speed: A preliminary study.. Neuropsychology, 2017, 31, 73-83.	1.3	89
33	A geometric view of global signal confounds in resting-state functional MRI. NeuroImage, 2012, 59, 2339-2348.	4.2	85
34	Cerebral Blood Flow Measurements in Adults: A Review on the Effects of Dietary Factors and Exercise. Nutrients, 2018, 10, 530.	4.1	84
35	Reduced Regional Cerebral Blood Flow Relates to Poorer Cognition in Older Adults With Type 2 Diabetes. Frontiers in Aging Neuroscience, 2018, 10, 270.	3.4	83
36	Differential age effects on cerebral blood flow and BOLD response to encoding: Associations with cognition and stroke risk. Neurobiology of Aging, 2009, 30, 1276-1287.	3.1	82

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37	Cerebral blood flow predicts differential neurotransmitter activity. Scientific Reports, 2018, 8, 4074.	3.3	78
38	Assessment of Alzheimer's Disease Risk with Functional Magnetic Resonance Imaging: An Arterial Spin Labeling Study. Journal of Alzheimer's Disease, 2012, 31, S59-S74.	2.6	73
39	Interactive effects of vascular risk burden and advanced age on cerebral blood flow. Frontiers in Aging Neuroscience, 2014, 6, 159.	3.4	73
40	Altered Cerebral Perfusion in Executive, Affective, and Motor Networks During Adolescent Depression. Journal of the American Academy of Child and Adolescent Psychiatry, 2013, 52, 1076-1091.e2.	0.5	72
41	Caffeine reduces resting-state BOLD functional connectivity in the motor cortex. NeuroImage, 2009, 46, 56-63.	4.2	69
42	Altered cerebral blood flow and neurocognitive correlates in adolescent cannabis users. Psychopharmacology, 2012, 222, 675-684.	3.1	65
43	Effect of Mild Cognitive Impairment and APOE Genotype on Resting Cerebral Blood Flow and its Association with Cognition. Journal of Cerebral Blood Flow and Metabolism, 2012, 32, 1589-1599.	4.3	65
44	Enhanced identification of BOLD-like components with multi-echo simultaneous multi-slice (MESMS) fMRI and multi-echo ICA. NeuroImage, 2015, 112, 43-51.	4.2	65
45	Template-based prediction of vigilance fluctuations in resting-state fMRI. NeuroImage, 2018, 174, 317-327.	4.2	65
46	An arterial spin labeling investigation of cerebral blood flow deficits in chronic stroke survivors. NeuroImage, 2010, 51, 995-1005.	4.2	62
47	Transient states of network connectivity are atypical in autism: A dynamic functional connectivity study. Human Brain Mapping, 2019, 40, 2377-2389.	3.6	61
48	MEG source imaging method using fast L1 minimum-norm and its applications to signals with brain noise and human resting-state source amplitude images. NeuroImage, 2014, 84, 585-604.	4.2	60
49	A Primer on Functional Magnetic Resonance Imaging. Neuropsychology Review, 2007, 17, 107-125.	4.9	59
50	Distinct thalamocortical network dynamics are associated with the pathophysiology of chronic low back pain. Nature Communications, 2020, 11, 3948.	12.8	59
51	Alcohol Effects on Cerebral Blood Flow in Subjects With Low and High Responses to Alcohol. Alcoholism: Clinical and Experimental Research, 2011, 35, 1034-1040.	2.4	56
52	Caffeine increases the temporal variability of resting-state BOLD connectivity in the motor cortex. NeuroImage, 2012, 59, 2994-3002.	4.2	56
53	A Survey of the Sources of Noise in fMRI. Psychometrika, 2013, 78, 396-416.	2.1	56
54	Caffeine reduces the activation extent and contrast-to-noise ratio of the functional cerebral blood flow response but not the BOLD response. NeuroImage, 2008, 42, 296-305.	4.2	54

