

Ashley A Weaver

List of Publications by Year in descending order

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Version: 2024-02-01

105
papers

1,703
citations

304743

22
h-index

377865

34
g-index

105
all docs

105
docs citations

105
times ranked

1900
citing authors

#	ARTICLE	IF	CITATIONS
1	Advanced automatic crash notification algorithm for children. <i>Academic Pediatrics</i> , 2022, , .	2.0	0
2	Development and implementation of a time- and computationally-efficient methodology for reconstructing real-world crashes using finite element modeling to improve crash injury research investigations. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2022, 25, 1332-1349.	1.6	1
3	Change in Lumbar Muscle Size and Composition on MRI with Long-Duration Spaceflight. <i>Annals of Biomedical Engineering</i> , 2022, 50, 816-824.	2.5	2
4	Age-based differences in the disability of spine injuries in pediatric and adult motor vehicle crash occupants. <i>Traffic Injury Prevention</i> , 2022, 23, 358-363.	1.4	2
5	Simulated Astronaut Kinematics and Injury Risk for Piloted Lunar Landings and Launches While Standing. <i>Annals of Biomedical Engineering</i> , 2022, 50, 1857-1871.	2.5	4
6	The therian sternum at the lateral somitic frontier: Evolution of a composite structure. <i>Journal of Zoology</i> , 2021, 315, 19-28.	1.7	9
7	Automated Muscle Measurement on Chest CT Predicts All-Cause Mortality in Older Adults From the National Lung Screening Trial. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2021, 76, 277-285.	3.6	29
8	Trunk Skeletal Muscle Changes on CT with Long-Duration Spaceflight. <i>Annals of Biomedical Engineering</i> , 2021, 49, 1257-1266.	2.5	8
9	Effect of Dietary Protein Intake on Bone Mineral Density and Fracture Incidence in Older Adults in the Health, Aging, and Body Composition Study. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2021, 76, 2213-2222.	3.6	7
10	Incorporating Nutrition, Vests, Education, and Strength Training (INVEST) in Bone Health: Trial Design and Methods. <i>Contemporary Clinical Trials</i> , 2021, 104, 106326.	1.8	2
11	Risedronate use to attenuate bone loss following sleeve gastrectomy: Results from a pilot randomized controlled trial. <i>Clinical Obesity</i> , 2021, 11, e12487.	2.0	6
12	Bone, muscle, and sarcopenia. , 2021, , 847-873.		0
13	The relationship of body mass index, belt placement, and abdominopelvic injuries in motor vehicle crashes: A Crash Injury Research and Engineering Network (CIREN) study. <i>Traffic Injury Prevention</i> , 2021, 22, S146-S148.	1.4	1
14	Development of a concise injury severity prediction model for pediatric patients involved in a motor vehicle collision. <i>Traffic Injury Prevention</i> , 2021, 22, S74-S81.	1.4	1
15	Exercise Modality Affects Older Adult CT-Derived Muscle and Bone Loss During Caloric Restriction. <i>Innovation in Aging</i> , 2021, 5, 79-80.	0.1	0
16	Protocol for a pilot randomised controlled trial of zoledronic acid to prevent bone loss following sleeve gastrectomy surgery. <i>BMJ Open</i> , 2021, 11, e057483.	1.9	0
17	Finite element reconstruction of a vehicle-to-pedestrian impact. <i>Traffic Injury Prevention</i> , 2020, 21, S145-S147.	1.4	7
18	Risedronate to Prevent Bone Loss After Sleeve Gastrectomy: Study Design and Feasibility Report of a Pilot Randomized Controlled Trial. <i>JBMR Plus</i> , 2020, 4, e10407.	2.7	9

