Juan C Moreno

List of Publications by Citations

132 papers	2,610 citations	26 h-index	49 g-index
144 ext. papers	3,309 ext. citations	2.4 avg, IF	5.18 L-index

#	Paper	IF	Citations
132	Rehabilitation of gait after stroke: a review towards a top-down approach. *Journal of NeuroEngineering and Rehabilitation*, **2011**, 8, 66	5.3	320
131	Design and validation of a rehabilitation robotic exoskeleton for tremor assessment and suppression. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2007**, 15, 367-78	4.8	218
130	The H2 robotic exoskeleton for gait rehabilitation after stroke: early findings from a clinical study. *Journal of NeuroEngineering and Rehabilitation*, **2015**, 12, 54	5.3	188
129	. *IEEE Systems Journal*, **2016**, 10, 1068-1081	4.3	186
128	A closed-loop brain-computer interface triggering an active ankle-foot orthosis for inducing cortical neural plasticity. *IEEE Transactions on Biomedical Engineering*, **2014**, 61, 2092-101	5	112
127	Hybrid FES-robot cooperative control of ambulatory gait rehabilitation exoskeleton. *Journal of NeuroEngineering and Rehabilitation*, **2014**, 11, 27	5.3	105
126	Review of hybrid exoskeletons to restore gait following spinal cord injury. *Journal of Rehabilitation Research and Development*, **2012**, 49, 497-514		101
125	Real-time estimation of pathological tremor parameters from gyroscope data. *Sensors*, **2010**, 10, 2129-49	3.8	75
124	Shared muscle synergies in human walking and cycling. *Journal of Neurophysiology*, **2014**, 112, 1984-98	3.2	73
123	Compliant lower limb exoskeletons: a comprehensive review on mechanical design principles. *Journal of NeuroEngineering and Rehabilitation*, **2019**, 16, 55	5.3	63
122	Automatic recognition of gait patterns in human motor disorders using machine learning: A review. *Medical Engineering and Physics*, **2018**, 53, 1-12	2.4	63
121	Design and implementation of an inertial measurement unit for control of artificial limbs: Application on leg orthoses. *Sensors and Actuators B: Chemical*, **2006**, 118, 333-337	8.5	56
120	Biologically based design of an actuator system for a knee–ankle–foot orthosis. *Mechanism and Machine Theory*, **2009**, 44, 860-872	4	55
119	Study of the motion artefacts of skin-mounted inertial sensors under different attachment conditions. *Physiological Measurement*, **2008**, 29, N21-31	2.9	50
118	Effects of robotic guidance on the coordination of locomotion. *Journal of NeuroEngineering and Rehabilitation*, **2013**, 10, 79	5.3	47
117	Voluntary control of wearable robotic exoskeletons by patients with paresis via neuromechanical modeling. *Journal of NeuroEngineering and Rehabilitation*, **2019**, 16, 91	5.3	40
116	Combining muscle synergies and biomechanical analysis to assess gait in stroke patients. *Journal of Biomechanics*, **2017**, 63, 98-103	2.9	39

