Carlo A Frigo

List of Publications by Year
in descending order

77 papers	4,105 citations	201674 27 h-index	138484 58 g-index
82 all docs	82 docs citations	82 times ranked	3552 citing authors

#	Article	IF	Citations
1	Stair ascent and descent at different inclinations. Gait and Posture, 2002, 15, 32-44.	1.4	601
2	A motor programme for the initiation of forwardâ€oriented movements in humans.. Journal of Physiology, 1991, 437, 635-653.	2.9	357
3	Quantitative comparison of five current protocols in gait analysis. Gait and Posture, 2008, 28, 207-216.	1.4	283
4	Excitability of the soleus H-reflex arc during walking and stepping in man. Experimental Brain Research, 1987, 66, 49-60.	1.5	255
5	Forward and backward axial synergies in man. Experimental Brain Research, 1987, 65, 538-48.	1.5	241
6	Multichannel SEMG in clinical gait analysis: A review and state-of-the-art. Clinical Biomechanics, 2009, 24, 236-245.	1.2	161
7	Evaluation of an ambulatory system for gait analysis in hip osteoarthritis and after total hip replacement. Gait and Posture, 2004, 20, 102-107.	1.4	156
8	Gait asymmetry of transfemoral amputees using mechanical and microprocessor-controlled prosthetic knees. Clinical Biomechanics, 2012, 27, 460-465.	1.2	137
9	Electromyographic signals during gait: Criteria for envelope filtering and number of strides. Medical and Biological Engineering and Computing, 1998, 36, 171-178.	2.8	132
10	Functionally oriented and clinically feasible quantitative gait analysis method. Medical and Biological Engineering and Computing, 1998, 36, 179-185.	2.8	129
11	Moment-angle relationship at lower limb joints during human walking at different velocities. Journal of Electromyography and Kinesiology, 1996, 6, 177-190.	1.7	115
12	EMG signals detection and processing for on-line control of functional electrical stimulation. Journal of Electromyography and Kinesiology, 2000, 10, 351-360.	1.7	114
13	Postural synergies in axial movements: short and long-term adaptation. Experimental Brain Research, 1989, 74, 3-10.	1.5	107
14	The upper body segmental movements during walking by young females. Clinical Biomechanics, 2003, 18, 419-425.	1.2	97
15	Changes in the excitability of soleus muscle short latency stretch reflexes during human hopping after 4 weeks of hopping training. European Journal of Applied Physiology, 1998, 78, 522-532.	2.5	93
16	Lower extremity angle measurement with accelerometers-error and sensitivity analysis. IEEE Transactions on Biomedical Engineering, 1991, 38, 1186-1193.	4.2	79
17	Patient-driven control of FES-supported standing up and sitting down: experimental results. IEEE Transactions on Rehabilitation Engineering: A Publication of the IEEE Engineering in Medicine and Biology Society, 2000, 8, 523-529.	1.4	69
18	Evidence of phase-dependent nociceptive reflexes during locomotion in man. Experimental Neurology, 1984, 85, 336-345.	4.1	63

