

# Thomas T Liu

## List of Publications by Year in descending order

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120  
papers

12,116  
citations

38660

50  
h-index

30848

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. <i>NeuroImage</i> , 2007, 37, 90-101.	2.1	3,466
2	Modeling the hemodynamic response to brain activation. <i>NeuroImage</i> , 2004, 23, S220-S233.	2.1	1,023
3	The global signal in fMRI: Nuisance or Information?. <i>NeuroImage</i> , 2017, 150, 213-229.	2.1	339
4	Cortical depth-specific microvascular dilation underlies laminar differences in blood oxygenation level-dependent functional MRI signal. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 15246-15251.	3.3	267
5	Detection Power, Estimation Efficiency, and Predictability in Event-Related fMRI. <i>NeuroImage</i> , 2001, 13, 759-773.	2.1	251
6	The amplitude of the resting-state fMRI global signal is related to EEG vigilance measures. <i>NeuroImage</i> , 2013, 83, 983-990.	2.1	248
7	Coupling of cerebral blood flow and oxygen consumption during physiological activation and deactivation measured with fMRI. <i>NeuroImage</i> , 2004, 23, 148-155.	2.1	230
8	Noise contributions to the fMRI signal: An overview. <i>NeuroImage</i> , 2016, 143, 141-151.	2.1	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. <i>NeuroImage</i> , 2004, 21, 144-153.	2.1	226
10	Velocity-selective arterial spin labeling. <i>Magnetic Resonance in Medicine</i> , 2006, 55, 1334-1341.	1.9	224
11	A signal processing model for arterial spin labeling functional MRI. <i>NeuroImage</i> , 2005, 24, 207-215.	2.1	202
12	Function biomedical informatics research network recommendations for prospective multicenter functional MRI studies. <i>Journal of Magnetic Resonance Imaging</i> , 2012, 36, 39-54.	1.9	201
13	Nonlinear temporal dynamics of the cerebral blood flow response. <i>Human Brain Mapping</i> , 2001, 13, 1-12.	1.9	183
14	Measurement of cerebral perfusion with arterial spin labeling: Part 1. Methods. <i>Journal of the International Neuropsychological Society</i> , 2007, 13, 517-25.	1.2	173
15	Cerebral perfusion and oxygenation differences in Alzheimer's disease risk. <i>Neurobiology of Aging</i> , 2009, 30, 1737-1748.	1.5	171
16	Caffeine-induced uncoupling of cerebral blood flow and oxygen metabolism: A calibrated BOLD fMRI study. <i>NeuroImage</i> , 2008, 40, 237-247.	2.1	148
17	Anti-correlated networks, global signal regression, and the effects of caffeine in resting-state functional MRI. <i>NeuroImage</i> , 2012, 63, 356-364.	2.1	130
18	An arteriolar compliance model of the cerebral blood flow response to neural stimulus. <i>NeuroImage</i> , 2005, 25, 1100-1111.	2.1	124