115	Benchmarking Bipedal Locomotion: A Unified Scheme for Humanoids, Wearable Robots, and Humans. *IEEE Robotics and Automation Magazine*, **2015**, 22, 103-115	3.4	38
114	Performance Evaluation of Lower Limb Exoskeletons: A Systematic Review. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2020**, 28, 1573-1583	4.8	38
113	Neurorobotic and hybrid management of lower limb motor disorders: a review. *Medical and Biological Engineering and Computing*, **2011**, 49, 1119-30	3.1	37
112	Motor modules in robot-aided walking. *Journal of NeuroEngineering and Rehabilitation*, **2012**, 9, 76	5.3	35
111	A robotic exoskeleton for overground gait rehabilitation **2013**,		35
110	Immediate effects of a controllable knee ankle foot orthosis for functional compensation of gait in patients with proximal leg weakness. *Medical and Biological Engineering and Computing*, **2008**, 46, 43-53	3.1	35
109	Gait Event Detection in Controlled and Real-Life Situations: Repeated Measures From Healthy Subjects. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2018**, 26, 1945-1956	4.8	28
108	Advances in selective activation of muscles for non-invasive motor neuroprostheses. *Journal of NeuroEngineering and Rehabilitation*, **2016**, 13, 56	5.3	27
107	Hybrid gait training with an overground robot for people with incomplete spinal cord injury: a pilot study. *Frontiers in Human Neuroscience*, **2014**, 8, 298	3.3	26
106	Online assessment of human-robot interaction for hybrid control of walking. *Sensors*, **2012**, 12, 215-25	3.8	26
105	Assessing the Involvement of Users During Development of Lower Limb Wearable Robotic Exoskeletons: A Survey Study. *Human Factors*, **2020**, 62, 351-364	3.8	22
104	Muscle Synergies in Cycling after Incomplete Spinal Cord Injury: Correlation with Clinical Measures of Motor Function and Spasticity. *Frontiers in Human Neuroscience*, **2015**, 9, 706	3.3	22
103	Hybrid therapy of walking with Kinesis overground robot for persons with incomplete spinal cord injury: A feasibility study. *Robotics and Autonomous Systems*, **2015**, 73, 44-58	3.5	21
102	Advances in neuroprosthetic management of foot drop: a review. *Journal of NeuroEngineering and Rehabilitation*, **2020**, 17, 46	5.3	19
101	Influences of the biofeedback content on robotic post-stroke gait rehabilitation: electromyographic vs joint torque biofeedback. *Journal of NeuroEngineering and Rehabilitation*, **2019**, 16, 95	5.3	18
100	Biped Locomotion Control through a Biomimetic CPG-based Controller. *Journal of Intelligent and Robotic Systems: Theory and Applications*, **2017**, 85, 47-70	2.9	18
99	A Subject-Specific Kinematic Model to Predict Human Motion in Exoskeleton-Assisted Gait. *Frontiers in Neurorobotics*, **2018**, 12, 18	3.4	14
98	Enhancing functional electrical stimulation for emerging rehabilitation robotics in the framework of HYPER project. *IEEE International Conference on Rehabilitation Robotics*, **2011**, 2011, 5975370	1.3	13

97	Analysis of the Human Interaction with a Wearable Lower-Limb Exoskeleton. *Applied Bionics and Biomechanics*, **2009**, 6, 245-256	1.6	11
96	HumanRobot Cognitive Interaction87-125		11
95	A new platform based on IEEE802.15.4 wireless inertial sensors for motion caption and assessment. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2006**, Suppl, 6497-500		11
94	Boosting the traditional physiotherapist approach for stroke spasticity using a sensorized ankle foot orthosis: a pilot study. *Topics in Stroke Rehabilitation*, **2017**, 24, 447-456	2.6	10
93	Benchmarking lower limb wearable robots **2015**,		10
92	Haptic Adaptive Feedback to Promote Motor Learning With a Robotic Ankle Exoskeleton Integrated With a Video Game. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 113	5.8	10
91	. *IEEE Access*, **2020**, 8, 33250-33262	3.5	10
90	Global Kalman filter approaches to estimate absolute angles of lower limb segments. *BioMedical Engineering OnLine*, **2017**, 16, 58	4.1	10
89	Wearable Robot Technologies165-200		10
88	Self-tuned driving of piezoelectric actuators. *Journal of the European Ceramic Society*, **2007**, 27, 4163-4167		10
87	BioMot exoskeleton - Towards a smart wearable robot for symbiotic human-robot interaction. *IEEE International Conference on Rehabilitation Robotics*, **2017**, 2017, 1666-1671	1.3	9
86	Intramuscular Stimulation of Muscle Afferents Attains Prolonged Tremor Reduction in Essential Tremor Patients. *IEEE Transactions on Biomedical Engineering*, **2021**, 68, 1768-1776	5	9
85	Wearable Inertial Sensor System Towards Daily Human Kinematic Gait Analysis: Benchmarking Analysis to MVN BIOMECH. *Sensors*, **2020**, 20,	3.8	8
84	A flexible architecture to enhance wearable robots: Integration of EMG-informed models **2015**,		8
83	Similarity of muscle synergies in human walking and cycling: preliminary results. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 6933-6	0.9	8
82	Principles of human locomotion: a review. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 6941-4	0.9	8
81	Analysis of the human interaction with a wearable lower-limb exoskeleton. *Applied Bionics and Biomechanics*, **2009**, 6, 245-256	1.6	8
80	Application of inertial sensors in rehabilitation robotics **2007**,		8

