

Ajay Seth

List of Publications by Year in descending order

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Version: 2024-02-01

29
papers

4,129
citations

361045

20
h-index

525886

27
g-index

35
all docs

35
docs citations

35
times ranked

3093
citing authors

#	ARTICLE	IF	CITATIONS
1	OpenSense: An open-source toolbox for inertial-measurement-unit-based measurement of lower extremity kinematics over long durations. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2022, 19, 22.	2.4	56
2	Conclusion or Illusion: Quantifying Uncertainty in Inverse Analyses From Marker-Based Motion Capture due to Errors in Marker Registration and Model Scaling. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, .	2.0	8
3	Muscle coordination retraining inspired by musculoskeletal simulations reduces knee contact force. <i>Scientific Reports</i> , 2022, 12, .	1.6	24
4	A marker registration method to improve joint angles computed by constrained inverse kinematics. <i>PLoS ONE</i> , 2021, 16, e0252425.	1.1	11
5	Biomechanics Aware Collaborative Robot System for Delivery of Safe Physical Therapy in Shoulder Rehabilitation. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 7177-7184.	3.3	17
6	Muscle Contributions to Upper-Extremity Movement and Work From a Musculoskeletal Model of the Human Shoulder. <i>Frontiers in Neurorobotics</i> , 2019, 13, 90.	1.6	38
7	OpenSim: Simulating musculoskeletal dynamics and neuromuscular control to study human and animal movement. <i>PLoS Computational Biology</i> , 2018, 14, e1006223.	1.5	735
8	A Biomechanical Model of the Scapulothoracic Joint to Accurately Capture Scapular Kinematics during Shoulder Movements. <i>PLoS ONE</i> , 2016, 11, e0141028.	1.1	106
9	Rectus femoris transfer surgery affects balance recovery in children with cerebral palsy: A computer simulation study. <i>Gait and Posture</i> , 2016, 43, 24-30.	0.6	27
10	Simulating Ideal Assistive Devices to Reduce the Metabolic Cost of Running. <i>PLoS ONE</i> , 2016, 11, e0163417.	1.1	127
11	Is My Model Good Enough? Best Practices for Verification and Validation of Musculoskeletal Models and Simulations of Movement. <i>Journal of Biomechanical Engineering</i> , 2015, 137, 020905.	0.6	509
12	Are Subject-Specific Musculoskeletal Models Robust to the Uncertainties in Parameter Identification?. <i>PLoS ONE</i> , 2014, 9, e112625.	1.1	146
13	Muscle contributions to vertical and fore-aft accelerations are altered in subjects with crouch gait. <i>Gait and Posture</i> , 2013, 38, 86-91.	0.6	58
14	A rolling constraint reproduces ground reaction forces and moments in dynamic simulations of walking, running, and crouch gait. <i>Journal of Biomechanics</i> , 2013, 46, 1772-1776.	0.9	27
15	How muscle fiber lengths and velocities affect muscle force generation as humans walk and run at different speeds. <i>Journal of Experimental Biology</i> , 2013, 216, 2150-60.	0.8	197
16	What is a Moment Arm? Calculating Muscle Effectiveness in Biomechanical Models Using Generalized Coordinates. , 2013, 2013, .		60
17	Flexing Computational Muscle: Modeling and Simulation of Musculotendon Dynamics. <i>Journal of Biomechanical Engineering</i> , 2013, 135, 021005.	0.6	465
18	Contributions of muscles to mediolateral ground reaction force over a range of walking speeds. <i>Journal of Biomechanics</i> , 2012, 45, 2438-2443.	0.9	88

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19	Simbody: multibody dynamics for biomedical research. <i>Procedia IUTAM</i> , 2011, 2, 241-261.	1.2	193
20	Simulation of human movement: applications using OpenSim. <i>Procedia IUTAM</i> , 2011, 2, 186-198.	1.2	59
21	OpenSim: a musculoskeletal modeling and simulation framework for in silico investigations and exchange. <i>Procedia IUTAM</i> , 2011, 2, 212-232.	1.2	219
22	Minimal formulation of joint motion for biomechanisms. <i>Nonlinear Dynamics</i> , 2010, 62, 291-303.	2.7	57
23	Muscle contributions to support and progression during single-limb stance in crouch gait. <i>Journal of Biomechanics</i> , 2010, 43, 2099-2105.	0.9	170
24	Muscle contributions to propulsion and support during running. <i>Journal of Biomechanics</i> , 2010, 43, 2709-2716.	0.9	608
25	Crouch Gait Represents a Simplified Muscular Support Strategy During Single-Limb Stance Compared to Unimpaired Gait. , 2009, , .		0
26	A neuromusculoskeletal tracking method for estimating individual muscle forces in human movement. <i>Journal of Biomechanics</i> , 2007, 40, 356-366.	0.9	97
27	A nonlinear tracking method of computing net joint torques for human movement. , 2004, 2004, 4633-6.		3
28	Multi-joint coordination of vertical arm movement. <i>Applied Bionics and Biomechanics</i> , 2003, 1, 45-56.	0.5	3
29	Multi-Joint Coordination of Vertical Arm Movement. <i>Applied Bionics and Biomechanics</i> , 2003, 1, 45-56.	0.5	5