Marianna Semprini

List of Publications by Year
in descending order

45 papers	639 citations	687220 13 h-index	677027 22 g-index
48 all docs	48 docs citations	48 times ranked	745 citing authors

#	Article	IF	Citations
1	The Hannes hand prosthesis replicates the key biological properties of the human hand. Science Robotics, 2020, 5, .	9.9	102
2	Perspectives and Challenges in Robotic Neurorehabilitation. Applied Sciences (Switzerland), 2019, 9, 3183.	1.3	68
3	New perspectives on the dialogue between brains and machines. Frontiers in Neuroscience, 2010, 4, 44.	1.4	51
4	Technological Approaches for Neurorehabilitation: From Robotic Devices to Brain Stimulation and Beyond. Frontiers in Neurology, 2018, 9, 212.	1.1	49
5	Robot-Assisted Proprioceptive Training with Added Vibro-Tactile Feedback Enhances Somatosensory and Motor Performance. PLoS ONE, 2016, 11, e0164511.	1.1	48
6	Progress in Neuroengineering for brain repair: New challenges and open issues. Brain and Neuroscience Advances, 2018, 2, 239821281877647.	1.8	27
7	Shaping the Dynamics of a Bidirectional Neural Interface. PLoS Computational Biology, 2012, 8, e1002578.	1.5	24
8	Consolidation of human somatosensory memory during motor learning. Behavioural Brain Research, 2018, 347, 184-192.	1.2	23
9	A Glialâ€Silicon Nanowire Electrode Junction Enabling Differentiation and Noninvasive Recording of Slow Oscillations from Primary Astrocytes. Advanced Biology, 2020, 4, e1900264.	3.0	20
10	Neuromechanical Biomarkers for Robotic Neurorehabilitation. Frontiers in Neurorobotics, 2021, 15, 742163.	1.6	20
11	Biofeedback Signals for Robotic Rehabilitation: Assessment of Wrist Muscle Activation Patterns in Healthy Humans. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 883-892.	2.7	19
12	User-Centered Design and Development of the Modular TWIN Lower Limb Exoskeleton. Frontiers in Neurorobotics, 2021, 15, 709731.	1.6	18
13	A parametric study of intracortical microstimulation in behaving rats for the development of artificial sensory channels. , 2012, 2012, 799-802.		17
14	A Bidirectional Brain-Machine Interface Algorithm That Approximates Arbitrary Force-Fields. PLoS ONE, 2014, 9, e91677.	1.1	14
15	A bidirectional brain-machine interface connecting alert rodents to a dynamical system. , 2015, 2015, 51-4.		12
16	Modulation of neural oscillations during working memory update, maintenance, and readout: An <scp>hdEEG</scp> study. Human Brain Mapping, 2021, 42, 1153-1166.	1.9	11
17	Yet another artefact rejection study: an exploration of cleaning methods for biological and neuromodulatory noise. Journal of Neural Engineering, 2021, 18, 0460c2.	1.8	11
18	Closed-Loop Systems and In Vitro Neuronal Cultures: Overview and Applications. Advances in Neurobiology, 2019, 22, 351-387.	1.3	10

#	Article	IF	Citations
19	Performance Evaluation of Pattern Recognition Algorithms for Upper Limb Prosthetic Applications. , 2020, , .		10
20	Hannes Prosthesis Control Based on Regression Machine Learning Algorithms. , 2021, , .		10
21	Robot-assisted training to improve proprioception does benefit from added vibro-tactile feedback. , 2015, 2015, 258-61.		9
22	Intelligent biohybrid systems for functional brain repair. European Journal of Molecular and Clinical Medicine, 2017, 3, 162.	0.5	9
23	Dynamic brain-machine interface: A novel paradigm for bidirectional interaction between brains and dynamical systems. , 2011, 2011, 4592-5.		8
24	Miniature EMG Sensors for Prosthetic Applications. , 2021, , .		8
25	The impact of closed-loop intracortical stimulation on neural activity in brain-injured, anesthetized animals. Bioelectronic Medicine, 2022, 8, 4.	1.0	6
26	Removal of tACS artefact: a simulation study for algorithm comparison. , 2019, , .		5
27	Neuro-Gerontechnologies: Applications and Opportunities. Studies in Computational Intelligence, 2022, , 123-153.	0.7	5
28	A wireless microsystem with digital data compression for neural spike recording. Microelectronic Engineering, 2011, 88, 1672-1675.	1.1	4
29	Proprioceptive assessment of the wrist joint across both joint degrees of freedom. , 2015, , .		4
30	Using robots to advance clinical translation in neurorehabilitation. Science Robotics, 2022, 7, eabo1966.	9.9	3
31	A Compact and Autoclavable System for Acute Extracellular Neural Recording and Brain Pressure Monitoring for Humans. IEEE Transactions on Biomedical Circuits and Systems, 2015, 9, 50-59.	2.7	2
32	Muscle innervation patterns for human wrist control: Useful biofeedback signals for robotic rehabilitation?. , 2015, , .		2
33	Bidirectional Brainâ€“Machine Interfaces. , 2016, , 201-212.		2
34	Small-World Propensity Reveals the Frequency Specificity of Resting State Networks. IEEE Open Journal of Engineering in Medicine and Biology, 2020, 1, 57-64.	1.7	2
35	Investigating the spectral features of the brain mesoâ€scale structure at rest. Human Brain Mapping, 2021, 42, 5113-5129.	1.9	2
36	A study on the effect of multisensory stimulation in behaving rats. , 2016, 2016, 4707-4710.		1

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37	Clinical evaluation of Hannes: measuring the usability of a novel polyarticulated prosthetic hand. , 2022, , 205-225.		1
38	Editorial: Improving Neuroprosthetics Through Novel Techniques for Processing Electrophysiological Human Brain Signals. Frontiers in Neuroscience, 0, 16, .	1.4	1
39	A Multi-Channel Low-Power System-on-Chip for in Vivo Recording and Wireless Transmission of Neural Spikes. Journal of Low Power Electronics and Applications, 2012, 2, 211-241.	1.3	0
40	A non-linear mapping algorithm shaping the control policy of a bidirectional brain machine interface. , 2016, 2016, 3052-3055.		0
41	Neuroengineering Tools For Studying The Effect Of Intracortical Microstimulation In Rodent Models. , 2018, 2018, 3076-3079.		0
42	Closed-loop electrophysiology: Past, present and future perspectives and applications. , 2018, , .		0
43	A pipeline integrating high-density EEG analysis and graph theory: a feasibility study on resting state functional connectivity. , 2019, , .		0
44	Extracellular Recording Systems: A Glialâ€Silicon Nanowire Electrode Junction Enabling Differentiation and Noninvasive Recording of Slow Oscillations from Primary Astrocytes (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 457	3.0	0
45	A Multimodular System to Study the Impact of a Focal Lesion in Neuronal Cell Cultures. Lecture Notes in Computer Science, 2019, , 3-15.	1.0	0