

Claudio Pizzolato

List of Publications by Year in descending order

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Version: 2024-02-01

46
papers

1,441
citations

331259

21
h-index

344852

36
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47
all docs

47
docs citations

47
times ranked

947
citing authors

#	ARTICLE	IF	CITATIONS
1	CEINMS: A toolbox to investigate the influence of different neural control solutions on the prediction of muscle excitation and joint moments during dynamic motor tasks. <i>Journal of Biomechanics</i> , 2015, 48, 3929-3936.	0.9	223
2	MOtoNMS: A MATLAB toolbox to process motion data for neuromusculoskeletal modeling and simulation. <i>Source Code for Biology and Medicine</i> , 2015, 10, 12.	1.7	109
3	Modeling and simulating the neuromuscular mechanisms regulating ankle and knee joint stiffness during human locomotion. <i>Journal of Neurophysiology</i> , 2015, 114, 2509-2527.	0.9	104
4	Biofeedback for Gait Retraining Based on Real-Time Estimation of Tibiofemoral Joint Contact Forces. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2017, 25, 1612-1621.	2.7	88
5	Non-negative matrix factorisation is the most appropriate method for extraction of muscle synergies in walking and running. <i>Scientific Reports</i> , 2020, 10, 8266.	1.6	67
6	Real-time inverse kinematics and inverse dynamics for lower limb applications using OpenSim. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2017, 20, 436-445.	0.9	60
7	Subject-specific calibration of neuromuscular parameters enables neuromusculoskeletal models to estimate physiologically plausible hip joint contact forces in healthy adults. <i>Journal of Biomechanics</i> , 2018, 80, 111-120.	0.9	53
8	Machine learning methods to support personalized neuromusculoskeletal modelling. <i>Biomechanics and Modeling in Mechanobiology</i> , 2020, 19, 1169-1185.	1.4	53
9	A calibrated EMG-informed neuromusculoskeletal model can appropriately account for muscle co-contraction in the estimation of hip joint contact forces in people with hip osteoarthritis. <i>Journal of Biomechanics</i> , 2019, 83, 134-142.	0.9	50
10	Bioinspired Technologies to Connect Musculoskeletal Mechanobiology to the Person for Training and Rehabilitation. <i>Frontiers in Computational Neuroscience</i> , 2017, 11, 96.	1.2	44
11	Static optimization underestimates antagonist muscle activity at the glenohumeral joint: A musculoskeletal modeling study. <i>Journal of Biomechanics</i> , 2019, 97, 109348.	0.9	43
12	The effects of electromyography-assisted modelling in estimating musculotendon forces during gait in children with cerebral palsy. <i>Journal of Biomechanics</i> , 2019, 92, 45-53.	0.9	39
13	Neuromusculoskeletal Modeling-Based Prostheses for Recovery After Spinal Cord Injury. <i>Frontiers in Neurobotics</i> , 2019, 13, 97.	1.6	31
14	Muscle contributions to medial tibiofemoral compartment contact loading following ACL reconstruction using semitendinosus and gracilis tendon grafts. <i>PLoS ONE</i> , 2017, 12, e0176016.	1.1	30
15	Increasing level of neuromusculoskeletal model personalisation to investigate joint contact forces in cerebral palsy: A twin case study. <i>Clinical Biomechanics</i> , 2020, 72, 141-149.	0.5	30
16	Finding the sweet spot via personalised Achilles tendon training: the future is within reach. <i>British Journal of Sports Medicine</i> , 2019, 53, 11-12.	3.1	28
17	Tibiofemoral joint contact forces increase with load magnitude and walking speed but remain almost unchanged with different types of carried load. <i>PLoS ONE</i> , 2018, 13, e0206859.	1.1	27
18	Muscle contributions to tibiofemoral shear forces and valgus and rotational joint moments during single leg drop landing. <i>Scandinavian Journal of Medicine and Science in Sports</i> , 2020, 30, 1664-1674.	1.3	27

