Frank A Pintar

List of Publications by Year
in descending order

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Version: 2024-02-01

112 papers	1,320 citations	430874 18 h-index	395702 33 g-index
112 all docs	112 docs citations	112 times ranked	835 citing authors

#	Article	IF	Citations
1	Repeated measures analysis of projectile penetration in porcine legs as a function of storage condition. Journal of Clinical Forensic and Legal Medicine, 2022, 90, 102395.	1.0	1
2	An Improved Method for Developing Injury Risk Curves Using the Brier Metric Score. Annals of Biomedical Engineering, 2021, 49, 3091-3098.	2.5	4
3	Pelvic Injury Risk Curves for the Military Populations From Lateral Impact. Military Medicine, 2021, 186, 424-429.	0.8	1
4	â€œA method to measure predictive ability of an injury risk curve using an observation-adjusted area under the receiver operating characteristic curveâ€•by A.M. Baker, F.C. Hsu, F.S. Gayzik (2018). Journal of Biomechanics, 2020, 100, 109087.	2.1	1
5	Trabecular bone mineral density correlations using QCT: Central and peripheral human skeleton. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 112, 104076.	3.1	4
6	THOR dummy chest deflection response in oblique and lateral far-side sled tests. Traffic Injury Prevention, 2019, 20, S32-S37.	1.4	5
7	Development of a Methodology for Simulating Complex Head Impacts With the Advanced Combat Helmet. Military Medicine, 2019, 184, 237-244.	0.8	6
8	Pelvis injury risk curves in side impacts from human cadaver experiments using survival analysis and Brier score metrics. Traffic Injury Prevention, 2019, 20, S137-S142.	1.4	3
9	Forces and moments in cervical spinal column segments in frontal impacts using finite element modeling and human cadaver tests. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 90, 681-688.	3.1	14
10	Role of disc area and trabecular bone density on lumbar spinal column fracture risk curves under vertical impact. Journal of Biomechanics, 2018, 72, 90-98.	2.1	19
11	The influence of child restraint lower attachment method on protection offered by forward facing child restraint systems in oblique loading conditions. Traffic Injury Prevention, 2018, 19, S139-S145.	1.4	1
12	Initial analysis of archived non-human primate frontal and rear impact data from the biodynamics data resource. Traffic Injury Prevention, 2018, 19, S44-S49.	1.4	7
13	Posterior cervical spine crisscross fixation: Biomechanical evaluation. Clinical Biomechanics, 2018, 55, 18-22.	1.2	4
14	Preliminary female cervical spine injury risk curves from PMHS tests. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 83, 143-147.	3.1	2
15	Role of age and injury mechanism on cervical spine injury tolerance from head contact loading. Traffic Injury Prevention, 2018, 19, 165-172.	1.4	10
16	Biomechanical tolerance of whole lumbar spines in straightened posture subjected to axial acceleration. Journal of Orthopaedic Research, 2018, 36, 1747-1756.	2.3	18
17	Influence of ATD versus PMHS reference sensor inputs on computational brain response in frontal impacts to advanced combat helmet (ACH). Traffic Injury Prevention, 2018, 19, S159-S161.	1.4	3
18	Ranking of Biomechanical Metrics to Describe Human Response to Impact-Induced Damage. , 2018, , .		0