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19	The Function Biomedical Informatics Research Network Data Repository. <i>NeuroImage</i> , 2016, 124, 1074-1079.	2.1	114
20	Caffeine alters the temporal dynamics of the visual BOLD response. <i>NeuroImage</i> , 2004, 23, 1402-1413.	2.1	113
21	Efficiency, power, and entropy in event-related fMRI with multiple trial types. <i>NeuroImage</i> , 2004, 21, 401-413.	2.1	112
22	Neurovascular factors in resting-state functional MRI. <i>NeuroImage</i> , 2013, 80, 339-348.	2.1	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. <i>NeuroImage</i> , 2016, 124, 24-31.	2.1	107
24	Efficiency, power, and entropy in event-related FMRI with multiple trial types. <i>NeuroImage</i> , 2004, 21, 387-400.	2.1	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. <i>NeuroImage</i> , 2012, 61, 1067-1082.	2.1	101
26	Physiological noise reduction for arterial spin labeling functional MRI. <i>NeuroImage</i> , 2006, 31, 1104-1115.	2.1	100
27	Cerebral blood flow and BOLD responses to a memory encoding task: A comparison between healthy young and elderly adults. <i>NeuroImage</i> , 2007, 37, 430-439.	2.1	99
28	Measurement of cerebral perfusion with arterial spin labeling: Part 2. Applications. <i>Journal of the International Neuropsychological Society</i> , 2007, 13, 526-38.	1.2	93
29	Underconnected, But Not Broken? Dynamic Functional Connectivity MRI Shows Underconnectivity in Autism Is Linked to Increased Intra-Individual Variability Across Time. <i>Brain Connectivity</i> , 2016, 6, 403-414.	0.8	93
30	Interaction of Age and APOE Genotype on Cerebral Blood Flow at Rest. <i>Journal of Alzheimer's Disease</i> , 2013, 34, 921-935.	1.2	92
31	Multiphase pseudocontinuous arterial spin labeling (MPâ€PCASL) for robust quantification of cerebral blood flow. <i>Magnetic Resonance in Medicine</i> , 2010, 64, 799-810.	1.9	90
32	Dynamic functional connectivity in bipolar disorder is associated with executive function and processing speed: A preliminary study.. <i>Neuropsychology</i> , 2017, 31, 73-83.	1.0	89
33	A geometric view of global signal confounds in resting-state functional MRI. <i>NeuroImage</i> , 2012, 59, 2339-2348.	2.1	85
34	Cerebral Blood Flow Measurements in Adults: A Review on the Effects of Dietary Factors and Exercise. <i>Nutrients</i> , 2018, 10, 530.	1.7	84
35	Reduced Regional Cerebral Blood Flow Relates to Poorer Cognition in Older Adults With Type 2 Diabetes. <i>Frontiers in Aging Neuroscience</i> , 2018, 10, 270.	1.7	83
36	Differential age effects on cerebral blood flow and BOLD response to encoding: Associations with cognition and stroke risk. <i>Neurobiology of Aging</i> , 2009, 30, 1276-1287.	1.5	82

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37	Cerebral blood flow predicts differential neurotransmitter activity. <i>Scientific Reports</i> , 2018, 8, 4074.	1.6	78
38	Assessment of Alzheimer's Disease Risk with Functional Magnetic Resonance Imaging: An Arterial Spin Labeling Study. <i>Journal of Alzheimer's Disease</i> , 2012, 31, S59-S74.	1.2	73
39	Interactive effects of vascular risk burden and advanced age on cerebral blood flow. <i>Frontiers in Aging Neuroscience</i> , 2014, 6, 159.	1.7	73
40	Altered Cerebral Perfusion in Executive, Affective, and Motor Networks During Adolescent Depression. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i> , 2013, 52, 1076-1091.e2.	0.3	72
41	Caffeine reduces resting-state BOLD functional connectivity in the motor cortex. <i>NeuroImage</i> , 2009, 46, 56-63.	2.1	69
42	Altered cerebral blood flow and neurocognitive correlates in adolescent cannabis users. <i>Psychopharmacology</i> , 2012, 222, 675-684.	1.5	65
43	Effect of Mild Cognitive Impairment and APOE Genotype on Resting Cerebral Blood Flow and its Association with Cognition. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2012, 32, 1589-1599.	2.4	65
44	Enhanced identification of BOLD-like components with multi-echo simultaneous multi-slice (MESMS) fMRI and multi-echo ICA. <i>NeuroImage</i> , 2015, 112, 43-51.	2.1	65
45	Template-based prediction of vigilance fluctuations in resting-state fMRI. <i>NeuroImage</i> , 2018, 174, 317-327.	2.1	65
46	An arterial spin labeling investigation of cerebral blood flow deficits in chronic stroke survivors. <i>NeuroImage</i> , 2010, 51, 995-1005.	2.1	62
47	Transient states of network connectivity are atypical in autism: A dynamic functional connectivity study. <i>Human Brain Mapping</i> , 2019, 40, 2377-2389.	1.9	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. <i>NeuroImage</i> , 2014, 84, 585-604.	2.1	60
49	A Primer on Functional Magnetic Resonance Imaging. <i>Neuropsychology Review</i> , 2007, 17, 107-125.	2.5	59
50	Distinct thalamocortical network dynamics are associated with the pathophysiology of chronic low back pain. <i>Nature Communications</i> , 2020, 11, 3948.	5.8	59
51	Alcohol Effects on Cerebral Blood Flow in Subjects With Low and High Responses to Alcohol. <i>Alcoholism: Clinical and Experimental Research</i> , 2011, 35, 1034-1040.	1.4	56
52	Caffeine increases the temporal variability of resting-state BOLD connectivity in the motor cortex. <i>NeuroImage</i> , 2012, 59, 2994-3002.	2.1	56
53	A Survey of the Sources of Noise in fMRI. <i>Psychometrika</i> , 2013, 78, 396-416.	1.2	56
54	Caffeine reduces the activation extent and contrast-to-noise ratio of the functional cerebral blood flow response but not the BOLD response. <i>NeuroImage</i> , 2008, 42, 296-305.	2.1	54