79	Exoskeletons for lower-limb rehabilitation **2018**, 89-99		8
78	Towards human-knee orthosis interaction based on adaptive impedance control through stiffness adjustment. *IEEE International Conference on Rehabilitation Robotics*, **2017**, 2017, 406-411	1.3	7
77	On the use of inertial measurement units for real-time quantification of pathological tremor amplitude and frequency. *Procedia Chemistry*, **2009**, 1, 1219-1222		7
76	**2016**,		7
75	Adaptive multichannel FES neuroprosthesis with learning control and automatic gait assessment. *Journal of NeuroEngineering and Rehabilitation*, **2020**, 17, 36	5.3	6
74	Motor Control System for Adaptation of Healthy Individuals and Recovery of Poststroke Patients: A Case Study on Muscle Synergies. *Neural Plasticity*, **2019**, 2019, 8586416	3.3	5
73	Electronic design and validation of Powered Knee Orthosis system embedded with wearable sensors **2017**,		5
72	Analysis of biomechanical data to determine the degree of users participation during robotic-assisted gait rehabilitation. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 4855-8	0.9	5
71	Joint Stiffness Tuning of Exoskeleton Robot H2 by Tacit Learning. *Lecture Notes in Computer Science*, **2015**, 138-144	0.9	5
70	Evaluation of IMU ZigBee Sensors for Upper Limb Rehabilitation. *Biosystems and Biorobotics*, **2013**, 461-465	0.2	5
69	Comparison of Intramuscular and Surface Electromyography Recordings Towards the Control of Wearable Robots for Incomplete Spinal Cord Injury Rehabilitation **2020**,		5
68	Simultaneous estimation of human and exoskeleton motion: A simplified protocol. *IEEE International Conference on Rehabilitation Robotics*, **2017**, 2017, 1431-1436	1.3	4
67	EMG-based Motion Intention Recognition for Controlling a Powered Knee Orthosis **2019**,		4
66	Influence of the robotic exoskeleton Lokomat on the control of human gait: An electromyographic and kinematic analysis **2013**,		4
65	Attention Level Measurement During Exoskeleton Rehabilitation Through a BMI System. *Biosystems and Biorobotics*, **2017**, 243-247	0.2	4
64	Symbiotic Wearable Robotic Exoskeletons: The Concept of the BioMot Project. *Lecture Notes in Computer Science*, **2014**, 72-83	0.9	4
63	ADAPTIVE REAL-TIME TOOL FOR HUMAN GAIT EVENT DETECTION USING A WEARABLE GYROSCOPE **2017**,		4
62	Realtime EMG analysis for transcutaneous electrical stimulation assisted gait training in stroke patients. *IFAC-PapersOnLine*, **2016**, 49, 183-187	0.7	4