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19	Novel learning framework (knockoff technique) to evaluate metric ranking algorithms to describe human response to injury. Traffic Injury Prevention, 2018, 19, S121-S126.	1.4	0
20	Three-dimensional kinematic corridors of the head, spine, and pelvis for small female driver seat occupants in near- and far-side oblique frontal impacts. Traffic Injury Prevention, 2018, 19, S64-S69.	1.4	6
21	Comparison of NOCSAE head kinematics using the Hybrid III and EuroSID-2 necks. Journal of Biomechanics, 2018, 80, 37-44.	2.1	5
22	A Novel Competing Risk Analysis Model to Determine the Role of Cervical Lordosis in Bony and Ligamentous Injuries. World Neurosurgery, 2018, 119, e962-e967.	1.3	1
23	Factors influencing the effectiveness of occupant retention under far-side impacts: A parametric study. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 84, 235-248.	3.1	4
24	Injury Risk Curves for the Human Cervical Spine from Inferior-to-Superior Loading. Stapp Car Crash Journal, 2018, 62, 271-292.	1.1	3
25	Load-Based Lower Neck Injury Criteria for Females from Rear Impact from Cadaver Experiments. Annals of Biomedical Engineering, 2017, 45, 1194-1203.	2.5	19
26	Response to Letter to the Editor on "Deriving injury risk curves using survival analysis from biomechanical experiments", Journal of Biomechanics (in press). Journal of Biomechanics, 2017, 52, 189-190.	2.1	1
27	Foot-ankle complex injury risk curves using calcaneus bone mineral density data. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 72, 246-251.	3.1	10
28	Male and Female Cervical Spine Biomechanics and Anatomy: Implication for Scaling Injury Criteria. Journal of Biomechanical Engineering, 2017, 139, .	1.3	24
29	Acoustic Emission Signatures During Failure of Vertebra and Long Bone. Annals of Biomedical Engineering, 2017, 45, 1520-1533.	2.5	8
30	Biomechanics of Lumbar Motion-Segments in Dynamic Compression. Stapp Car Crash Journal, 2017, 61, 1-25.	1.1	6
31	Non-Destructive and Failure Responses of Cervical Spine Artificial Disc Surgery for Military Applications. , 2016, , .		0
32	Finite Element Study of a Lumbar Intervertebral Disc Nucleus Replacement Device. Frontiers in Bioengineering and Biotechnology, 2016, 4, 93.	4.1	15
33	Behavioral Outcomes Differ between Rotational Acceleration and Blast Mechanisms of Mild Traumatic Brain Injury. Frontiers in Neurology, 2016, 7, 31.	2.4	29
34	Cervical spine injuries, mechanisms, stability and AIS scores from vertical loading applied to military environments. European Spine Journal, 2016, 25, 2193-2201.	2.2	10
35	Protection of children in forward-facing child restraint systems during oblique side impact sled tests: Intrusion and tether effects. Traffic Injury Prevention, 2016, 17, 156-162.	1.4	6
36	Deriving injury risk curves using survival analysis from biomechanical experiments. Journal of Biomechanics, 2016, 49, 3260-3267.	2.1	36

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37	Prediction of Post-Concussive Behavioral Changes in a Rodent Model Based on Head Rotational Acceleration Characteristics. Annals of Biomedical Engineering, 2016, 44, 3252-3265.	2.5	8
38	Evaluation of kinematics and injuries to restrained occupants in far-side crashes using full-scale vehicle and human body models. Traffic Injury Prevention, 2016, 17, 116-123.	1.4	14
39	Lumbar spine endplate fractures: Biomechanical evaluation and clinical considerations through experimental induction of injury. Journal of Orthopaedic Research, 2016, 34, 1084-1091.	2.3	16
40	Footâ€“Ankle Fractures and Injury Probability Curves from Post-mortem Human Surrogate Tests. Annals of Biomedical Engineering, 2016, 44, 2937-2947.	2.5	30
41	Responses and Injuries to PMHS in Side-Facing and Oblique Seats in Horizontal Longitudinal Sled Tests per FAA Emergency Landing Conditions. Stapp Car Crash Journal, 2016, 60, 135-163.	1.1	5
42	An Examination of Isolated and Interaction-Based Biomechanical Metrics for Potential Lower Neck Injury Criteria. , 2015, , .		2
43	Age-Infusion Approach to Derive Injury Risk Curves for Dummies from Human Cadaver Tests. Frontiers in Bioengineering and Biotechnology, 2015, 3, 196.	4.1	0
44	Effects of Blast Overpressure on Neurons and Glial Cells in Rat Organotypic Hippocampal Slice Cultures. Frontiers in Neurology, 2015, 6, 20.	2.4	23
45	The Influence of Enhanced Side Impact Protection on Kinematics and Injury Measures of Far- or Center-Seated Children in Forward-Facing Child Restraints. Traffic Injury Prevention, 2015, 16, S9-S15.	1.4	6
46	Vertical accelerator device to apply loads simulating blast environments in the military to human surrogates. Journal of Biomechanics, 2015, 48, 3534-3538.	2.1	30
47	Lower Leg Injury Reference Values and Risk Curves from Survival Analysis for Male and Female Dummies: Meta-analysis of Postmortem Human Subject Tests. Traffic Injury Prevention, 2015, 16, S100-S107.	1.4	23
48	Effects of acceleration level on lumbar spine injuries in military populations. Spine Journal, 2015, 15, 1318-1324.	1.3	18
49	Oblique Loading in Post Mortem Human Surrogates from Vehicle Lateral Impact Tests using Chestbands. Stapp Car Crash Journal, 2015, 59, 1-22.	1.1	8
50	Unilateral atlanto-axial fractures in near side impact collisions: An under recognized entity in cervical trauma. Journal of Craniovertebral Junction and Spine, 2014, 5, 33.	0.8	0
51	Optimized Lower Leg Injury Probability Curves From Postmortem Human Subject Tests Under Axial Impacts. Traffic Injury Prevention, 2014, 15, S151-S156.	1.4	34
52	A methodology to condition distorted acoustic emission signals to identify fracture timing from human cadaver spine impact tests. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 40, 156-160.	3.1	13
53	Normalizing and scaling of data to derive human response corridors from impact tests. Journal of Biomechanics, 2014, 47, 1749-1756.	2.1	29
54	Dynamic Responses of Intact Post Mortem Human Surrogates from Inferior-to-Superior Loading at the Pelvis. Stapp Car Crash Journal, 2014, 58, 123-43.	1.1	13