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19	Estimated crash injury risk and crash characteristics for motorsport drivers. Accident Analysis and Prevention, 2020, 136, 105397.	5.7	8
20	Lumbar Spine Response of Computational Finite Element Models in Multidirectional Spaceflight Landing Conditions. Journal of Biomechanical Engineering, 2020, 142, .	1.3	7
21	Injury risk curves in far-side lateral motor vehicle crashes by AIS level, body region and injury code. Traffic Injury Prevention, 2020, 21, S112-S117.	1.4	7
22	Patient Age Is Inversely Associated with Injury Counts Caused by Motor Vehicle Crashes. Journal of Surgical Orthopaedic Advances, 2020, 29, 36-38.	0.1	0
23	Prediction of lumbar vertebral body compressive strength of overweight and obese older adults using morphed subject-specific finite-element models to evaluate the effects of weight loss. Aging Clinical and Experimental Research, 2019, 31, 491-501.	2.9	8
24	Automated Segmentation of Tissues Using CT and MRI: A Systematic Review. Academic Radiology, 2019, 26, 1695-1706.	2.5	82
25	Machine Learning for Automatic Paraspinous Muscle Area and Attenuation Measures on Low-Dose Chest CT Scans. Academic Radiology, 2019, 26, 1686-1694.	2.5	34
26	Sarcopenia and osteosarcopenia in seriously injured motor vehicle crash occupants. Traffic Injury Prevention, 2019, 20, S195-S197.	1.4	3
27	Cardiothoracic Morphology Measures in Heart Failure Patients to Inform Device Designs. Cardiovascular Engineering and Technology, 2019, 10, 543-552.	1.6	4
28	Neck Muscle Changes Following Long-Duration Spaceflight. Frontiers in Physiology, 2019, 10, 1115.	2.8	13
29	Age-based differences in the disability of extremity injuries in pediatric and adult occupants. Traffic Injury Prevention, 2019, 20, S63-S68.	1.4	7
30	Comparing rib cortical thickness measurements from computed tomography (CT) and Micro-CT. Computers in Biology and Medicine, 2019, 111, 103330.	7.0	9
31	Lumbopelvic Muscle Changes Following Long-Duration Spaceflight. Frontiers in Physiology, 2019, 10, 627.	2.8	16
32	AUTOMATED MEASUREMENT OF MUSCLE DENSITY ON COMPUTED TOMOGRAPHY (CT) PREDICTS ALL-CAUSE MORTALITY IN OLDER ADULTS. Innovation in Aging, 2019, 3, S883-S883.	0.1	0
33	Head injury metric response in finite element ATDs and a human body model in multidirectional loading regimes. Traffic Injury Prevention, 2019, 20, S96-S102.	1.4	6
34	Accuracy of algorithms to predict injury severity in older adults for trauma triage. Traffic Injury Prevention, 2019, 20, S81-S87.	1.4	4
35	Pelvic and Lower Gastrointestinal Tract Anatomical Characterization of the Average Male. Surgical Innovation, 2019, 26, 180-191.	0.9	1
36	Effect of a hypocaloric, nutritionally complete, higher-protein meal plan on bone density and quality in older adults with obesity: a randomized trial. American Journal of Clinical Nutrition, 2019, 109, 478-486.	4.7	21

