Matthew Millard

List of Publications by Year
in descending order

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		759233	552781
34	1,835	12	26
papers	citations	h-index	g-index

36	36	36	1781
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effect of Rollator Assistance on Sit-to-Stand Balance in Older Adults. Biosystems and Biorobotics, 2022, , 127-132.	0.3	0
2	Comparing the risk of low-back injury using model-based optimization: Improved technique versus exoskeleton assistance. Wearable Technologies, 2021, 2, .	3.1	6
3	I3SA: The Increased Step Size Stability Assessment Benchmark and its Application to the Humanoid Robot REEM-C. , 2021, , .		0
4	A little damping goes a long way: a simulation study of how damping influences task-level stability in running. Biology Letters, 2020, 16, 20200467.	2.3	8
5	Slow but Steady: Similar Sit-to-Stand Balance at Seat-Off in Older vs. Younger Adults. Frontiers in Sports and Active Living, 2020, 2, 548174.	1.8	10
6	Biomechanical Analysis of the Slow-Twitch (Red) Muscle Force Transmission Pathways in Tunas. Physiological and Biochemical Zoology, 2020, 93, 185-198.	1.5	4
7	A Quick Turn of Foot: Rigid Foot-Ground Contact Models for Human Motion Prediction. Frontiers in Neurorobotics, 2019, 13, 62.	2.8	8
8	A reduced muscle model and planar musculoskeletal model fit for the simulation of whole-body movements. Journal of Biomechanics, 2019, 89, 11-20.	2.1	17
9	Cost function evaluation for optimizing design and actuation of an active exoskeleton to ergonomically assist lifting motions. , 2019, , .		4
10	Optimizing Design Characteristics of Passive and Active Spinal Exoskeletons for Challenging Work Tasks. Biosystems and Biorobotics, 2019, , 249-253.	0.3	1
11	A Continuous and Differentiable Mechanical Model of Muscle Force and Impedance. Biosystems and Biorobotics, 2019, , 262-266.	0.3	4
12	OpenSim: Simulating musculoskeletal dynamics and neuromuscular control to study human and animal movement. PLoS Computational Biology, 2018, 14, e1006223.	3.2	735
13	Predicting the influence of hip and lumbar flexibility on lifting motions using optimal control. Journal of Biomechanics, 2018, 78, 118-125.	2.1	9
14	Motion Optimization and Parameter Identification for a Human and Lower Back Exoskeleton Model. IEEE Robotics and Automation Letters, 2017, 2, 1564-1570.	5.1	36
15	Towards low back support with a passive biomimetic exo-spine. , 2017, 2017, 1165-1170.		9
16	Model-Based Optimization for the Design of Exoskeletons that Help Humans to Sustain Large Pushes While Walking. Biosystems and Biorobotics, 2017, , 821-825.	0.3	0
17	Parameter optimization for passive spinal exoskeletons based on experimental data and optimal control. , 2017, , .		9
18	Predicting the Motions and Forces of Wearable Robotic Systems Using Optimal Control. Frontiers in Robotics and AI, 2017, 4, .	3.2	36

#	Article	IF	Citations
19	Optimal Control Based Stiffness Identification of an Ankle-Foot Orthosis Using a Predictive Walking Model. Frontiers in Computational Neuroscience, 2017, 11, 23.	2.1	19
20	Optimizing Wearable Assistive Devices with Neuromuscular Models and Optimal Control. Biosystems and Biorobotics, 2017, , 627-632.	0.3	3
21	Polygon-Based Drawing Accuracy Analysis and Positive/Negative Space. Art and Perception, 2014, 2, 213-236.	0.5	3
22	Gait stability in children with Cerebral Palsy. Research in Developmental Disabilities, 2013, 34, 1689-1699.	2.2	43
23	How muscle fiber lengths and velocities affect muscle force generation as humans walk and run at different speeds. Journal of Experimental Biology, 2013, 216, 2150-60.	1.7	197
24	Drawing accuracy measured using polygons. Proceedings of SPIE, 2013, , .	0.8	0
25	Flexing Computational Muscle: Modeling and Simulation of Musculotendon Dynamics. Journal of Biomechanical Engineering, 2013, 135, 021005.	1.3	465
26	Foot Placement and Balance in 3D. Journal of Computational and Nonlinear Dynamics, 2012, 7, .	1.2	25
27	A Computationally Efficient Muscle Model. , 2012, , .		8
28	Forward dynamic human gait simulation using a SLIP target model. Procedia IUTAM, 2011, 2, 142-157.	1.2	11
29	3D dynamic modelling and simulation of a golf drive. Procedia Engineering, 2010, 2, 3243-3248.	1.2	15
30	Player testing and statistical analysis of two different methods for spine-aligning golf club shafts. Procedia Engineering, 2010, 2, 3355-3360.	1.2	1
31	Multi-Step Forward Dynamic Gait Simulation. , 2009, , 25-43.		8
32	Human Foot Placement and Balance in the Sagittal Plane. Journal of Biomechanical Engineering, 2009, 131, 121001.	1.3	35
33	Tuning pianos using reinforcement learning. Applied Acoustics, 2007, 68, 576-593.	3.3	1
34	Sizzle: A standards-based end-to-end security architecture for the embedded Internet. Pervasive and Mobile Computing, 2005, 1, 425-445.	3.3	97