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55	Cervical spine injury biomechanics: Applications for under body blast loadings in military environments. Clinical Biomechanics, 2013, 28, 602-609.	1.2	31
56	Comparison of AIS 1990 update 98 versus AIS 2005 for describing PMHS injuries in lateral and oblique sled tests. Annals of Advances in Automotive Medicine, 2013, 57, 197-208.	0.6	3
57	Biomechanics of human thoracolumbar spinal column trauma from vertical impact loading. Annals of Advances in Automotive Medicine, 2013, 57, 155-66.	0.6	13
58	Injury patterns to other body regions and load vectors in nearside impact occupants with and without shoulder injuries. Annals of Advances in Automotive Medicine, 2013, 57, 133-44.	0.6	1
59	Oblique lateral impact biofidelity deflection corridors from Post Mortem Human Surrogates. Stapp Car Crash Journal, 2013, 57, 427-40.	1.1	5
60	Rate-Dependent Failure Characteristics of Thoraco-Lumbar Vertebrae: Application to the Military Environment. , 2012, , .		1
61	Effects of Treatment for Cervical Disc Degenerative Disease in Military Populations. , 2011, , .		0
62	Methodology to Study Attenuation of a Blast Wave Through the Cranium. , 2011, , .		4
63	A Thoraco-Abdominal Model for Visceral Response to Experimentally Measured Deformations. , 2011, , .		0
64	Level- and Region-Specific Properties of Young Human Lumbar Annulus. , 2011, , .		0
65	A Finite Element Study of Blast Overpressure on the Skull With and Without Helmet. , 2010, , .		0
66	Are Pure Lateral Chest Deflections a Hallmark for Side Airbag Boundary Condition?. , 2010, , .		0
67	Experimental Induction of Lumbar Spine Compression-Flexion Injuries. , 2010, , .		0
68	Posterolateral Chest Deformations From Seat-Mounted Side Airbag Deployments. , 2009, , .		0
69	Lumbar Spinal Mechanics in Pure Bending: Influence of Gender, Spinal Level, and Degeneration Grade. , 2009, , .		0
70	Facial Fractures in Motor Vehicle Collisions. Archives of Facial Plastic Surgery, 2009, 11, 165-170.	0.7	9
71	Translational and Rotational Head Kinematics in Side Impact. , 2009, , .		0
72	Block-Fixation Finite Element Lumbar Spine Model to Examine Load-Sharing, Bone-Screw Interaction, and Stress in Carbon Fiber Reinforced PEEK Construct. , 2009, , .		0

