Eric A Nauman

List of Publications by Year
in descending order

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Version: 2024-02-01

69	3,009	236612	168136
papers	citations	25 h-index	53 g-index

69	69	69	2654
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.	1.7	489
2	Role of subconcussion in repetitive mild traumatic brain injury. Journal of Neurosurgery, 2013, 119, 1235-1245.	0.9	424
3	Biomechanical correlates of symptomatic and asymptomatic neurophysiological impairment in high school football. Journal of Biomechanics, 2012, 45, 1265-1272.	0.9	240
4	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.	0.8	173
5	Effect of porosity on the fluid flow characteristics and mechanical properties of tantalum scaffolds. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2005, 73B, 315-324.	1.6	168
6	Collegiate women's soccer players suffer greater cumulative head impacts than their high school counterparts. Journal of Biomechanics, 2015, 48, 3720-3723.	0.9	122
7	In vivo articular cartilage deformation: noninvasive quantification of intratissue strain during joint contact in the human knee. Scientific Reports, 2016, 6, 19220.	1.6	105
8	Characterization of cancellous and cortical bone strain in the in vivo mouse tibial loading model using microCT-based finite element analysis. Bone, 2014, 66, 131-139.	1.4	84
9	MR Spectroscopic Evidence of Brain Injury in the Non-Diagnosed Collision Sport Athlete. Developmental Neuropsychology, 2014, 39, 459-473.	1.0	75
10	Development of Ligament-Like Structural Organization and Properties in Cell-Seeded Collagen Scaffolds in vitro. Annals of Biomedical Engineering, 2006, 34, 726-736.	1.3	72
11	Cerebrovascular reactivity changes in asymptomatic female athletes attributable to high school soccer participation. Brain Imaging and Behavior, 2017, 11, 98-112.	1.1	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.	1.0	69
13	Sub-Concussive Hit Characteristics Predict Deviant Brain Metabolism in Football Athletes. Developmental Neuropsychology, 2015, 40, 12-17.	1.0	63
14	Novel Quantitative Biosystem for Modeling Physiological Fluid Shear Stress on Cells. Applied and Environmental Microbiology, 2007, 73, 699-705.	1.4	60
15	Development and characterization of a porous poly(methyl methacrylate) scaffold with controllable modulus and permeability. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2007, 80B, 360-369.	1.6	49
16	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
17	Dependence on subconcussive impacts of brain metabolism in collision sport athletes: an MR spectroscopic study. Brain Imaging and Behavior, 2019, 13, 735-749.	1.1	42
18	Post-Season Neurophysiological Deficits Assessed by ImPACT and fMRI in Athletes Competing in American Football. Developmental Neuropsychology, 2015, 40, 85-91.	1.0	39

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19	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.	1.1	35
20	Bioresorbable Feâ€“Mn and Feâ€“Mnâ€“HA Materials for Orthopedic Implantation: Enhancing Degradation through Porosity Control. Advanced Healthcare Materials, 2017, 6, 1700120.	3.9	33
21	The Role of Location of Subconcussive Head Impacts in fMRI Brain Activation Change. Developmental Neuropsychology, 2015, 40, 74-79.	1.0	31
22	Investigation of porosity on mechanical properties, degradation and in-vitro cytotoxicity limit of Fe30Mn using space holder technique. Materials Science and Engineering C, 2019, 99, 1048-1057.	3.8	31
23	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.	0.4	30
24	Biological variability in biomechanical engineering research: Significance and meta-analysis of current modeling practices. Journal of Biomechanics, 2014, 47, 1241-1250.	0.9	28
25	Accumulation of high magnitude acceleration events predicts cerebrovascular reactivity changes in female high school soccer athletes. Brain Imaging and Behavior, 2020, 14, 164-174.	1.1	28
26	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.	1.4	27
27	Cold-Drawn Bioabsorbable Ferrous and Ferrous Composite Wires: An Evaluation of Mechanical Strength and Fatigue Durability. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2012, 43, 984-994.	1.0	26
28	A biomechanical analysis of finger joint forces and stresses developed during common daily activities. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 131-140.	0.9	24
29	The relationship between bone mineral density and biomechanics in patients with osteoporosis and scoliosis. Osteoporosis International, 2005, 16, 1857-1863.	1.3	22
30	fMRI of Visual Working Memory in High School Football Players. Developmental Neuropsychology, 2015, 40, 63-68.	1.0	22
31	Impact attenuation capabilities of football and lacrosse helmets. Journal of Biomechanics, 2016, 49, 2838-2844.	0.9	22
32	The Ability of an Aftermarket Helmet Add-On Device to Reduce Impact-Force Accelerations During Drop Tests. Journal of Athletic Training, 2017, 52, 802-808.	0.9	20
33	Nanoporous metals for biodegradable implants: Initial bone mesenchymal stem cell adhesion and degradation behavior. Journal of Biomedical Materials Research - Part A, 2016, 104, 1747-1758.	2.1	19
34	The effects of loading-direction and strain-rate on the mechanical behaviors of human frontal skull bone. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 103, 103597.	1.5	16
35	Functional MRI can detect changes in intratissue strains in a full thickness and critical sized ovine cartilage defect model. Journal of Biomechanics, 2018, 66, 18-25.	0.9	16
36	Impact attenuation properties of new and used lacrosse helmets. Journal of Biomechanics, 2015, 48, 3782-3787.	0.9	15