61	Assistive locomotion strategies for active lower limb devices **2017**,		3
60	Online Monitoring of Muscle Activity During Walking for Bio-feedback and for Observing the Effects of Transcutaneous Electrical Stimulation. *Biosystems and Biorobotics*, **2017**, 705-709	0.2	3
59	Detection of Subjects Intention to Trigger Transitions Between Sit, Stand and Walk with a Lower Limb Exoskeleton. *Biosystems and Biorobotics*, **2017**, 249-253	0.2	3
58	The New Generation of Compliant Actuators for Use in Controllable Bio-Inspired Wearable Robots. *Biosystems and Biorobotics*, **2017**, 255-259	0.2	3
57	Rationale for Multiple Compensation of Muscle Weakness Walking with a Wearable Robotic Orthosis		3
56	An EMG Pattern Comparison of Exoskeleton vs. End-Effector Robotic Device for Assisted Walking Training. *Biosystems and Biorobotics*, **2014**, 563-567	0.2	3
55	Physiological Evaluation of Different Control Modes of Lower Limb Robotic Exoskeleton H2 in Patients with Incomplete Spinal Cord Injury. *Biosystems and Biorobotics*, **2017**, 343-348	0.2	3
54	Hybrid FES-Robot Cooperative Control of Ambulatory Gait Rehabilitation Exoskeleton for Spinal Cord Injured Users. *Biosystems and Biorobotics*, **2013**, 155-159	0.2	3
53	Testing the Generation of Speed-Dependent Gait Trajectories to Control a 6DoF Overground Exoskeleton. *Lecture Notes in Computer Science*, **2015**, 495-501	0.9	3
52	Hybrid Wearable Robotic Exoskeletons for Human Walking **2020**, 347-364		3
51	EMG-driven models of human-machine interaction in individuals wearing the H2 exoskeleton**This work was supported by the ERC Advanced Grant DEMOVE [267888]. *IFAC-PapersOnLine*, **2016**, 49, 200-203	0.7	3
50	Transcranial direct current stimulation combined with robotic therapy for upper and lower limb function after stroke: a systematic review and meta-analysis of randomized control trials. *Journal of NeuroEngineering and Rehabilitation*, **2021**, 18, 148	5.3	3
49	Wearable robotics for motion assistance and rehabilitation. *Robotics and Autonomous Systems*, **2015**, 73, 1-3	3.5	2
48	Implementation of feature extraction methods and support vector machine for classification of partial body weight supports in overground robot-aided walking **2015**,		2
47	Wearable Robotics for Motion Assistance and Rehabilitation [TC Spotlight]. *IEEE Robotics and Automation Magazine*, **2018**, 25, 19-28	3.4	2
46	Theoretical approach for designing the rehabilitation robot controller. *Advanced Robotics*, **2019**, 33, 674-686	1.7	2
45	Towards an ankle neuroprosthesis for hybrid robotics: Concepts and current sources for functional electrical stimulation. *IEEE International Conference on Rehabilitation Robotics*, **2017**, 2017, 1660-1665	1.3	2
44	Instrumented insole system for ambulatory and robotic walking assistance: First advances **2017**,		2

43	Flexible and large area pressure sensors for human-neuroprostheses and human-neurorobotic interface assessment. *Microsystem Technologies*, **2012**, 18, 1155-1161	1.7	2
42	Mechatronics and bioinspiration in actuator design and control. *Applied Bionics and Biomechanics*, **2008**, 5, 127-133	1.6	2
41	Biomedical instrumentation based on piezoelectric ceramics. *Journal of the European Ceramic Society*, **2007**, 27, 4191-4194	6	2
40	Assessment of gait symmetry, torque interaction and muscular response due to the unilateral assistance provided by an active knee orthosis in healthy subjects **2020**,		2
39	Emerging Techniques for Assessment of Sensorimotor Impairments after Spinal Cord Injury **2016**,		2
38	VALIDATION OF GAIT EVENTS DETECTOR USING ADAPTIVE THRESHOLDS IN HUMANOID ROBOT **2016**, 9-17		2
37	Noninvasive Modalities Used in Spinal Cord Injury Rehabilitation **2019**,		2
36	Outcome measures and motion capture systems for assessing lower limb orthosis-based interventions after stroke: a systematic review. *Disability and Rehabilitation: Assistive Technology*, **2021**, 16, 674-683	1.8	2
35	Tacit adaptability on submaximal force control for ankle robotic training **2019**,		1
34	Analysis of muscle activation patterns during walking in patients with foot drop: insights for the design of an advanced FES controller **2019**,		1
33	Real-Time Modeling for Lower Limb Exoskeletons. *Biosystems and Biorobotics*, **2017**, 127-131	0.2	1
32	Joint stiffness modulation of compliant actuators for lower limb exoskeletons. *IEEE International Conference on Rehabilitation Robotics*, **2017**, 2017, 1287-1292	1.3	1
31	Exoskeletal Robotics for Functional Substitution **2013**, 327-348		1
30	A dynamically consistent model of a motorized ankle-foot orthosis **2013**,		1
29	Continuous assessment of gait stability in limit cycle walkers **2010**,		1
28	Wearable Lower Limb and Full-Body Robots283-321		1
27	Robotic Platform with Visual Paradigm to Induce Motor Learning in Healthy Subjects. *Advances in Intelligent Systems and Computing*, **2018**, 569-579	0.4	1
26	Feedback-Error Learning Control for Powered Assistive Devices. *IFMBE Proceedings*, **2020**, 1998-2013	0.2	1