#	Article	IF	Citations
19	Analysis of the Gait of Adults Who Had Residua of Congenital Dysplasia of the Hip*. Journal of Bone and Joint Surgery - Series A, 1996, 78, 1468-79.	3.0	62
20	Effects of plantarflexion on pelvis and lower limb kinematics. Gait and Posture, 2008, 28, 150-156.	1.4	55
21	Dynamics of the ankle joint analyzed through momentâ€“angle loops during human walking: Gender and age effects. Human Movement Science, 2011, 30, 1185-1198.	1.4	53
22	Sitting posture: analysis of lumbar stresses with upper limbs supported. Ergonomics, 1985, 28, 1333-1346.	2.1	49
23	Multifactorial estimation of hip and knee joint centres for clinical application of gait analysis. Gait and Posture, 1998, 8, 91-102.	1.4	45
24	Muscular effort and musculoskeletal disorders in piano students: electromyographic, clinical and preventive aspects. Ergonomics, 1989, 32, 697-716.	2.1	36
25	Functional Control of the Hand in Tetraplegics Based on Residual Synergistic EMG Activity. Artificial Organs, 1999, 23, 470-473.	1.9	32
26	Gait Initiation in Parkinsonâ€™s Disease: Impact of Dopamine Depletion and Initial Stance Condition. Frontiers in Bioengineering and Biotechnology, 2020, 8, 137.	4.1	32
27	Mechanical Energy Recovery during Walking in Patients with Parkinson Disease. PLoS ONE, 2016, 11, e0156420.	2.5	32
28	Gait Initiation in Children with Rett Syndrome. PLoS ONE, 2014, 9, e92736.	2.5	30
29	Three-dimensional model for studying the dynamic loads on the spine during lifting. Clinical Biomechanics, 1990, 5, 143-152.	1.2	29
30	A dynamic model of quadriceps and hamstrings function. Gait and Posture, 2010, 31, 100-103.	1.4	28
31	Standing-up exerciser based on functional electrical stimulation and body weight relief. Medical and Biological Engineering and Computing, 2002, 40, 282-289.	2.8	26
32	The heel-contact gait pattern of habitual toe walkers. Gait and Posture, 2005, 21, 311-317.	1.4	24
33	Beat-to-beat heart rate detection by smartphone's accelerometers: Validation with ECG. , 2016, 2016, 525-528.		24
34	Sit-to-walk performance in Parkinson's disease: A comparison between faller and non-faller patients. Clinical Biomechanics, 2019, 63, 140-146.	1.2	22
35	Analysis and Comparison of Features and Algorithms to Classify Shoulder Movements From sEMG Signals. IEEE Sensors Journal, 2018, 18, 3714-3721.	4.7	21
36	Gait initiation in progressive supranuclear palsy: brain metabolic correlates. NeuroImage: Clinical, 2020, 28, 102408.	2.7	21

#	Article	IF	Citations
37	Posture analysis. Ergonomics, 1985, 28, 275-284.	2.1	20
38	A dynamic multibody model of the physiological knee to predict internal loads during movement in gravitational field. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 571-579.	1.6	20
39	Ultra-short-term heart rate variability analysis on accelerometric signals from mobile phone. , 2017, , .		20
40	Instrumented staircase for ground reaction measurement. Medical and Biological Engineering and Computing, 1999, 37, 526-529.	2.8	17
41	Hip joint anatomy virtual and stereolithographic reconstruction for preoperative planning of total hip replacement. International Congress Series, 2005, 1281, 708-712.	0.2	17
42	Comparison of cartilage thickness with radiologic grade of knee osteoarthritis. Skeletal Radiology, 2008, 37, 639-643.	2.0	17
43	An easily applicable method to analyse the ankle-foot power absorption and production during walking. Gait and Posture, 2019, 71, 56-61.	1.4	16
44	Studying heart rate variability from ballistocardiography acquired by force platform: Comparison with conventional ECG. , 2015, , .		15
45	Evaluation of respiratory- and postural-induced changes on the ballistocardiogram signal by time warping averaging. Physiological Measurement, 2017, 38, 1426-1440.	2.1	15
46	Modelling the triceps surae muscle-tendon complex for the estimation of length changes during walking. Journal of Electromyography and Kinesiology, 1996, 6, 191-203.	1.7	14
47	A Novel Wearable Apparatus to Measure Fingertip Forces in Manipulation Tasks Based on MEMS Barometric Sensors. IEEE Transactions on Haptics, 2017, 10, 317-324.	2.7	14
48	Ground reaction: intrinsic and extrinsic variability assessment and related method for artefact treatment. Journal of Biomechanics, 2001, 34, 363-370.	2.1	12
49	Ankle Joint Dynamic Stiffness in Long-Distance Runners: Effect of Foot Strike and Shoes Features. Applied Sciences (Switzerland), 2019, 9, 4100.	2.5	11
50	The Effects of External Loads and Muscle Forces on the Knee Joint Ligaments during Walking: A Musculoskeletal Model Study. Applied Sciences (Switzerland), 2021, 11, 2356.	2.5	9
51	Exploring the Embodiment of a Virtual Hand in a Spatially Augmented Respiratory Biofeedback Setting. Frontiers in Neurorobotics, 2021, 15, 683653.	2.8	9
52	Use a Portable Device for Measuring Spasticity in Individuals with Cerebral Palsy. Journal of Physical Therapy Science, 2013, 25, 271-275.	0.6	8
53	Processing of surface EMG through pattern recognition techniques aimed at classifying shoulder joint movements. , 2015, 2015, 2107-10.		8
54	The Effects of the Rectus Femoris Muscle on Knee and Foot Kinematics during the Swing Phase of Normal Walking. Applied Sciences (Switzerland), 2020, 10, 7881.	2.5	8

