Marianna Semprini

List of Publications by Year
in descending order

45 papers	639 citations	687363 13 h-index	677142 22 g-index
48 all docs	48 docs citations	48 times ranked	745 citing authors

#	Article	IF	Citations
1	Clinical evaluation of Hannes: measuring the usability of a novel polyarticulated prosthetic hand. , 2022, , 205-225.		1
2	Neuro-Gerontechnologies: Applications and Opportunities. Studies in Computational Intelligence, 2022, , 123-153.	0.9	5
3	The impact of closed-loop intracortical stimulation on neural activity in brain-injured, anesthetized animals. Bioelectronic Medicine, 2022, 8, 4.	2.3	6
4	Using robots to advance clinical translation in neurorehabilitation. Science Robotics, 2022, 7, eabo1966.	17.6	3
5	Modulation of neural oscillations during working memory update, maintenance, and readout: An <scp>hdEEG</scp> study. Human Brain Mapping, 2021, 42, 1153-1166.	3.6	11
6	Miniature EMG Sensors for Prosthetic Applications. , 2021, , .		8
7	Investigating the spectral features of the brain mesoâ€scale structure at rest. Human Brain Mapping, 2021, 42, 5113-5129.	3.6	2
8	Yet another artefact rejection study: an exploration of cleaning methods for biological and neuromodulatory noise. Journal of Neural Engineering, 2021, 18, 0460c2.	3.5	11
9	Neuromechanical Biomarkers for Robotic Neurorehabilitation. Frontiers in Neurorobotics, 2021, 15, 742163.	2.8	20
10	User-Centered Design and Development of the Modular TWIN Lower Limb Exoskeleton. Frontiers in Neurorobotics, 2021, 15, 709731.	2.8	18
11	Hannes Prosthesis Control Based on Regression Machine Learning Algorithms. , 2021, , .		10
12	Performance Evaluation of Pattern Recognition Algorithms for Upper Limb Prosthetic Applications. , 2020, , .		10
13	The Hannes hand prosthesis replicates the key biological properties of the human hand. Science Robotics, 2020, 5, .	17.6	102
14	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
15	Small-World Propensity Reveals the Frequency Specificity of Resting State Networks. IEEE Open Journal of Engineering in Medicine and Biology, 2020, 1, 57-64.	2.3	2
16	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 50 137	3.0	0
17	Removal of tACS artefact: a simulation study for algorithm comparison. , 2019, , .		5
18	A pipeline integrating high-density EEG analysis and graph theory: a feasibility study on resting state functional connectivity. , 2019, , .		0

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19	Perspectives and Challenges in Robotic Neurorehabilitation. Applied Sciences (Switzerland), 2019, 9, 3183.	2.5	68
20	Closed-Loop Systems and In Vitro Neuronal Cultures: Overview and Applications. Advances in Neurobiology, 2019, 22, 351-387.	1.8	10
21	A Multimodular System to Study the Impact of a Focal Lesion in Neuronal Cell Cultures. Lecture Notes in Computer Science, 2019, , 3-15.	1.3	0
22	Consolidation of human somatosensory memory during motor learning. Behavioural Brain Research, 2018, 347, 184-192.	2.2	23
23	Neuroengineering Tools For Studying The Effect Of Intracortical Microstimulation In Rodent Models. , 2018, 2018, 3076-3079.		0
24	Closed-loop electrophysiology: Past, present and future perspectives and applications. , 2018, , .		0
25	Technological Approaches for Neurorehabilitation: From Robotic Devices to Brain Stimulation and Beyond. Frontiers in Neurology, 2018, 9, 212.	2.4	49
26	Progress in Neuroengineering for brain repair: New challenges and open issues. Brain and Neuroscience Advances, 2018, 2, 239821281877647.	3.4	27
27	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.	4.9	19
28	Intelligent biohybrid systems for functional brain repair. European Journal of Molecular and Clinical Medicine, 2017, 3, 162.	0.1	9
29	Bidirectional Brainâ€“Machine Interfaces. , 2016, , 201-212.		2
30	A non-linear mapping algorithm shaping the control policy of a bidirectional brain machine interface. , 2016, 2016, 3052-3055.		0
31	A study on the effect of multisensory stimulation in behaving rats. , 2016, 2016, 4707-4710.		1
32	Robot-Assisted Proprioceptive Training with Added Vibro-Tactile Feedback Enhances Somatosensory and Motor Performance. PLoS ONE, 2016, 11, e0164511.	2.5	48
33	Proprioceptive assessment of the wrist joint across both joint degrees of freedom. , 2015, , .		4
34	Robot-assisted training to improve proprioception does benefit from added vibro-tactile feedback. , 2015, 2015, 258-61.		9
35	A bidirectional brain-machine interface connecting alert rodents to a dynamical system. , 2015, 2015, 51-4.		12
36	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.	4.0	2

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37	Muscle innervation patterns for human wrist control: Useful biofeedback signals for robotic rehabilitation?. , 2015, , .		2
38	A Bidirectional Brain-Machine Interface Algorithm That Approximates Arbitrary Force-Fields. PLoS ONE, 2014, 9, e91677.	2.5	14
39	Shaping the Dynamics of a Bidirectional Neural Interface. PLoS Computational Biology, 2012, 8, e1002578.	3.2	24
40	A parametric study of intracortical microstimulation in behaving rats for the development of artificial sensory channels. , 2012, 2012, 799-802.		17
41	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.	2.0	0
42	Dynamic brain-machine interface: A novel paradigm for bidirectional interaction between brains and dynamical systems. , 2011, 2011, 4592-5.		8
43	A wireless microsystem with digital data compression for neural spike recording. Microelectronic Engineering, 2011, 88, 1672-1675.	2.4	4
44	New perspectives on the dialogue between brains and machines. Frontiers in Neuroscience, 2010, 4, 44.	2.8	51
45	Editorial: Improving Neuroprosthetics Through Novel Techniques for Processing Electrophysiological Human Brain Signals. Frontiers in Neuroscience, 0, 16, .	2.8	1