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55	Global signal regression acts as a temporal downweighting process in resting-state fMRI. NeuroImage, 2017, 152, 602-618.	4.2	53
56	Turbo ASL: Arterial spin labeling with higher SNR and temporal resolution. Magnetic Resonance in Medicine, 2000, 44, 511-515.	3.0	52
57	A pilot study investigating changes in neural processing after mindfulness training in elite athletes. Frontiers in Behavioral Neuroscience, 2015, 9, 229.	2.0	52
58	Inter-subject variability in hypercapnic normalization of the BOLD fMRI response. NeuroImage, 2009, 45, 420-430.	4.2	50
59	Caffeine reduces the initial dip in the visual BOLD response at 3 T. NeuroImage, 2006, 32, 9-15.	4.2	49
60	Awake Mouse Imaging: From Two-Photon Microscopy to Blood Oxygen Level–Dependent Functional Magnetic Resonance Imaging. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 2019, 4, 533-542.	1.5	49
61	Trend detection via temporal difference model predicts inferior prefrontal cortex activation during acquisition of advantageous action selection. NeuroImage, 2004, 21, 733-743.	4.2	46
62	A novel method for quantifying scanner instability in fMRI. Magnetic Resonance in Medicine, 2011, 65, 1053-1061.	3.0	46
63	Analysis and Design of Perfusion-Based Event-Related fMRI Experiments. NeuroImage, 2002, 16, 269-282.	4.2	40
64	Bayesian inference of hemodynamic changes in functional arterial spin labeling data. Magnetic Resonance in Medicine, 2006, 56, 891-906.	3.0	39
65	Cortical and Subcortical Cerebrovascular Resistance Index in Mild Cognitive Impairment and Alzheimer's Disease. Journal of Alzheimer's Disease, 2013, 36, 689-698.	2.6	39
66	Caffeine-Induced Global Reductions in Resting-State BOLD Connectivity Reflect Widespread Decreases in MEG Connectivity. Frontiers in Human Neuroscience, 2013, 7, 63.	2.0	37
67	Pseudocontinuous arterial spin labeling with optimized tagging efficiency. Magnetic Resonance in Medicine, 2012, 68, 1135-1144.	3.0	36
68	Cerebral blood flow response to acute hypoxic hypoxia. NMR in Biomedicine, 2013, 26, 1844-1852.	2.8	33
69	Increased Hippocampal Blood Flow in Sedentary Older Adults at Genetic Risk for Alzheimer's Disease. Journal of Alzheimer's Disease, 2014, 41, 809-817.	2.6	33
70	Calibrated fMRI in the medial temporal lobe during a memory-encoding task. NeuroImage, 2008, 40, 1495-1502.	4.2	32
71	The development of event-related fMRI designs. NeuroImage, 2012, 62, 1157-1162.	4.2	31
72	Higher Brain Perfusion May Not Support Memory Functions in Cognitively Normal Carriers of the ApoE ε4 Allele Compared to Non-Carriers. Frontiers in Aging Neuroscience, 2016, 8, 151.	3.4	31

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73	Dynamic association between perfusion and white matter integrity across time since injury in Veterans with history of TBI. NeuroImage: Clinical, 2017, 14, 308-315.	2.7	31
74	Vigilance Effects in Resting-State fMRI. Frontiers in Neuroscience, 2020, 14, 321.	2.8	31
75	Dose-dependent association of accelerometer-measured physical activity and sedentary time with brain perfusion in aging. Experimental Gerontology, 2019, 125, 110679.	2.8	28
76	SNR and functional sensitivity of BOLD and perfusion-based fMRI using arterial spin labeling with spiral SENSE at 3 T. Magnetic Resonance Imaging, 2008, 26, 513-522.	1.8	27
77	Accurate reconstruction of temporal correlation for neuronal sources using the enhanced dual-core MEG beamformer. NeuroImage, 2011, 56, 1918-1928.	4.2	26
78	Resting-State fMRI Activity Predicts Unsupervised Learning and Memory in an Immersive Virtual Reality Environment. PLoS ONE, 2014, 9, e109622.	2.5	26
79	Optimal phase difference reconstruction: comparison of two methods. Magnetic Resonance Imaging, 2008, 26, 142-145.	1.8	24
80	Effects of HIV Infection, methamphetamine dependence and age on cortical thickness, area and volume. NeuroImage: Clinical, 2018, 20, 1044-1052.	2.7	24
81	Nuisance effects and the limitations of nuisance regression in dynamic functional connectivity fMRI. NeuroImage, 2019, 184, 1005-1031.	4.2	24
82	Short-term apparent brain tissue changes are contributed by cerebral blood flow alterations. PLoS ONE, 2017, 12, e0182182.	2.5	23
83	APOE modifies the interaction of entorhinal cerebral blood flow and cortical thickness on memory function in cognitively normal older adults. NeuroImage, 2019, 202, 116162.	4.2	22
84	Imaging periodic currents using alternating balanced steady€state free precession. Magnetic Resonance in Medicine, 2008, 59, 140-148.	3.0	21
85	Atypical Relationships Between Spontaneous EEG and fMRI Activity in Autism. Brain Connectivity, 2020, 10, 18-28.	1.7	21
86	The Cerebral Blood Flow Biomedical Informatics Research Network (CBFBIRN) database and analysis pipeline for arterial spin labeling MRI data. Frontiers in Neuroinformatics, 2013, 7, 21.	2.5	20
87	Temporal profile of brain response to alprazolam in patients with generalized anxiety disorder. Psychiatry Research - Neuroimaging, 2015, 233, 394-401.	1.8	20
88	Increased Cerebral Blood Flow Associated with Better Response Inhibition in Bipolar Disorder. Journal of the International Neuropsychological Society, 2015, 21, 105-115.	1.8	19
89	The Effects of Global Signal Regression on Estimates of Resting-State Blood Oxygen-Level-Dependent Functional Magnetic Resonance Imaging and Electroencephalogram Vigilance Correlations. Brain Connectivity, 2018, 8, 618-627.	1.7	18
90	Developmental changes in resting and functional cerebral blood flow and their relationship to the BOLD response. Human Brain Mapping, 2014, 35, 3188-3198.	3.6	17

