

# Thomas M Talavage

## List of Publications by Year in descending order

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83  
papers

3,284  
citations

218677

26  
h-index

155660

55  
g-index

85  
all docs

85  
docs citations

85  
times ranked

2489  
citing authors

#	ARTICLE	IF	CITATIONS
1	Coupling between cerebrovascular oscillations and CSF flow fluctuations during wakefulness: An fMRI study. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2022, 42, 1091-1103.	4.3	22
2	A preliminary model of football-related neural stress that integrates metabolomics with transcriptomics and virtual reality. <i>IScience</i> , 2022, 25, 103483.	4.1	2
3	Normalized Brain Tissueâ€œLevel Evaluation of Volumetric Changes of Youth Athletes Participating in Collision Sports. <i>Neurotrauma Reports</i> , 2022, 3, 57-69.	1.4	4
4	Metabolomic response to collegiate football participation: Pre- and Post-season analysis. <i>Scientific Reports</i> , 2022, 12, 3091.	3.3	4
5	American Football Position-Specific Neurometabolic Changes in High School Athletes: A Magnetic Resonance Spectroscopic Study. <i>Journal of Neurotrauma</i> , 2022, 39, 1168-1182.	3.4	4
6	A novel method of quantifying hemodynamic delays to improve hemodynamic response, and CVR estimates in CO2 challenge fMRI. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2021, 41, 0271678X2097858.	4.3	16
7	The Role of the Playing Surface in Mitigating the Deleterious Effects of Head Impacts in Field Sports. , 2021, , 119-144.		1
8	Multimodal Approaches to Preventing Asymptomatic Repetitive Head Injury in Adolescent Athletes. , 2021, , 333-355.		0
9	Development of brain atlases for early-to-middle adolescent collision-sport athletes. <i>Scientific Reports</i> , 2021, 11, 6440.	3.3	1
10	Using carpet plots to analyze transit times of low frequency oscillations in resting state fMRI. <i>Scientific Reports</i> , 2021, 11, 7011.	3.3	5
11	Using Oculomotor Features to Predict Changes in Optic Nerve Sheath Diameter and IMPACT Scores From Contact-Sport Athletes. <i>Frontiers in Neurology</i> , 2021, 12, 584684.	2.4	4
12	Using Dynamics of Eye Movements, Speech Articulation and Brain Activity to Predict and Track mTBI Screening Outcomes. <i>Frontiers in Neurology</i> , 2021, 12, 665338.	2.4	0
13	Evaluation of the Effectiveness of Newer Helmet Designs with Emergent Shell and Padding Technologies Versus Older Helmet Models for Preserving White Matter Following a Season of High School Football. <i>Annals of Biomedical Engineering</i> , 2021, 49, 2863-2874.	2.5	8
14	Integrating multi-omics with neuroimaging and behavior: A preliminary model of dysfunction in football athletes. <i>NeuroImage Reports</i> , 2021, 1, 100032.	1.0	3
15	Distribution of Head Acceleration Events Varies by Position and Play Type in North American Football. <i>Clinical Journal of Sport Medicine</i> , 2021, 31, e245-e250.	1.8	12
16	Accumulation of high magnitude acceleration events predicts cerebrovascular reactivity changes in female high school soccer athletes. <i>Brain Imaging and Behavior</i> , 2020, 14, 164-174.	2.1	28
17	Characterizing nearâ€œinfrared spectroscopy signal under hypercapnia. <i>Journal of Biophotonics</i> , 2020, 13, e202000173.	2.3	5
18	Mitigating the Consequences of Subconcussive Head Injuries. <i>Annual Review of Biomedical Engineering</i> , 2020, 22, 387-407.	12.3	13