#	Article	IF	Citations
55	Functional Evaluation and Rehabilitation Engineering. IEEE Pulse, 2011, 2, 24-34.	0.3	7
56	Influence of an eccentric load added at the back of the head on head-neck posture. Gait and Posture, 2013, 38, 951-955.	1.4	7
57	Hindered muscle relaxation in spasticity: experimental evidence suggesting a possible pathophysiological mechanism. Italian Journal of Neurological Sciences, 1985, 6, 481-489.	0.1	6
58	Feasibility study for beat-to-beat heart rate detection by smartphone's accelerometers. , 2015, , .		6
59	Semiautomated digital analysis of knee joint space width using MR images. Skeletal Radiology, 2007, 36, 437-444.	2.0	3
60	Is lower peripheral information weighted differently as a function of step number during step climbing?. Gait and Posture, 2017, 52, 52-56.	1.4	3
61	Using UHF RFID Properties to Develop and Optimize an Upper-Limb Rehabilitation System. Sensors, 2020, 20, 3224.	3.8	3
62	Alterations of load transfer mechanism during gait initiation in Parkinson's disease. , 2017, , .		2
63	Anticipatory postural adjustments of gait initiation in healthy subjects: The effect of interfoot distance. , 2017, , .		1
64	Achieving ecological validity in mobility assessment: Validating a wearable sensor technology for comprehensive gait assessment. , 2017, , .		1
65	Respiratory Frequency Estimation from Accelerometric Signals Acquired by Mobile Phone in a Controlled Breathing Protocol. , 0, , .		1
66	Prosthetic and Orthotic Devices. , 0, , 788-852.		1
67	Prosthetic and Orthotic Devices. , 0, , 549-613.		1
68	Inverse model simulations of fast forward bending. , 0, , .		0
69	Obituary for Dr. Paolo Crenna. Gait and Posture, 2010, 32, I-II.	1.4	0
70	Walking efficiency assessment through the analysis of mechanical energy and energy recovery index. , 2013, , .		0
71	Influence of shoes and cover characteristics on the prosthetic feet Energy Storage and Release mechanism. , 2013, , .		0
72	Gait initiation failure in patients with Progressive Supranuclear Palsy. Gait and Posture, 2016, 49, S28.	1.4	0

#	Article	IF	Citations
73	Regularity assessment of cyclic human movements: An innovative method based on wearable sensors. , 2017, , .		0
74	O 061 - A method to compute the foot energy flow during walking. Gait and Posture, 2018, 65, 125-126.	1.4	0
75	Development and first evaluation of a RF-based rehabilitation system. , 2020, , .		0
76	AN OBJECTIVE METHOD TO EVALUATE FORCE AND KNEE JOINT MOMENTS DURING ISOMETRIC EXTENSION. , 2008, , .		0
77	Disable Workstation Development: A Multicompetence Approach to Human Behaviour Analysis. Lecture Notes in Computer Science, 2011, , 263-270.	1.3	0