Laura Marchal-Crespo

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Review of control strategies for robotic movement training after neurologic injury. Journal of NeuroEngineering and Rehabilitation, 2009, 6, 20.	4.6	887
2	BDNF Val66Met Polymorphism Influences Motor System Function in the Human Brain. Cerebral Cortex, 2010, 20, 1254-1262.	2.9	191
3	Haptic Guidance Can Enhance Motor Learning of a Steering Task. Journal of Motor Behavior, 2008, 40, 545-557.	0.9	133
4	Sonification and haptic feedback in addition to visual feedback enhances complex motor task learning. Experimental Brain Research, 2015, 233, 909-925.	1.5	129
5	Comparison of error-amplification and haptic-guidance training techniques for learning of a timing-based motor task by healthy individuals. Experimental Brain Research, 2010, 201, 119-131.	1.5	122
6	The effect of haptic guidance, aging, and initial skill level on motor learning of a steering task. Experimental Brain Research, 2010, 201, 209-220.	1.5	118
7	The effect of haptic guidance and visual feedback on learning a complex tennis task. Experimental Brain Research, 2013, 231, 277-291.	1.5	76
8	Detection of motor execution using a hybrid fNIRS-biosignal BCI: a feasibility study. Journal of NeuroEngineering and Rehabilitation, 2013, 10, 4.	4.6	65
9	A robotic wheelchair trainer: design overview and a feasibility study. Journal of NeuroEngineering and Rehabilitation, 2010, 7, 40.	4.6	60
10	Brain activation associated with active and passive lower limb stepping. Frontiers in Human Neuroscience, 2014, 8, 828.	2.0	56
11	Effect of Error Augmentation on Brain Activation and Motor Learning of a Complex Locomotor Task. Frontiers in Neuroscience, 2017, 11, 526.	2.8	50
12	Learning a locomotor task: with or without errors?. Journal of NeuroEngineering and Rehabilitation, 2014, 11, 25.	4.6	48
13	Haptic Training: Which Types Facilitate (re)Learning of Which Motor Task and for Whom? Answers by a Review. IEEE Transactions on Haptics, 2021, 14, 722-739.	2.7	32
14	Effect of immersive visualization technologies on cognitive load, motivation, usability, and embodiment. Virtual Reality, 2023, 27, 307-331.	6.1	32
15	Optimizing learning of a locomotor task: Amplifying errors as needed. , 2014, 2014, 5304-7.		30
16	The Effect of Haptic Guidance on Learning a Hybrid Rhythmic-Discrete Motor Task. IEEE Transactions on Haptics, 2015, 8, 222-234.	2.7	29
17	Haptic Error Modulation Outperforms Visual Error Amplification When Learning a Modified Gait Pattern. Frontiers in Neuroscience, 2019, 13, 61.	2.8	28
18	Effect of robotic guidance on motor learning of a timing task. , 2008, , .		26

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19	The effectiveness of robotic training depends on motor task characteristics. Experimental Brain Research, 2017, 235, 3799-3816.	1.5	26
20	Therapist-Guided Tablet-Based Telerehabilitation for Patients With Aphasia: Proof-of-Concept and Usability Study. JMIR Rehabilitation and Assistive Technologies, 2019, 6, e13163.	2.2	26
21	The role of skill level and motor task characteristics on the effectiveness of robotic training: first results. , 2015, , .		25
22	Validity of pervasive computing based continuous physical activity assessment in community-dwelling old and oldest-old. Scientific Reports, 2019, 9, 9662.	3.3	25
23	Some Key Problems for Robot-Assisted Movement Therapy Research: A Perspective from the University of California at Irvine. , 2007, , .		22
24	Assistance or challenge? Filling a gap in user-cooperative control. , 2011, , .		22
25	Comparing the Relaxing Effects of Different Virtual Reality Environments in the Intensive Care Unit: Observational Study. JMIR Perioperative Medicine, 2019, 2, e15579.	1.0	22
26	Virtual Reality Environments and Haptic Strategies to Enhance Implicit Learning and Motivation in Robot-Assisted Training. , 2019, 2019, 760-765.		18
27	Test-retest reliability of fMRI experiments during robot-assisted active and passive stepping. Journal of NeuroEngineering and Rehabilitation, 2015, 12, 102.	4.6	17
28	Motor execution detection based on autonomic nervous system responses. Physiological Measurement, 2013, 34, 35-51.	2.1	16
29	Towards more efficient robotic gait training: A novel controller to modulate movement errors. , 2016, , .		15
30	An fMRI pilot study to evaluate brain activation associated with locomotion adaptation. , 2011, 2011, 5975371.		14
31	Synthesis and control of an assistive robotic tennis trainer. , 2012, , .		14
32	Neural circuits activated by error amplification and haptic guidance training techniques during performance of a timing-based motor task by healthy individuals. Experimental Brain Research, 2018, 236, 3085-3099.	1.5	14
33	Towards functional robotic training: motor learning of dynamic tasks is enhanced by haptic rendering but hampered by arm weight support. Journal of NeuroEngineering and Rehabilitation, 2022, 19, 19.	4.6	14
34	On the Modulation of Brain Activation During Simulated Weight Bearing in Supine Gait-Like Stepping. Brain Topography, 2016, 29, 193-205.	1.8	13
35	Experimental Evaluation of a Mixed Controller That Amplifies Spatial Errors and Reduces Timing Errors. Frontiers in Robotics and AI, 2017, 4, .	3.2	13
36	Non-linear adaptive controllers for an over-actuated pneumatic MR-compatible stepper. Medical and Biological Engineering and Computing, 2013, 51, 799-809.	2.8	12

