Thomas M Talavage

List of Publications by Year
in descending order

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83	3,284	218677	155660
papers	citations	26 h-index	55 g-index

85	85	85	2489
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Functionally-Detected Cognitive Impairment in High School Football Players without Clinically-Diagnosed Concussion. Journal of Neurotrauma, 2014, 31, 327-338.	3.4	489
2	Improved auditory cortex imaging using clustered volume acquisitions. Human Brain Mapping, 1999, 7, 89-97.	3.6	314
3	Tonotopic Organization in Human Auditory Cortex Revealed by Progressions of Frequency Sensitivity. Journal of Neurophysiology, 2004, 91, 1282-1296.	1.8	281
4	Biomechanical correlates of symptomatic and asymptomatic neurophysiological impairment in high school football. Journal of Biomechanics, 2012, 45, 1265-1272.	2.1	240
5	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. Brain Connectivity, 2015, 5, 91-101.	1.7	173
6	Frequency-dependent responses exhibited by multiple regions in human auditory cortex. Hearing Research, 2000, 150, 225-244.	2.0	155
7	The effect of repetitive subconcussive collisions on brain integrity in collegiate football players over a single football season: A multi-modal neuroimaging study. NeuroImage: Clinical, 2017, 14, 708-718.	2.7	127
8	Collegiate women's soccer players suffer greater cumulative head impacts than their high school counterparts. Journal of Biomechanics, 2015, 48, 3720-3723.	2.1	122
9	Quantitative assessment of auditory cortex responses induced by imager acoustic noise. Human Brain Mapping, 1999, 7, 79-88.	3.6	117
10	MR Spectroscopic Evidence of Brain Injury in the Non-Diagnosed Collision Sport Athlete. Developmental Neuropsychology, 2014, 39, 459-473.	1.4	75
11	Cerebrovascular reactivity changes in asymptomatic female athletes attributable to high school soccer participation. Brain Imaging and Behavior, 2017, 11, 98-112.	2.1	72
12	Effects of Repetitive Sub-Concussive Brain Injury on the Functional Connectivity of Default Mode Network in High School Football Athletes. Developmental Neuropsychology, 2015, 40, 51-56.	1.4	69
13	Event segmentation in a visual language: Neural bases of processing American Sign Language predicates. NeuroImage, 2012, 59, 4094-4101.	4.2	64
14	Sub-Concussive Hit Characteristics Predict Deviant Brain Metabolism in Football Athletes. Developmental Neuropsychology, 2015, 40, 12-17.	1.4	63
15	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. Journal of Neurotrauma, 2019, 36, 1343-1351.	3.4	52
16	Nonlinearity of FMRI responses in human auditory cortex. Human Brain Mapping, 2004, 22, 216-228.	3.6	45
17	Detecting Neurocognitive and Neurophysiological Changes as a Result of Subconcussive Blows Among High School Football Athletes. Athletic Training & Sports Health Care, 2014, 6, 119-127.	0.4	43
18	Dependence on subconcussive impacts of brain metabolism in collision sport athletes: an MR spectroscopic study. Brain Imaging and Behavior, 2019, 13, 735-749.	2.1	42