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55	Global signal regression acts as a temporal downweighting process in resting-state fMRI. <i>NeuroImage</i> , 2017, 152, 602-618.	2.1	53
56	Turbo ASL: Arterial spin labeling with higher SNR and temporal resolution. <i>Magnetic Resonance in Medicine</i> , 2000, 44, 511-515.	1.9	52
57	A pilot study investigating changes in neural processing after mindfulness training in elite athletes. <i>Frontiers in Behavioral Neuroscience</i> , 2015, 9, 229.	1.0	52
58	Inter-subject variability in hypercapnic normalization of the BOLD fMRI response. <i>NeuroImage</i> , 2009, 45, 420-430.	2.1	50
59	Caffeine reduces the initial dip in the visual BOLD response at 3 T. <i>NeuroImage</i> , 2006, 32, 9-15.	2.1	49
60	Awake Mouse Imaging: From Two-Photon Microscopy to Blood Oxygen Level-Dependent Functional Magnetic Resonance Imaging. <i>Biological Psychiatry: Cognitive Neuroscience and Neuroimaging</i> , 2019, 4, 533-542.	1.1	49
61	Trend detection via temporal difference model predicts inferior prefrontal cortex activation during acquisition of advantageous action selection. <i>NeuroImage</i> , 2004, 21, 733-743.	2.1	46
62	A novel method for quantifying scanner instability in fMRI. <i>Magnetic Resonance in Medicine</i> , 2011, 65, 1053-1061.	1.9	46
63	Analysis and Design of Perfusion-Based Event-Related fMRI Experiments. <i>NeuroImage</i> , 2002, 16, 269-282.	2.1	40
64	Bayesian inference of hemodynamic changes in functional arterial spin labeling data. <i>Magnetic Resonance in Medicine</i> , 2006, 56, 891-906.	1.9	39
65	Cortical and Subcortical Cerebrovascular Resistance Index in Mild Cognitive Impairment and Alzheimer's Disease. <i>Journal of Alzheimer's Disease</i> , 2013, 36, 689-698.	1.2	39
66	Caffeine-Induced Global Reductions in Resting-State BOLD Connectivity Reflect Widespread Decreases in MEG Connectivity. <i>Frontiers in Human Neuroscience</i> , 2013, 7, 63.	1.0	37
67	Pseudocontinuous arterial spin labeling with optimized tagging efficiency. <i>Magnetic Resonance in Medicine</i> , 2012, 68, 1135-1144.	1.9	36
68	Cerebral blood flow response to acute hypoxic hypoxia. <i>NMR in Biomedicine</i> , 2013, 26, 1844-1852.	1.6	33
69	Increased Hippocampal Blood Flow in Sedentary Older Adults at Genetic Risk for Alzheimer's Disease. <i>Journal of Alzheimer's Disease</i> , 2014, 41, 809-817.	1.2	33
70	Calibrated fMRI in the medial temporal lobe during a memory-encoding task. <i>NeuroImage</i> , 2008, 40, 1495-1502.	2.1	32
71	The development of event-related fMRI designs. <i>NeuroImage</i> , 2012, 62, 1157-1162.	2.1	31
72	Higher Brain Perfusion May Not Support Memory Functions in Cognitively Normal Carriers of the ApoE $\epsilon$ 4 Allele Compared to Non-Carriers. <i>Frontiers in Aging Neuroscience</i> , 2016, 8, 151.	1.7	31