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91	Elevated cerebrovascular resistance index is associated with cognitive dysfunction in the very-old. Alzheimer's Research and Therapy, 2015, 7, 3.	6.2	16
92	An Introduction to Normalization and Calibration Methods in Functional MRI. Psychometrika, 2013, 78, 308-321.	2.1	15
93	Rectified Gaussian Scale Mixtures and the Sparse Non-Negative Least Squares Problem. IEEE Transactions on Signal Processing, 2018, 66, 3124-3139.	5.3	15
94	Respiratory, cardiac, EEG, BOLD signals and functional connectivity over multiple microsleep episodes. NeuroImage, 2021, 237, 118129.	4.2	13
95	Caffeine increases the linearity of the visual BOLD response. NeuroImage, 2010, 49, 2311-2317.	4.2	12
96	Reprint of 'Noise contributions to the fMRI signal: An Overview'. NeuroImage, 2017, 154, 4-14.	4.2	11
97	The effects of nicotine and cannabis co-use during adolescence and young adulthood on white matter cerebral blood flow estimates. Psychopharmacology, 2020, 237, 3615-3624.	3.1	11
98	Noninvasive measurement of the cerebral blood flow response in human lateral geniculate nucleus with arterial spin labeling fMRI. Human Brain Mapping, 2008, 29, 1207-1214.	3.6	10
99	Greater preference consistency during the Willingness-to-Pay task is related to higher resting state connectivity between the ventromedial prefrontal cortex and the ventral striatum. Brain Imaging and Behavior, 2016, 10, 730-738.	2.1	10
100	Aberrant Cerebral Blood Flow in Response to Hunger and Satiety in Women Remitted from Anorexia Nervosa. Frontiers in Nutrition, 2017, 4, 32.	3.7	9
101	Functional connectome fingerprinting using shallow feedforward neural networks. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	9
102	Defining Hypoperfusion in Chronic Aphasia: An Individualized Thresholding Approach. Brain Sciences, 2021, 11, 491.	2.3	9
103	Increased diffusion sensitity with hyperechos. Magnetic Resonance in Medicine, 2003, 49, 1098-1105.	3.0	8
104	Interaction of APOE, cerebral blood flow, and cortical thickness in the entorhinal cortex predicts memory decline. Brain Imaging and Behavior, 2020, 14, 369-382.	2.1	8
105	The Effects of Nicotine and Cannabis Co-Use During Late Adolescence on White Matter Fiber Tract Microstructure. Journal of Studies on Alcohol and Drugs, 2022, 83, 287-295.	1.0	7
106	High efficiency multishot interleaved spiral in/out: Acquisition for high-resolution BOLD fMRI. Magnetic Resonance in Medicine, 2013, 70, 420-428.	3.0	6
107	Game controller modification for fMRI hyperscanning experiments in a cooperative virtual reality environment. MethodsX, 2014, 1, 292-299.	1.6	6
108	Quality Assurance in Functional MRI. Biological Magnetic Resonance, 2015, , 245-270.	0.4	6

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109	The Cerebral Blood Flow Biomedical Informatics Research Network (CBFBIRN) data repository. NeuroImage, 2016, 124, 1202-1207.	4.2	5
110	Anterior Cingulate Structure and Perfusion is Associated with Cerebrospinal Fluid Tau among Cognitively Normal Older Adult APOE É›4 Carriers. Journal of Alzheimer's Disease, 2020, 73, 87-101.	2.6	5
111	Effects of Sub-threshold Transcutaneous Auricular Vagus Nerve Stimulation on Cingulate Cortex and Insula Resting-state Functional Connectivity. Frontiers in Human Neuroscience, 2022, 16, 862443.	2.0	5
112	MRI in systems medicine. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2020, 12, e1463.	6.6	4
113	Effects of sub-threshold transcutaneous auricular vagus nerve stimulation on cerebral blood flow. Scientific Reports, 2021, 11, 24018.	3.3	4
114	Nuisance effects in inter-scan functional connectivity estimates before and after nuisance regression. NeuroImage, 2019, 202, 116005.	4.2	3
115	Adaptation of a Haptic Robot in a 3T fMRI. Journal of Visualized Experiments, 2011, , .	0.3	2
116	Resting-state fMRI activity in the basal ganglia predicts unsupervised learning performance in a virtual reality environment. , 2013, , .		2
117	On multiple alternating steady states induced by periodic spin phase perturbation waveforms. Magnetic Resonance in Medicine, 2012, 67, 1412-1418.	3.0	1
118	A geometric view of signal sensitivity metrics in multi-echo fMRI. NeuroImage, 2022, 259, 119409.	4.2	1
119	070 Respiratory, cardiac, EEG, BOLD signals and functional connectivity over multiple microsleep episodes. Sleep, 2021, 44, A29-A29.	1.1	0
120	The Effects of Nicotine and Cannabis Co-Use During Late Adolescence on White Matter Fiber Tract Microstructure.. Journal of Studies on Alcohol and Drugs, 2022, 83, 287-295.	1.0	0