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19	Brain Perfusion Mediates the Relationship Between miRNA Levels and Postural Control. <i>Cerebral Cortex Communications</i> , 2020, 1, tgaa078.	1.6	5
20	Evaluation of Impulse Attenuation by Football Helmets in the Frequency Domain. <i>Journal of Biomechanical Engineering</i> , 2020, 142, .	1.3	1
21	Factors affecting peak impact force during soccer headers and implications for the mitigation of head injuries. <i>PLoS ONE</i> , 2020, 15, e0240162.	2.5	10
22	Dependence on subconcussive impacts of brain metabolism in collision sport athletes: an MR spectroscopic study. <i>Brain Imaging and Behavior</i> , 2019, 13, 735-749.	2.1	42
23	Every hit matters: White matter diffusivity changes in high school football athletes are correlated with repetitive head acceleration event exposure. <i>NeuroImage: Clinical</i> , 2019, 24, 101930.	2.7	27
24	Uncovering multi-site identifiability based on resting-state functional connectomes. <i>NeuroImage</i> , 2019, 202, 115967.	4.2	41
25	Impact attenuation of male and female lacrosse helmets using a modal impulse hammer. <i>Journal of Biomechanics</i> , 2019, 95, 109313.	2.1	8
26	Multiple-Input Multiple-Output (MIMO) MRI: Combining Parallel Excitation and Parallel Reception for Enhanced Imaging. <i>IEEE Transactions on Computational Imaging</i> , 2019, 5, 596-605.	4.4	2
27	Diffusion Tensor Imaging in Athletes Sustaining Repetitive Head Impacts: A Systematic Review of Prospective Studies. <i>Journal of Neurotrauma</i> , 2019, 36, 2831-2849.	3.4	42
28	Quantitative evaluation of impact attenuation by football helmets using a modal impulse hammer. <i>Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology</i> , 2019, 233, 301-311.	0.7	4
29	KIAA0319 Genotype Predicts the Number of Past Concussions in a Division I Football Team: A Pilot Study. <i>Journal of Neurotrauma</i> , 2019, 36, 1115-1124.	3.4	7
30	Elevations in MicroRNA Biomarkers in Serum Are Associated with Measures of Concussion, Neurocognitive Function, and Subconcussive Trauma over a Single National Collegiate Athletic Association Division I Season in Collegiate Football Players. <i>Journal of Neurotrauma</i> , 2019, 36, 1343-1351.	3.4	52
31	Subconcussive trauma. <i>Handbook of Clinical Neurology</i> / Edited By P J Vinken and G W Bruyn, 2018, 158, 245-255.	1.8	9
32	Cerebrovascular reactivity changes in asymptomatic female athletes attributable to high school soccer participation. <i>Brain Imaging and Behavior</i> , 2017, 11, 98-112.	2.1	72
33	The effect of repetitive subconcussive collisions on brain integrity in collegiate football players over a single football season: A multi-modal neuroimaging study. <i>NeuroImage: Clinical</i> , 2017, 14, 708-718.	2.7	127
34	Multiple-input multiple-output (MIMO) MRI: An efficient pulse design algorithm to combine parallel excitation and parallel imaging. , 2017, , .		1
35	Reliability and accuracy of helmet-mounted and head-mounted devices used to measure head accelerations. <i>Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology</i> , 2017, 231, 144-153.	0.7	30
36	Effects of Dietary Protein and Fiber at Breakfast on Appetite, ad Libitum Energy Intake at Lunch, and Neural Responses to Visual Food Stimuli in Overweight Adults. <i>Nutrients</i> , 2016, 8, 21.	4.1	12

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37	Reproducibility assessment of brain responses to visual food stimuli in adults with overweight and obesity. <i>Obesity</i> , 2016, 24, 2057-2063.	3.0	13
38	Mean Squared Error (MSE)-Based Excitation Pattern Design for Parallel Transmit and Receive SENSE MRI Image Reconstruction. <i>IEEE Transactions on Computational Imaging</i> , 2016, , 1-1.	4.4	4
39	Information theoretic evaluation of a noiseband-based cochlear implant simulator. <i>Hearing Research</i> , 2016, 333, 185-193.	2.0	5
40	Temporal pattern of acoustic imaging noise asymmetrically modulates activation in the auditory cortex. <i>Hearing Research</i> , 2016, 331, 57-68.	2.0	5
41	fMRI of Visual Working Memory in High School Football Players. <i>Developmental Neuropsychology</i> , 2015, 40, 63-68.	1.4	22
42	Post-Season Neurophysiological Deficits Assessed by ImPACT and fMRI in Athletes Competing in American Football. <i>Developmental Neuropsychology</i> , 2015, 40, 85-91.	1.4	39
43	Sub-Concussive Hit Characteristics Predict Deviant Brain Metabolism in Football Athletes. <i>Developmental Neuropsychology</i> , 2015, 40, 12-17.	1.4	63
44	Cerebrovascular Reactivity Alterations in Asymptomatic High School Football Players. <i>Developmental Neuropsychology</i> , 2015, 40, 80-84.	1.4	40
45	The Role of Location of Subconcussive Head Impacts in fMRI Brain Activation Change. <i>Developmental Neuropsychology</i> , 2015, 40, 74-79.	1.4	31
46	Alteration of Default Mode Network in High School Football Athletes Due to Repetitive Subconcussive Mild Traumatic Brain Injury: A Resting-State Functional Magnetic Resonance Imaging Study. <i>Brain Connectivity</i> , 2015, 5, 91-101.	1.7	173
47	Effects of Repetitive Sub-Concussive Brain Injury on the Functional Connectivity of Default Mode Network in High School Football Athletes. <i>Developmental Neuropsychology</i> , 2015, 40, 51-56.	1.4	69
48	Collegiate women's soccer players suffer greater cumulative head impacts than their high school counterparts. <i>Journal of Biomechanics</i> , 2015, 48, 3720-3723.	2.1	122
49	The Role of Medical Imaging in the Recharacterization of Mild Traumatic Brain Injury Using Youth Sports as a Laboratory. <i>Frontiers in Neurology</i> , 2015, 6, 273.	2.4	35
50	Detecting Neurocognitive and Neurophysiological Changes as a Result of Subconcussive Blows Among High School Football Athletes. <i>Athletic Training &amp; Sports Health Care</i> , 2014, 6, 119-127.	0.4	43
51	Auditory neuroimaging with fMRI and PET. <i>Hearing Research</i> , 2014, 307, 4-15.	2.0	30
52	Functionally-Detected Cognitive Impairment in High School Football Players without Clinically-Diagnosed Concussion. <i>Journal of Neurotrauma</i> , 2014, 31, 327-338.	3.4	489
53	MR Spectroscopic Evidence of Brain Injury in the Non-Diagnosed Collision Sport Athlete. <i>Developmental Neuropsychology</i> , 2014, 39, 459-473.	1.4	75
54	Functional connectivity in task-negative network of the Deaf: effects of sign language experience. <i>PeerJ</i> , 2014, 2, e446.	2.0	21