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73	Dynamic association between perfusion and white matter integrity across time since injury in Veterans with history of TBI. <i>NeuroImage: Clinical</i> , 2017, 14, 308-315.	1.4	31
74	Vigilance Effects in Resting-State fMRI. <i>Frontiers in Neuroscience</i> , 2020, 14, 321.	1.4	31
75	Dose-dependent association of accelerometer-measured physical activity and sedentary time with brain perfusion in aging. <i>Experimental Gerontology</i> , 2019, 125, 110679.	1.2	28
76	SNR and functional sensitivity of BOLD and perfusion-based fMRI using arterial spin labeling with spiral SENSE at 3 T. <i>Magnetic Resonance Imaging</i> , 2008, 26, 513-522.	1.0	27
77	Accurate reconstruction of temporal correlation for neuronal sources using the enhanced dual-core MEG beamformer. <i>NeuroImage</i> , 2011, 56, 1918-1928.	2.1	26
78	Resting-State fMRI Activity Predicts Unsupervised Learning and Memory in an Immersive Virtual Reality Environment. <i>PLoS ONE</i> , 2014, 9, e109622.	1.1	26
79	Optimal phase difference reconstruction: comparison of two methods. <i>Magnetic Resonance Imaging</i> , 2008, 26, 142-145.	1.0	24
80	Effects of HIV Infection, methamphetamine dependence and age on cortical thickness, area and volume. <i>NeuroImage: Clinical</i> , 2018, 20, 1044-1052.	1.4	24
81	Nuisance effects and the limitations of nuisance regression in dynamic functional connectivity fMRI. <i>NeuroImage</i> , 2019, 184, 1005-1031.	2.1	24
82	Short-term apparent brain tissue changes are contributed by cerebral blood flow alterations. <i>PLoS ONE</i> , 2017, 12, e0182182.	1.1	23
83	APOE modifies the interaction of entorhinal cerebral blood flow and cortical thickness on memory function in cognitively normal older adults. <i>NeuroImage</i> , 2019, 202, 116162.	2.1	22
84	Imaging periodic currents using alternating balanced steady-state free precession. <i>Magnetic Resonance in Medicine</i> , 2008, 59, 140-148.	1.9	21
85	Atypical Relationships Between Spontaneous EEG and fMRI Activity in Autism. <i>Brain Connectivity</i> , 2020, 10, 18-28.	0.8	21
86	The Cerebral Blood Flow Biomedical Informatics Research Network (CBFBIRN) database and analysis pipeline for arterial spin labeling MRI data. <i>Frontiers in Neuroinformatics</i> , 2013, 7, 21.	1.3	20
87	Temporal profile of brain response to alprazolam in patients with generalized anxiety disorder. <i>Psychiatry Research - Neuroimaging</i> , 2015, 233, 394-401.	0.9	20
88	Increased Cerebral Blood Flow Associated with Better Response Inhibition in Bipolar Disorder. <i>Journal of the International Neuropsychological Society</i> , 2015, 21, 105-115.	1.2	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. <i>Brain Connectivity</i> , 2018, 8, 618-627.	0.8	18
90	Developmental changes in resting and functional cerebral blood flow and their relationship to the BOLD response. <i>Human Brain Mapping</i> , 2014, 35, 3188-3198.	1.9	17