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37	Multidirection Validation of a Finite Element 50th Percentile Male Hybrid III Anthropomorphic Test Device for Spaceflight Applications. <i>Journal of Biomechanical Engineering</i> , 2019, 141, .	1.3	3
38	Modeling Human Volunteers in Multidirectional, Uni-axial Sled Tests Using a Finite Element Human Body Model. <i>Annals of Biomedical Engineering</i> , 2019, 47, 487-511.	2.5	18
39	Associations between upper extremity injury patterns in side impact motor vehicle collisions with occupant and crash characteristics. <i>Accident Analysis and Prevention</i> , 2019, 122, 1-7.	5.7	13
40	Functional outcomes of thoracic injuries in pediatric and adult occupants. <i>Traffic Injury Prevention</i> , 2018, 19, S195-S198.	1.4	3
41	Numerical investigation of driver lower extremity injuries in finite element frontal crash reconstruction. <i>Traffic Injury Prevention</i> , 2018, 19, S21-S28.	1.4	8
42	Characterization of the occult nature of frequently occurring pediatric motor vehicle crash injuries. <i>Accident Analysis and Prevention</i> , 2018, 113, 12-18.	5.7	2
43	Predicting Pediatric Patients Who Require Care at a Trauma Center: Analysis of Injuries and Other Factors. <i>Journal of the American College of Surgeons</i> , 2018, 226, 70-79.e8.	0.5	6
44	Opportunistic Screening for Osteoporosis Using Computed Tomography: State of the Art and Argument for Paradigm Shift. <i>Current Rheumatology Reports</i> , 2018, 20, 74.	4.7	35
45	Computational modeling and analysis of thoracolumbar spine fractures in frontal crash reconstruction. <i>Traffic Injury Prevention</i> , 2018, 19, S32-S39.	1.4	7
46	Post-Irradiation Treatment with a Superoxide Dismutase Mimic, MnTnHex-2-PyP5+, Mitigates Radiation Injury in the Lungs of Non-Human Primates after Whole-Thorax Exposure to Ionizing Radiation. <i>Antioxidants</i> , 2018, 7, 40.	5.1	30
47	Effect of Exercise Modality During Weight Loss on Bone Health in Older Adults With Obesity and Cardiovascular Disease or Metabolic Syndrome: A Randomized Controlled Trial. <i>Journal of Bone and Mineral Research</i> , 2018, 33, 2140-2149.	2.8	41
48	Functional outcomes of motor vehicle crash thoracic injuries in pediatric and adult occupants. <i>Traffic Injury Prevention</i> , 2018, 19, 280-286.	1.4	10
49	Validation of a Finite Element 50th Percentile THOR Anthropomorphic Test Device in Multiple Sled Test Configurations. <i>Stapp Car Crash Journal</i> , 2018, 62, 415-442.	1.1	3
50	Expert Perspectives on Time Sensitivity and a Related Metric for Children Involved in Motor Vehicle Crashes. <i>Academic Pediatrics</i> , 2017, 17, 243-250.	2.0	2
51	Disability risk in pediatric motor vehicle crash occupants. <i>Journal of Trauma and Acute Care Surgery</i> , 2017, 82, 933-938.	2.1	9
52	Biomechanical Evaluations of Ocular Injury Risk for Blast Loading. <i>Journal of Biomechanical Engineering</i> , 2017, 139, .	1.3	15
53	Injury risk prediction from computational simulations of ocular blast loading. <i>Biomechanics and Modeling in Mechanobiology</i> , 2017, 16, 463-477.	2.8	14
54	Characterization of the occult nature of injury for frequently occurring motor vehicle crash injuries. <i>Accident Analysis and Prevention</i> , 2017, 98, 149-156.	5.7	6