25	Feasibility of Submaximal Force Control Training for Robot-Mediated Therapy After Stroke. *Biosystems and Biorobotics*, **2019**, 256-260	0.2	1
24	User Involvement, Device Safety, and Outcome Measures During Development of Walking Exoskeletons: Current Practices. *Biosystems and Biorobotics*, **2020**, 157-163	0.2	1
23	Muscular Activation and Kinetic Effects of Robotic Guidance Force on Human Walking. *Biosystems and Biorobotics*, **2013**, 787-791	0.2	1
22	Knee Muscle Fatigue Estimation during Isometric Artificially Elicited Contractions in Incomplete Spinal Cord Injured Subjects. *Biosystems and Biorobotics*, **2013**, 327-332	0.2	1
21	Muscle Activity and Coordination During Robot-Assisted Walking with H2 Exoskeleton. *Biosystems and Biorobotics*, **2017**, 349-353	0.2	1
20	Analysis of the Effect of Two Different Feedbacks on the Biomechanical Patterns of Stroke Patients during Robotic-Assisted Gait Rehabilitation. *Biosystems and Biorobotics*, **2013**, 821-825	0.2	1
19	Design and Implementation of a Novel Semi-Active Hybrid Unilateral Stance Control Knee Ankle Foot Orthosis **2018**,		1
18	An EMG-informed Model to Evaluate Assistance of the Biomot Compliant Ankle Actuator. *Biosystems and Biorobotics*, **2017**, 261-265	0.2	0
17	Adaptation Strategies for Personalized Gait Neuroprosthetics.. *Frontiers in Neurorobotics*, **2021**, 15, 750519	3.4	0
16	A Robot-Assisted Therapy to Increase Muscle Strength in Hemiplegic Gait Rehabilitation.. *Frontiers in Neurorobotics*, **2022**, 16, 837494	3.4	0
15	Characterization and Evaluation of Human-Exoskeleton Interaction Dynamics: A Review. *Sensors*, **2022**, 22, 3993	3.8	0
14	Characterization of a Dual PID-ILC FES Controller for FES-Robot Control of Swing Phase of Walking. *Biosystems and Biorobotics*, **2014**, 341-349	0.2	
13	Testing FES of Ankle Plantarflexor and Dorsiflexor Muscles to Support Unilateral Gait Disorders. *Biosystems and Biorobotics*, **2019**, 434-438	0.2	
12	A Pilot Study on the Feasibility of Hybrid Gait Training with Kinesis Overground Robot for Persons with Incomplete Spinal Cord Injury. *Springer Series in Computational Neuroscience*, **2015**, 19-27	1.1	
11	Proposal for Clinical Validation of Lower Limb Robotic Exoskeleton in Patients with Incomplete Spinal Cord Injury. *Biosystems and Biorobotics*, **2017**, 1439-1443	0.2	
10	Tacit Adaptability of a Mechanically Adjustable Compliance and Controllable Equilibrium Position Actuator, a Preliminary Study. *Biosystems and Biorobotics*, **2017**, 267-271	0.2	
9	Neuromuscular Control of Dynamic Joint Stabilization with a Knee Brace: Implications to Improve Muscle and Balance Control. *Biosystems and Biorobotics*, **2013**, 167-171	0.2	
8	Effect of Gait Speed on Dynamic Postural Stability, Harmony and Upper Body Attenuation. *Biosystems and Biorobotics*, **2013**, 753-757	0.2	

List of Publications

7	Simulation Platform for Dynamic Modeling of Lower Limb Rehabilitation Exoskeletons: Exo-H3 Case Study. *Biosystems and Biorobotics*, **2022**, 425-428	0.2
6	Erratum to Gait Event Detection in Controlled and Real-Life Situations: Repeated Measures From Healthy Subjects *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2019**, 27, 105-105	4.8
5	Lower Limb Exoskeletons in Latin-America. *Biosystems and Biorobotics*, **2019**, 206-209	0.2
4	Pseudo-online Muscle Onset Detection Algorithm with Threshold Auto-Adjustment for Lower Limb Exoskeleton Control. *Biosystems and Biorobotics*, **2022**, 275-279	0.2
3	Effect of posture and body weight loading on spinal posterior root reflex responses. *European Journal of Neuroscience*, **2021**, 54, 6575-6586	3.5
2	Exploiting VR and AR Technologies in Education and Training to Inclusive Robotics. *Studies in Computational Intelligence*, **2021**, 115-126	0.8
1	Hybrid Robotics and Neuroprosthetics for Associative Neurorehabilitation **2022**, 1-22	