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19	Diffusion Tensor Imaging in Athletes Sustaining Repetitive Head Impacts: A Systematic Review of Prospective Studies. Journal of Neurotrauma, 2019, 36, 2831-2849.	3.4	42
20	Uncovering multi-site identifiability based on resting-state functional connectomes. NeuroImage, 2019, 202, 115967.	4.2	41
21	Cerebrovascular Reactivity Alterations in Asymptomatic High School Football Players. Developmental Neuropsychology, 2015, 40, 80-84.	1.4	40
22	Post-Season Neurophysiological Deficits Assessed by ImPACT and fMRI in Athletes Competing in American Football. Developmental Neuropsychology, 2015, 40, 85-91.	1.4	39
23	The Role of Medical Imaging in the Recharacterization of Mild Traumatic Brain Injury Using Youth Sports as a Laboratory. Frontiers in Neurology, 2015, 6, 273.	2.4	35
24	The Role of Location of Subconcussive Head Impacts in fMRI Brain Activation Change. Developmental Neuropsychology, 2015, 40, 74-79.	1.4	31
25	Beyond Phonological Processing Deficits in Adult Dyslexics: Atypical fMRI Activation Patterns for Spatial Problem Solving. Developmental Neuropsychology, 2012, 37, 617-635.	1.4	30
26	Auditory neuroimaging with fMRI and PET. Hearing Research, 2014, 307, 4-15.	2.0	30
27	Reliability and accuracy of helmet-mounted and head-mounted devices used to measure head accelerations. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2017, 231, 144-153.	0.7	30
28	Accumulation of high magnitude acceleration events predicts cerebrovascular reactivity changes in female high school soccer athletes. Brain Imaging and Behavior, 2020, 14, 164-174.	2.1	28
29	Every hit matters: White matter diffusivity changes in high school football athletes are correlated with repetitive head acceleration event exposure. NeuroImage: Clinical, 2019, 24, 101930.	2.7	27
30	Reproducibility of fMRI activations associated with auditory sentence comprehension. NeuroImage, 2011, 54, 2138-2155.	4.2	26
31	fMRI of Visual Working Memory in High School Football Players. Developmental Neuropsychology, 2015, 40, 63-68.	1.4	22
32	Coupling between cerebrovascular oscillations and CSF flow fluctuations during wakefulness: An fMRI study. Journal of Cerebral Blood Flow and Metabolism, 2022, 42, 1091-1103.	4.3	22
33	Functional connectivity in task-negative network of the Deaf: effects of sign language experience. PeerJ, 2014, 2, e446.	2.0	21
34	Modeling hemodynamic responses in auditory cortex at 1.5ÂT using variable duration imaging acoustic noise. NeuroImage, 2010, 49, 3027-3038.	4.2	18
35	How challenges in auditory fMRI led to general advancements for the field. NeuroImage, 2012, 62, 641-647.	4.2	18
36	New imaging techniques in the diagnosis of multiple sclerosis. Expert Opinion on Medical Diagnostics, 2008, 2, 1055-1065.	1.6	16

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37	A novel method of quantifying hemodynamic delays to improve hemodynamic response, and CVR estimates in CO2 challenge fMRI. Journal of Cerebral Blood Flow and Metabolism, 2021, 41, 0271678X2097858.	4.3	16
38	Neural correlates of adaptation in freely-moving normal hearing subjects under cochlear implant acoustic simulations. NeuroImage, 2013, 82, 500-509.	4.2	14
39	An fMRI study of nonverbally gifted reading disabled adults: has deficit compensation effected gifted potential?. Frontiers in Human Neuroscience, 2013, 7, 507.	2.0	13
40	Reproducibility assessment of brain responses to visual food stimuli in adults with overweight and obesity. Obesity, 2016, 24, 2057-2063.	3.0	13
41	Mitigating the Consequences of Subconcussive Head Injuries. Annual Review of Biomedical Engineering, 2020, 22, 387-407.	12.3	13
42	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. Nutrients, 2016, 8, 21.	4.1	12
43	Distribution of Head Acceleration Events Varies by Position and Play Type in North American Football. Clinical Journal of Sport Medicine, 2021, 31, e245-e250.	1.8	12
44	Factors affecting peak impact force during soccer headers and implications for the mitigation of head injuries. PLoS ONE, 2020, 15, e0240162.	2.5	10
45	Subconcussive trauma. Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn, 2018, 158, 245-255.	1.8	9
46	Characterizing Response to Elemental Unit of Acoustic Imaging Noise: An fMRI Study. IEEE Transactions on Biomedical Engineering, 2009, 56, 1919-1928.	4.2	8
47	Impact attenuation of male and female lacrosse helmets using a modal impulse hammer. Journal of Biomechanics, 2019, 95, 109313.	2.1	8
48	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. Annals of Biomedical Engineering, 2021, 49, 2863-2874.	2.5	8
49	Effects of combining field strengths on auditory functional MRI group analysis: 1.5T and 3T. Journal of Magnetic Resonance Imaging, 2011, 34, 1480-1488.	3.4	7
50	KIAA0319 Genotype Predicts the Number of Past Concussions in a Division I Football Team: A Pilot Study. Journal of Neurotrauma, 2019, 36, 1115-1124.	3.4	7
51	Information theoretic evaluation of a noiseband-based cochlear implant simulator. Hearing Research, 2016, 333, 185-193.	2.0	5
52	Temporal pattern of acoustic imaging noise asymmetrically modulates activation in the auditory cortex. Hearing Research, 2016, 331, 57-68.	2.0	5
53	Characterizing <scp>nearâ€infrared</scp> spectroscopy signal under hypercapnia. Journal of Biophotonics, 2020, 13, e202000173.	2.3	5
54	Using carpet plots to analyze transit times of low frequency oscillations in resting state fMRI. Scientific Reports, 2021, 11, 7011.	3.3	5