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55	Early dose-dependent cortical thinning of the femoral neck in anal cancer patients treated with pelvic radiation therapy. <i>Bone</i> , 2017, 94, 84-89.	2.9	19
56	A Semi-Automated Approach to Real World Motor Vehicle Crash Reconstruction Using a Generic Simplified Vehicle Buck Model. <i>SAE International Journal of Transportation Safety</i> , 2016, 4, 267-277.	0.4	6
57	A cortical thickness and radiation dose mapping approach identifies early thinning of ribs after stereotactic body radiation therapy. <i>Radiotherapy and Oncology</i> , 2016, 119, 449-453.	0.6	17
58	Functional outcomes of motor vehicle crash head injuries in pediatric and adult occupants. <i>Traffic Injury Prevention</i> , 2016, 17, 27-33.	1.4	15
59	Lumbar vertebrae fracture injury risk in finite element reconstruction of CIREN and NASS frontal motor vehicle crashes. <i>Traffic Injury Prevention</i> , 2016, 17, 109-115.	1.4	17
60	Multicenter analysis of CIREN occupant lumbar bone mineral density and correlation with age and fracture incidence. <i>Traffic Injury Prevention</i> , 2016, 17, 34-41.	1.4	13
61	An Injury Severity-, Time Sensitivity-, and Predictability-Based Advanced Automatic Crash Notification Algorithm Improves Motor Vehicle Crash Occupant Triage. <i>Journal of the American College of Surgeons</i> , 2016, 222, 1211-1219.e6.	0.5	36
62	Evaluation of Skull Cortical Thickness Changes With Age and Sex From Computed Tomography Scans. <i>Journal of Bone and Mineral Research</i> , 2016, 31, 299-307.	2.8	140
63	Evaluation of morphological changes in the adult skull with age and sex. <i>Journal of Anatomy</i> , 2016, 229, 838-846.	1.5	42
64	Evaluation of developmental metrics for utilization in a pediatric advanced automatic crash notification algorithm. <i>Traffic Injury Prevention</i> , 2016, 17, 65-72.	1.4	12
65	Estimation of skull table thickness with clinical CT and validation with microCT. <i>Journal of Anatomy</i> , 2015, 226, 73-80.	1.5	44
66	Estimated Injury Risk for Specific Injuries and Body Regions in Frontal Motor Vehicle Crashes. <i>Traffic Injury Prevention</i> , 2015, 16, S108-S116.	1.4	34
67	Lumbar Bone Mineral Density Phantomless Computed Tomography Measurements and Correlation with Age and Fracture Incidence. <i>Traffic Injury Prevention</i> , 2015, 16, S153-S160.	1.4	31
68	Mortality Risk in Pediatric Motor Vehicle Crash Occupants: Accounting for Developmental Stage and Challenging Abbreviated Injury Scale Metrics. <i>Traffic Injury Prevention</i> , 2015, 16, S201-S208.	1.4	13
69	Development of a Time Sensitivity Score for Frequently Occurring Motor Vehicle Crash Injuries. <i>Journal of the American College of Surgeons</i> , 2015, 220, 305-312.e3.	0.5	11
70	Age- and Sex-Specific Thorax Finite Element Model Development and Simulation. <i>Traffic Injury Prevention</i> , 2015, 16, S57-S65.	1.4	48
71	Has the Incidence of Thoracolumbar Spine Injuries Increased in the United States From 1998 to 2011?. <i>Clinical Orthopaedics and Related Research</i> , 2015, 473, 297-304.	1.5	38
72	Predicting patients that require care at a trauma center: Analysis of injuries and other factors. <i>Injury</i> , 2015, 46, 558-563.	1.7	10

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73	Driver Injury Risk Variability in Finite Element Reconstructions of Crash Injury Research and Engineering Network (CIREN) Frontal Motor Vehicle Crashes. <i>Traffic Injury Prevention</i> , 2015, 16, S124-S131.	1.4	13
74	Image segmentation and registration algorithm to collect thoracic skeleton semilandmarks for characterization of age and sex-based thoracic morphology variation. <i>Computers in Biology and Medicine</i> , 2015, 67, 41-48.	7.0	10
75	New Methodology for an Expert-Designed Map From International Classification of Diseases (ICD) to Abbreviated Injury Scale (AIS) 3+ Severity Injury. <i>Traffic Injury Prevention</i> , 2015, 16, S197-S200.	1.4	14
76	Automotive Field Data in Injury Biomechanics. , 2015, , 33-49.		7
77	Development and Validation of an Older Occupant Finite Element Model of a Mid-Sized Male for Investigation of Age-related Injury Risk. <i>Stapp Car Crash Journal</i> , 2015, 59, 359-83.	1.1	24
78	Comparison of injury mortality risk in motor vehicle crash versus other etiologies. <i>Accident Analysis and Prevention</i> , 2014, 67, 137-147.	5.7	2
79	Morphometric analysis of variation in the sternum with sex and age. <i>Journal of Morphology</i> , 2014, 275, 1284-1299.	1.2	46
80	Morphometric analysis of variation in the ribs with age and sex. <i>Journal of Anatomy</i> , 2014, 225, 246-261.	1.5	86
81	Application of Radial Basis Function Methods in the Development of a 95th Percentile Male Seated FEA Model. <i>Stapp Car Crash Journal</i> , 2014, 58, 361-84.	1.1	22
82	Investigation of the Safety Effects of Knee Bolster Air Bag Deployment in Similar Real-World Crash Comparisons. <i>Traffic Injury Prevention</i> , 2013, 14, 168-180.	1.4	10
83	Investigation of pulmonary contusion extent and its correlation to crash, occupant, and injury characteristics in motor vehicle crashes. <i>Accident Analysis and Prevention</i> , 2013, 50, 223-233.	5.7	11
84	Mortality-based Quantification of Injury Severity for Frequently Occurring Motor Vehicle Crash Injuries. <i>Annals of Advances in Automotive Medicine</i> , 2013, 57, 235-46.	0.6	12
85	Development of an occult metric for common motor vehicle crash injuries - biomed 2013. <i>Biomedical Sciences Instrumentation</i> , 2013, 49, 274-80.	0.2	3
86	An innovative approach to predict the development of adult respiratory distress syndrome in patients with blunt trauma. <i>Journal of Trauma and Acute Care Surgery</i> , 2012, 73, 1229-1235.	2.1	36
87	Quantification of Sternal Morphology Across Ages and Genders Using Image Segmentation and Registration Techniques. , 2012, , .		0
88	Modeling Brain Injury Response for Rotational Velocities of Varying Directions and Magnitudes. <i>Annals of Biomedical Engineering</i> , 2012, 40, 2005-2018.	2.5	61
89	Computational Simulations of Ocular Blast Loading and Prediction of Eye Injury Risk. , 2012, , .		5
90	Classic Measures of Hip Dysplasia Do Not Correlate with Three-Dimensional Computer Tomographic Measures and Indices. <i>HIP International</i> , 2011, 21, 549-558.	1.7	33