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37	In vivo intervertebral disc deformation: intratissue strain patterns within adjacent discs during flexionâ€“extension. Scientific Reports, 2021, 11, 729.	1.6	14
38	Mitigating the Consequences of Subconcussive Head Injuries. Annual Review of Biomedical Engineering, 2020, 22, 387-407.	5.7	13
39	The effect of football helmet facemasks on impact behavior during linear drop tests. Journal of Biomechanics, 2018, 79, 227-231.	0.9	12
40	Collagen Coating Effects on Feâ€“Mn Bioresorbable Alloys. Journal of Orthopaedic Research, 2020, 38, 523-535.	1.2	12
41	Distribution of Head Acceleration Events Varies by Position and Play Type in North American Football. Clinical Journal of Sport Medicine, 2021, 31, e245-e250.	0.9	12
42	Comparison of intervertebral disc displacements measured under applied loading with MRI at 3.0T and 9.4T. Journal of Biomechanics, 2014, 47, 2801-2806.	0.9	11
43	Factors affecting peak impact force during soccer headers and implications for the mitigation of head injuries. PLoS ONE, 2020, 15, e0240162.	1.1	10
44	Contributing Causes of Injury or Death in Grain Entrapment, Engulfment, and Extrication. Journal of Agromedicine, 2017, 22, 159-169.	0.9	9
45	Subconcussive trauma. Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn, 2018, 158, 245-255.	1.0	9
46	Impact attenuation of male and female lacrosse helmets using a modal impulse hammer. Journal of Biomechanics, 2019, 95, 109313.	0.9	8
47	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.	1.3	8
48	KIAA0319 Genotype Predicts the Number of Past Concussions in a Division I Football Team: A Pilot Study. Journal of Neurotrauma, 2019, 36, 1115-1124.	1.7	7
49	Finite deformation elastography of articular cartilage and biomaterials based on imaging and topology optimization. Scientific Reports, 2020, 10, 7980.	1.6	7
50	Characterizing <scp>nearâ€infrared</scp> spectroscopy signal under hypercapnia. Journal of Biophotonics, 2020, 13, e202000173.	1.1	5
51	Brain Perfusion Mediates the Relationship Between miRNA Levels and Postural Control. Cerebral Cortex Communications, 2020, 1, tgaa078.	0.7	5
52	Head acceleration event metrics in youth contact sports more dependent on sport than level of play. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2021, 235, 208-221.	1.0	5
53	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.	0.4	4
54	Normalized Brain Tissueâ€“Level Evaluation of Volumetric Changes of Youth Athletes Participating in Collision Sports. Neurotrauma Reports, 2022, 3, 57-69.	0.5	4

#	Article	IF	Citations
55	Metabolomic response to collegiate football participation: Pre- and Post-season analysis. Scientific Reports, 2022, 12, 3091.	1.6	4
56	American Football Position-Specific Neurometabolic Changes in High School Athletes: A Magnetic Resonance Spectroscopic Study. Journal of Neurotrauma, 2022, 39, 1168-1182.	1.7	4
57	Development of Subject-Specific Geometric Spine Model through Use of Automated Active Contour Segmentation and Kinematic Constraint-Limited Registration. Journal of Digital Imaging, 2011, 24, 926-942.	1.6	2
58	Mechanical Response of Human Muscle at Intermediate Strain Rates. Journal of Biomechanical Engineering, 2019, 141, .	0.6	2
59	A preliminary model of football-related neural stress that integrates metabolomics with transcriptomics and virtual reality. IScience, 2022, 25, 103483.	1.9	2
60	Contribution of Cytoskeletal Elements to the Mechanical Property of Axons. , 2010, , .		1
61	Finite Element Analysis of Six Transcortical Pin Parameters and Their Effect on Boneâ€“Pin Interface Stresses in the Equine Third Metacarpal Bone. Veterinary and Comparative Orthopaedics and Traumatology, 2020, 33, 121-129.	0.2	1
62	Development of brain atlases for early-to-middle adolescent collision-sport athletes. Scientific Reports, 2021, 11, 6440.	1.6	1
63	Evaluation of Impulse Attenuation by Football Helmets in the Frequency Domain. Journal of Biomechanical Engineering, 2020, 142, .	0.6	1
64	An EMG-Based Constitutive Law for Force Generation in Skeletal Muscle - Part I: Model Development. Journal of Biomechanical Engineering, 2022, , .	0.6	1
65	Biomedical Engineering Advancements after Management of Myelomeningocele Study (MOMS): A Narrative Review. International Journal of Medical Students, 0, , .	0.2	1
66	The Effect of Increasing Fracture Site Stiffness on Boneâ€“Pin Interface Stress and Foot Contact Pressure within the Equine Distal Limb Transfixation Cast: A Finite Element Analysis. Veterinary and Comparative Orthopaedics and Traumatology, 2020, 33, 348-355.	0.2	0
67	Multimodal Approaches to Preventing Asymptomatic Repetitive Head Injury in Adolescent Athletes. , 2021, , 333-355.		0
68	311â€…Heading a soccer ball and the characterization of parameters that influence its peak impact force. , 2021, , .		0
69	An EMG-Based Constitutive Law for Force Generation in Skeletal Muscle - Part II: Model Validation On the Ankle Joint Complex. Journal of Biomechanical Engineering, 2022, , .	0.6	0