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55	Brain Perfusion Mediates the Relationship Between miRNA Levels and Postural Control. Cerebral Cortex Communications, 2020, 1, tgaa078.	1.6	5
56	Neural adaptation and perceptual learning using a portable real-time cochlear implant simulator in natural environments. , 2011, 2011, 1145-8.		4
57	Mean Squared Error (MSE)-Based Excitation Pattern Design for Parallel Transmit and Receive SENSE MRI Image Reconstruction. IEEE Transactions on Computational Imaging, 2016, , 1-1.	4.4	4
58	Quantitative evaluation of impact attenuation by football helmets using a modal impulse hammer. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2019, 233, 301-311.	0.7	4
59	Using Oculomotor Features to Predict Changes in Optic Nerve Sheath Diameter and ImPACT Scores From Contact-Sport Athletes. Frontiers in Neurology, 2021, 12, 584684.	2.4	4
60	Improved auditory cortex imaging using clustered volume acquisitions. Human Brain Mapping, 1999, 7, 89-97.	3.6	4
61	Normalized Brain Tissueâ€“Level Evaluation of Volumetric Changes of Youth Athletes Participating in Collision Sports. Neurotrauma Reports, 2022, 3, 57-69.	1.4	4
62	Metabolomic response to collegiate football participation: Pre- and Post-season analysis. Scientific Reports, 2022, 12, 3091.	3.3	4
63	American Football Position-Specific Neurometabolic Changes in High School Athletes: A Magnetic Resonance Spectroscopic Study. Journal of Neurotrauma, 2022, 39, 1168-1182.	3.4	4
64	Integrating multi-omics with neuroimaging and behavior: A preliminary model of dysfunction in football athletes. NeuroImage Reports, 2021, 1, 100032.	1.0	3
65	Signal fluctuations induced by nonâ€T₁â€related confounds in variable TR fMRI experiments. Journal of Magnetic Resonance Imaging, 2009, 29, 1234-1239.	3.4	2
66	Multiple-Inputâ€“Multiple-Output (MIMO) MRI: Combining Parallel Excitation and Parallel Reception for Enhanced Imaging. IEEE Transactions on Computational Imaging, 2019, 5, 596-605.	4.4	2
67	A preliminary model of football-related neural stress that integrates metabolomics with transcriptomics and virtual reality. IScience, 2022, 25, 103483.	4.1	2
68	A theoretical, continuous alternative to the discrete electrode array. International Congress Series, 2004, 1273, 56-59.	0.2	1
69	Modeling and Activation Detection in fMRI Data Analysis. , 2007, , .		1
70	An improved space-time adaptive processing model: A spatiotemporal approach for fMRI. , 2007, , .		1
71	Using functional MRI to study auditory comprehension. Imaging in Medicine, 2012, 4, 137-143.	0.0	1
72	Multiple-input multiple-output (MIMO) MRI: An efficient pulse design algorithm to combine parallel excitation and parallel imaging. , 2017, , .		1

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73	The Role of the Playing Surface in Mitigating the Deleterious Effects of Head Impacts in Field Sports. , 2021, , 119-144.		1
74	Development of brain atlases for early-to-middle adolescent collision-sport athletes. Scientific Reports, 2021, 11, 6440.	3.3	1
75	Improved auditory cortex imaging using clustered volume acquisitions. , 1999, 7, 89.		1
76	Evaluation of Impulse Attenuation by Football Helmets in the Frequency Domain. Journal of Biomechanical Engineering, 2020, 142, .	1.3	1
77	Experimental design and analysis in functional MRI. , 2004, 2004, 5226-9.		0
78	A Method for Delivering Spatio-Temporally Focused Energy to a Dynamically Adjustable Target Along a Waveguiding Structure. IEEE Transactions on Signal Processing, 2010, 58, 1416-1426.	5.3	0
79	Measurement of auditory hemodynamic response function due to different temporal patterns of imaging acoustic noise using functional magnetic resonance imaging. , 2011, , .		0
80	Multimodal Approaches to Preventing Asymptomatic Repetitive Head Injury in Adolescent Athletes. , 2021, , 333-355.		0
81	Using Dynamics of Eye Movements, Speech Articulation and Brain Activity to Predict and Track mTBI Screening Outcomes. Frontiers in Neurology, 2021, 12, 665338.	2.4	0
82	Hemodynamic Imaging: Functional Magnetic Resonance Imaging. Springer Handbook of Auditory Research, 2012, , 129-162.	0.7	0
83	Observations from Chaotic Analysis of Sleep EEGs. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0