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91	Biomechanical modeling of eye trauma for different orbit anthropometries. Journal of Biomechanics, 2011, 44, 1296-1303.	2.1	34
92	Evaluation of Different Projectiles in Matched Experimental Eye Impact Simulations. Journal of Biomechanical Engineering, 2011, 133, 031002.	1.3	45
93	Investigating the effects of side airbag deployment in real-world crashes using crash comparison techniques. Annals of Advances in Automotive Medicine, 2011, 55, 81-90.	0.6	5
94	Correlating the extent of pulmonary contusion to vehicle crash parameters in near-side impacts. Annals of Advances in Automotive Medicine, 2011, 55, 217-30.	0.6	8
95	Image segmentation and registration algorithm to collect homologous landmarks for age-related thoracic morphometric analysis - biomed 2011. Biomedical Sciences Instrumentation, 2011, 47, 70-5.	0.2	4
96	Volumetric Analysis Of Pulmonary Contusion In Motor Vehicle Crash Victims. , 2010, , .		0
97	Investigation Of the Impact Of Bony Prominences On Pulmonary Contusion Injury Pattern. , 2010, , .		0
98	CT Based Three-Dimensional Measurement of Orbit and Eye Anthropometry. , 2010, 51, 4892.		75
99	Age thresholds for increased mortality of predominant crash induced thoracic injuries. Annals of Advances in Automotive Medicine, 2010, 54, 41-50.	0.6	21
100	A method to measure acetabular metrics from three dimensional computed tomography pelvis reconstructions - biomed 2009. Biomedical Sciences Instrumentation, 2009, 45, 155-60.	0.2	4
101	Biomechanical analysis of pulmonary contusion in motor vehicle crash victims: a crash injury research and engineering network (ciren) study - biomed 2009. Biomedical Sciences Instrumentation, 2009, 45, 364-9.	0.2	5
102	Regional Level Crash Induced Injury Metrics Implemented within THUMS v4.01. , 0, , .		4
103	Application of Radial Basis Function Methods in the Development of a 95th Percentile Male Seated FEA Model. , 0, , .		12
104	Validation of a Finite Element 50th Percentile THOR Anthropomorphic Test Device in Multiple Sled Test Configurations. , 0, , .		2
105	Quantifying Cardiothoracic Variation with Posture and Respiration to Inform Cardiac Device Design. Cardiovascular Engineering and Technology, 0, , .	1.6	0