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37	Robot-assisted gait training. , 2018, , 227-240.		12
38	Reaching in Several Realities: Motor and Cognitive Benefits of Different Visualization Technologies. , 2019, 2019, 1037-1042.		12
39	Promoting Motor Variability During Robotic Assistance Enhances Motor Learning of Dynamic Tasks. Frontiers in Neuroscience, 2020, 14, 600059.	2.8	12
40	A Novel Clinical-Driven Design for Robotic Hand Rehabilitation: Combining Sensory Training, Effortless Setup, and Large Range of Motion in a Palmar Device. Frontiers in Neurorobotics, 2021, 15, 748196.	2.8	11
41	Towards a BCI for sensorimotor training: Initial results from simultaneous fNIRS and biosignal recordings. , 2011, 2011, 6339-43.		10
42	Congruency of Information Rather Than Body Ownership Enhances Motor Performance in Highly Embodied Virtual Reality. Frontiers in Neuroscience, 2021, 15, 678909.	2.8	10
43	A reconfigurable, tendon-based haptic interface for research into human-environment interactions. Robotica, 2013, 31, 441-453.	1.9	9
44	Visual and Haptic Error Modulating Controllers for Robotic Gait Training. , 2018, , .		9
45	Rowing Simulator Modulates Water Density to Foster Motor Learning. Frontiers in Robotics and AI, 2019, 6, 74.	3.2	9
46	â€œTricking the Brainâ€•Using Immersive Virtual Reality: Modifying the Self-Perception Over Embodied Avatar Influences Motor Cortical Excitability and Action Initiation. Frontiers in Human Neuroscience, 2021, 15, 787487.	2.0	9
47	Hiding Assistive Robots During Training in Immersive VR Does Not Affect Usersâ€™ Motivation, Presence, Embodiment, Performance, Nor Visual Attention. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 390-399.	4.9	7
48	Haptic Rendering Modulates Task Performance, Physical Effort and Movement Strategy during Robot-Assisted Training. , 2020, , .		6
49	Multi-purpose Robotic Training Strategies for Neurorehabilitation with Model Predictive Controllers. , 2019, 2019, 754-759.		5
50	Development of an Active Cable-Driven, Force-Controlled Robotic System for Walking Rehabilitation. Frontiers in Neurorobotics, 2021, 15, 651177.	2.8	4
51	Physiological noise cancellation in fNIRS using an adaptive filter based on mutual information. , 2014, , .		3
52	Evaluation of a mixed controller that amplifies spatial errors while reducing timing errors. , 2016, 2016, 5136-5139.		3
53	Do we need complex rehabilitation robots for training complex tasks?. , 2019, 2019, 1085-1090.		3
54	Providing Task Instructions During Motor Training Enhances Performance and Modulates Attentional Brain Networks. Frontiers in Neuroscience, 2021, 15, 755721.	2.8	3

#	ARTICLE	IF	CITATIONS
55	The Learning Benefits of Haptic Guidance Are Age-Dependent. Biosystems and Biorobotics, 2014, , 65-73.	0.3	2
56	Assistance or challenge? Filling a gap in user-cooperative control. , 2011, , .		1
57	Whatâ€™s Your Next Move? Detecting Movement Intention for Stroke Rehabilitation. Springer Briefs in Electrical and Computer Engineering, 2013, , 23-37.	0.5	1
58	Detecting motion intention in stroke survivors using autonomic nervous system responses. , 2015, , .		1
59	Assessing Touch Sensibility with a Robotic System for Sensory Rehabilitation. , 2021, , .		1
60	Balancing objects on the feet — An fMRI experiment using the MR-compatible stepper MARCOS. , 2012, , .		0
61	Towards Functional Robotic Rehabilitation: Clinical-Driven Development of a Novel Device for Sensorimotor Hand Training. , 2021, , .		0