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91	Elevated cerebrovascular resistance index is associated with cognitive dysfunction in the very-old. <i>Alzheimer's Research and Therapy</i> , 2015, 7, 3.	3.0	16
92	An Introduction to Normalization and Calibration Methods in Functional MRI. <i>Psychometrika</i> , 2013, 78, 308-321.	1.2	15
93	Rectified Gaussian Scale Mixtures and the Sparse Non-Negative Least Squares Problem. <i>IEEE Transactions on Signal Processing</i> , 2018, 66, 3124-3139.	3.2	15
94	Respiratory, cardiac, EEG, BOLD signals and functional connectivity over multiple microsleep episodes. <i>NeuroImage</i> , 2021, 237, 118129.	2.1	13
95	Caffeine increases the linearity of the visual BOLD response. <i>NeuroImage</i> , 2010, 49, 2311-2317.	2.1	12
96	Reprint of 'Noise contributions to the fMRI signal: An Overview'. <i>NeuroImage</i> , 2017, 154, 4-14.	2.1	11
97	The effects of nicotine and cannabis co-use during adolescence and young adulthood on white matter cerebral blood flow estimates. <i>Psychopharmacology</i> , 2020, 237, 3615-3624.	1.5	11
98	Noninvasive measurement of the cerebral blood flow response in human lateral geniculate nucleus with arterial spin labeling fMRI. <i>Human Brain Mapping</i> , 2008, 29, 1207-1214.	1.9	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. <i>Brain Imaging and Behavior</i> , 2016, 10, 730-738.	1.1	10
100	Aberrant Cerebral Blood Flow in Response to Hunger and Satiety in Women Remitted from Anorexia Nervosa. <i>Frontiers in Nutrition</i> , 2017, 4, 32.	1.6	9
101	Functional connectome fingerprinting using shallow feedforward neural networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	9
102	Defining Hypoperfusion in Chronic Aphasia: An Individualized Thresholding Approach. <i>Brain Sciences</i> , 2021, 11, 491.	1.1	9
103	Increased diffusion sensitivity with hyperechos. <i>Magnetic Resonance in Medicine</i> , 2003, 49, 1098-1105.	1.9	8
104	Interaction of APOE, cerebral blood flow, and cortical thickness in the entorhinal cortex predicts memory decline. <i>Brain Imaging and Behavior</i> , 2020, 14, 369-382.	1.1	8
105	The Effects of Nicotine and Cannabis Co-Use During Late Adolescence on White Matter Fiber Tract Microstructure. <i>Journal of Studies on Alcohol and Drugs</i> , 2022, 83, 287-295.	0.6	7
106	High efficiency multishot interleaved spiral acquisition for high-resolution BOLD fMRI. <i>Magnetic Resonance in Medicine</i> , 2013, 70, 420-428.	1.9	6
107	Game controller modification for fMRI hyperscanning experiments in a cooperative virtual reality environment. <i>MethodsX</i> , 2014, 1, 292-299.	0.7	6
108	Quality Assurance in Functional MRI. <i>Biological Magnetic Resonance</i> , 2015, , 245-270.	0.4	6

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109	The Cerebral Blood Flow Biomedical Informatics Research Network (CBFBIRN) data repository. <i>NeuroImage</i> , 2016, 124, 1202-1207.	2.1	5
110	Anterior Cingulate Structure and Perfusion is Associated with Cerebrospinal Fluid Tau among Cognitively Normal Older Adult APOE $\epsilon$ 4 Carriers. <i>Journal of Alzheimer's Disease</i> , 2020, 73, 87-101.	1.2	5
111	Effects of Sub-threshold Transcutaneous Auricular Vagus Nerve Stimulation on Cingulate Cortex and Insula Resting-state Functional Connectivity. <i>Frontiers in Human Neuroscience</i> , 2022, 16, 862443.	1.0	5
112	MRI in systems medicine. <i>Wiley Interdisciplinary Reviews: Systems Biology and Medicine</i> , 2020, 12, e1463.	6.6	4
113	Effects of sub-threshold transcutaneous auricular vagus nerve stimulation on cerebral blood flow. <i>Scientific Reports</i> , 2021, 11, 24018.	1.6	4
114	Nuisance effects in inter-scan functional connectivity estimates before and after nuisance regression. <i>NeuroImage</i> , 2019, 202, 116005.	2.1	3
115	Adaptation of a Haptic Robot in a 3T fMRI. <i>Journal of Visualized Experiments</i> , 2011, , .	0.2	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. <i>Magnetic Resonance in Medicine</i> , 2012, 67, 1412-1418.	1.9	1
118	A geometric view of signal sensitivity metrics in multi-echo fMRI. <i>NeuroImage</i> , 2022, 259, 119409.	2.1	1
119	O70 Respiratory, cardiac, EEG, BOLD signals and functional connectivity over multiple microsleep episodes. <i>Sleep</i> , 2021, 44, A29-A29.	0.6	0
120	The Effects of Nicotine and Cannabis Co-Use During Late Adolescence on White Matter Fiber Tract Microstructure.. <i>Journal of Studies on Alcohol and Drugs</i> , 2022, 83, 287-295.	0.6	0