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55	Neural correlates of adaptation in freely-moving normal hearing subjects under cochlear implant acoustic simulations. <i>NeuroImage</i> , 2013, 82, 500-509.	4.2	14
56	An fMRI study of nonverbally gifted reading disabled adults: has deficit compensation effected gifted potential?. <i>Frontiers in Human Neuroscience</i> , 2013, 7, 507.	2.0	13
57	Beyond Phonological Processing Deficits in Adult Dyslexics: Atypical fMRI Activation Patterns for Spatial Problem Solving. <i>Developmental Neuropsychology</i> , 2012, 37, 617-635.	1.4	30
58	Using functional MRI to study auditory comprehension. <i>Imaging in Medicine</i> , 2012, 4, 137-143.	0.0	1
59	Biomechanical correlates of symptomatic and asymptomatic neurophysiological impairment in high school football. <i>Journal of Biomechanics</i> , 2012, 45, 1265-1272.	2.1	240
60	Event segmentation in a visual language: Neural bases of processing American Sign Language predicates. <i>NeuroImage</i> , 2012, 59, 4094-4101.	4.2	64
61	How challenges in auditory fMRI led to general advancements for the field. <i>NeuroImage</i> , 2012, 62, 641-647.	4.2	18
62	Hemodynamic Imaging: Functional Magnetic Resonance Imaging. <i>Springer Handbook of Auditory Research</i> , 2012, , 129-162.	0.7	0
63	Reproducibility of fMRI activations associated with auditory sentence comprehension. <i>NeuroImage</i> , 2011, 54, 2138-2155.	4.2	26
64	Effects of combining field strengths on auditory functional MRI group analysis: 1.5T and 3T. <i>Journal of Magnetic Resonance Imaging</i> , 2011, 34, 1480-1488.	3.4	7
65	Measurement of auditory hemodynamic response function due to different temporal patterns of imaging acoustic noise using functional magnetic resonance imaging. , 2011, , .		0
66	Neural adaptation and perceptual learning using a portable real-time cochlear implant simulator in natural environments. , 2011, 2011, 1145-8.		4
67	A Method for Delivering Spatio-Temporally Focused Energy to a Dynamically Adjustable Target Along a Waveguiding Structure. <i>IEEE Transactions on Signal Processing</i> , 2010, 58, 1416-1426.	5.3	0
68	Modeling hemodynamic responses in auditory cortex at 1.5T using variable duration imaging acoustic noise. <i>NeuroImage</i> , 2010, 49, 3027-3038.	4.2	18
69	Characterizing Response to Elemental Unit of Acoustic Imaging Noise: An fMRI Study. <i>IEEE Transactions on Biomedical Engineering</i> , 2009, 56, 1919-1928.	4.2	8
70	Signal fluctuations induced by non-C <sub>1</sub> -related confounds in variable TR fMRI experiments. <i>Journal of Magnetic Resonance Imaging</i> , 2009, 29, 1234-1239.	3.4	2
71	New imaging techniques in the diagnosis of multiple sclerosis. <i>Expert Opinion on Medical Diagnostics</i> , 2008, 2, 1055-1065.	1.6	16
72	Modeling and Activation Detection in fMRI Data Analysis. , 2007, , .		1

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73	An improved space-time adaptive processing model: A spatiotemporal approach for fMRI. , 2007, , .		1
74	Observations from Chaotic Analysis of Sleep EEGs. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
75	Experimental design and analysis in functional MRI. , 2004, 2004, 5226-9.		0
76	Tonotopic Organization in Human Auditory Cortex Revealed by Progressions of Frequency Sensitivity. Journal of Neurophysiology, 2004, 91, 1282-1296.	1.8	281
77	Nonlinearity of FMRI responses in human auditory cortex. Human Brain Mapping, 2004, 22, 216-228.	3.6	45
78	A theoretical, continuous alternative to the discrete electrode array. International Congress Series, 2004, 1273, 56-59.	0.2	1
79	Frequency-dependent responses exhibited by multiple regions in human auditory cortex. Hearing Research, 2000, 150, 225-244.	2.0	155
80	Quantitative assessment of auditory cortex responses induced by imager acoustic noise. Human Brain Mapping, 1999, 7, 79-88.	3.6	117
81	Improved auditory cortex imaging using clustered volume acquisitions. Human Brain Mapping, 1999, 7, 89-97.	3.6	314
82	Improved auditory cortex imaging using clustered volume acquisitions. , 1999, 7, 89.		1
83	Improved auditory cortex imaging using clustered volume acquisitions. Human Brain Mapping, 1999, 7, 89-97.	3.6	4