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19	Targeted Achilles Tendon Training and Rehabilitation Using Personalized and Real-Time Multiscale Models of the Neuromusculoskeletal System. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 878.	2.0	26
20	Development and validation of statistical shape models of the primary functional bone segments of the foot. <i>PeerJ</i> , 2020, 8, e8397.	0.9	24
21	Individuals with mild-to-moderate hip osteoarthritis walk with lower hip joint contact forces despite higher levels of muscle co-contraction compared to healthy individuals. <i>Osteoarthritis and Cartilage</i> , 2020, 28, 924-931.	0.6	23
22	Trunk, pelvis and lower limb walking biomechanics are similarly altered in those with femoroacetabular impingement syndrome regardless of cam morphology size. <i>Gait and Posture</i> , 2021, 83, 26-34.	0.6	23
23	Immediate effects of valgus knee bracing on tibiofemoral contact forces and knee muscle forces. <i>Gait and Posture</i> , 2019, 68, 55-62.	0.6	22
24	Non-invasive approaches to functional recovery after spinal cord injury: Therapeutic targets and multimodal device interventions. <i>Experimental Neurology</i> , 2021, 339, 113612.	2.0	22
25	EMG-Informed Neuromusculoskeletal Models Accurately Predict Knee Loading Measured Using Instrumented Implants. <i>IEEE Transactions on Biomedical Engineering</i> , 2022, 69, 2268-2275.	2.5	21
26	Best methods and data to reconstruct paediatric lower limb bones for musculoskeletal modelling. <i>Biomechanics and Modeling in Mechanobiology</i> , 2020, 19, 1225-1238.	1.4	20
27	Magnetic Resonance Imaging and Freehand 3-D Ultrasound Provide Similar Estimates of Free Achilles Tendon Shape and 3-D Geometry. <i>Ultrasound in Medicine and Biology</i> , 2019, 45, 2898-2905.	0.7	18
28	Influence of altered geometry and material properties on tissue stress distribution under load in tendinopathic Achilles tendons – A subject-specific finite element analysis. <i>Journal of Biomechanics</i> , 2019, 82, 142-148.	0.9	16
29	The effectiveness of EMG-driven neuromusculoskeletal model calibration is task dependent. <i>Journal of Biomechanics</i> , 2021, 129, 110698.	0.9	15
30	The Free Achilles Tendon Is Shorter, Stiffer, Has Larger Cross-Sectional Area and Longer T2* Relaxation Time in Trained Middle-Distance Runners Compared to Healthy Controls. <i>Frontiers in Physiology</i> , 2020, 11, 965.	1.3	13
31	A muscle synergy-based method to estimate muscle activation patterns of children with cerebral palsy using data collected from typically developing children. <i>Scientific Reports</i> , 2022, 12, 3599.	1.6	13
32	EMG-Assisted Algorithm to Account for Shoulder Muscles Co-Contraction in Overhead Manual Handling. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 3522.	1.3	12
33	Fusing Accelerometry with Videography to Monitor the Effect of Fatigue on Punching Performance in Elite Boxers. <i>Sensors</i> , 2020, 20, 5749.	2.1	11
34	Muscle function during single leg landing. <i>Scientific Reports</i> , 2022, 12, .	1.6	10
35	Free Achilles tendon strain during selected rehabilitation, locomotor, jumping, and landing tasks. <i>Journal of Applied Physiology</i> , 2022, 132, 956-965.	1.2	9
36	A flexible architecture to enhance wearable robots: Integration of EMG-informed models. , 2015, , .		8

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37	Electromyography-Assisted Neuromusculoskeletal Models Can Estimate Physiological Muscle Activations and Joint Moments Across the Neck Before Impacts. <i>Journal of Biomechanical Engineering</i> , 2022, 144, .	0.6	7
38	Feasibility of personalised hip load modification using real-time biofeedback in hip osteoarthritis: A pilot study. <i>Osteoarthritis and Cartilage Open</i> , 2022, 4, 100230.	0.9	6
39	The Deep Hip Muscles are Unlikely to Stabilize the Hip in the Sagittal Plane During Walking: A Joint Stiffness Approach. <i>IEEE Transactions on Biomedical Engineering</i> , 2022, 69, 1133-1140.	2.5	3
40	Activation of the deep hip muscles can change the direction of loading at the hip. <i>Journal of Biomechanics</i> , 2022, 135, 111019.	0.9	3
41	Effect of a valgus brace on medial tibiofemoral joint contact force in knee osteoarthritis with varus malalignment: A within-participant cross-over randomised study with an uncontrolled observational longitudinal follow-up. <i>PLoS ONE</i> , 2022, 17, e0257171.	1.1	3
42	Individuals with mild-to-moderate hip osteoarthritis walk with lower hip joint contact forces despite higher levels of muscle co-contraction compared to healthy controls. <i>Osteoarthritis and Cartilage</i> , 2019, 27, S62-S63.	0.6	2
43	Electromyography measurements of the deep hip muscles do not improve estimates of hip contact force. <i>Journal of Biomechanics</i> , 2022, 141, 111220.	0.9	2
44	Real-time estimation of lower limb joint angles through inverse kinematics during walking using a scaled OpenSim model. <i>Journal of Science and Medicine in Sport</i> , 2014, 18, e142.	0.6	1
45	Personalized digital humans for rehabilitation and assistive devices. <i>Journal of Science and Medicine in Sport</i> , 2022, 25, S5-S6.	0.6	1
46	Valgus knee bracing for medial knee osteoarthritis and varus malalignment: a pilot study. <i>Osteoarthritis and Cartilage</i> , 2021, 29, S173-S174.	0.6	0