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73	Three-Dimensional Segmental Coupling Responses of the Cervical Spine. , 2008, , .		0
74	Biomechanical Implications of Gender-Dependent Muscle Locations. , 2008, , .		2
75	Level-Dependent Coronal and Axial Moment-Rotation Corridors of Degeneration-Free Cervical Spines in Lateral Flexion. Journal of Bone and Joint Surgery - Series A, 2007, 89, 1066-1074.	3.0	49
76	Experimental Study on Non-Exit Ballistic Induced Traumatic Brain Injury. , 2007, , .		1
77	Rotational Acceleration Duration Affects Brain Strains in Lateral Impact. , 2007, , .		2
78	Level-Dependent Coronal and Axial Moment-Rotation Corridors of Degeneration-Free Cervical Spines in Lateral Flexion. Journal of Bone and Joint Surgery - Series A, 2007, 89, 1066-1074.	3.0	21
79	Gender Specific Material Properties in the Thoracic Spine. , 2007, , .		0
80	Determination of Diffuse Brain Injury Thresholds Using Retrospective Analysis. , 2007, , .		1
81	Comparison of PMHS, WorldSID, and THOR-NT responses in simulated far side impact. Stapp Car Crash Journal, 2007, 51, 313-60.	1.1	33
82	Worldsid assessment of far side impact countermeasures. Annual Proceedings, 2006, 50, 199-219.	0.2	2
83	Bone Mineral Density of Cervical Spine Vertebrae Using Quantitative Computed Tomography. , 2004, , 229.		1
84	Analysis of Penetrating Head Impact. , 2004, , 257.		0
85	Effects of Thoracic Ramping on Whiplash Kinematics. , 2004, , .		0
86	Finite Element Analysis of Penetrating Head Injury. , 2003, , 193.		3
87	Occupant Extrication in Vehicular Crashes: NASS and CIREN Analyses. , 2003, , .		0
88	Spinal Posture Affects Whiplash Biomechanics. , 2003, , .		0
89	Development of Side Impact Thoracic Injury Criteria and Their Application to the Modified ES-2 Dummy with Rib Extensions (ES-2re). Stapp Car Crash Journal, 2003, 47, 189-210.	1.1	79
90	Dynamic Bending Tolerance of the Human Forearm. Traffic Injury Prevention, 2002, 3, 43-48.	1.4	6

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91	Biomechanical Mechanisms of Whiplash Injury. Traffic Injury Prevention, 2002, 3, 98-104.	1.4	8
92	Effect of Head Restraint Position and Neck Injury Criteria in Rear Impact. , 2002, , 329.		0
93	Segmental Cervical Spine Kinematics Due to Posteroanterior Impact Acceleration. , 2002, , .		0
94	Effects of Vertebral Body Changes on Cervical Spine Load Sharing. , 2002, , .		0
95	Contribution of disc degeneration to osteophyte formation in the cervical spine: a biomechanical investigation. Journal of Orthopaedic Research, 2001, 19, 977-984.	2.3	175
96	Directed and enhanced neurite growth with pulsed magnetic field stimulation. Bioelectromagnetics, 2000, 21, 272-286.	1.6	95
97	Biomechanics of Pediatric Cervical Spine: Compression, Flexion and Extension Responses. Traffic Injury Prevention, 2000, 2, 87-101.	0.5	4
98	Effect of Age and Loading Rate on Human Cervical Spine Injury Threshold. Spine, 1998, 23, 1957-1962.	2.0	91
99	Geriatric Cervical Spine Biomechanics: Effect of Degeneration Severity on Biomechanical Response. , 1998, , .		0
100	Development of a Biomechanically Analogous Cervical Spine Physical Model. , 1998, , .		0
101	Regional Load Sharing in Cervical Spine Intervertebral Disc. , 1998, , .		0
102	Dynamic Bending Strength of the Human Forearm. , 1998, , .		0
103	Continuous Static and Dynamic Moment-Rotation Curves of the Human Cervical Intervertebral Joint. , 1998, , .		0
104	Wire Fixation Techniques of the Cervical Facets. Spine, 1997, 22, 970-975.	2.0	8
105	Facet Joint Local Component Kinetics in Whiplash Trauma. , 1997, , .		1
106	Biodynamics of Cervical Spine Hyperflexion Injuries. , 1997, , .		1
107	Sensitivity of Cervical Spine Finite Element Model to Material Property Variations. , 1997, , .		0
108	Finite Element Study of the Human Cervical Spine. , 1997, , .		3

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109	Instrumented artificial spinal cord for human cervical pressure measurement. Bio-Medical Materials and Engineering, 1996, 6, 219-229.	0.6	6
110	Biomechanical Alterations Induced by Multilevel Cervical Laminectomy. Spine, 1995, 20, 2392-2397.	2.0	50
111	An Experimental Technique to Induce and Quantify Complex Cyclic Forces to the Lumbar Spine. Neurosurgery, 1995, 36, 956-964.	1.1	8
112	Strength and Kinematic Response of Dynamic Cervical Spine Injuries. Spine, 1991, 16, S511-S517.	2.0	45