Marco Capogrosso

List of Publications by Year
in descending order

36 papers	5,011 citations	304368 22 h-index	414034 32 g-index
44 all docs	44 docs citations	44 times ranked	5031 citing authors

#	Article	IF	Citations
1	Electronic dura mater for long-term multimodal neural interfaces. Science, 2015, 347, 159-163.	6.0	845
2	Restoring Natural Sensory Feedback in Real-Time Bidirectional Hand Prostheses. Science Translational Medicine, 2014, 6, 222ra19.	5.8	805
3	Targeted neurotechnology restores walking in humans with spinal cord injury. Nature, 2018, 563, 65-71.	13.7	708
4	A brainâ€"spine interface alleviating gait deficits after spinal cord injury in primates. Nature, 2016, 539, 284-288.	13.7	492
5	A Computational Model for Epidural Electrical Stimulation of Spinal Sensorimotor Circuits. Journal of Neuroscience, 2013, 33, 19326-19340.	1.7	320
6	Spatiotemporal neuromodulation therapies engaging muscle synergies improve motor control after spinal cord injury. Nature Medicine, 2016, 22, 138-145.	15.2	274
7	Electrical spinal cord stimulation must preserve proprioception to enable locomotion in humans with spinal cord injury. Nature Neuroscience, 2018, 21, 1728-1741.	7.1	247
8	Activity-dependent spinal cord neuromodulation rapidly restores trunk and leg motor functions after complete paralysis. Nature Medicine, 2022, 28, 260-271.	15.2	174
9	Mechanisms Underlying the Neuromodulation of Spinal Circuits for Correcting Gait and Balance Deficits after Spinal Cord Injury. Neuron, 2016, 89, 814-828.	3.8	144
10	A Computational Model for the Stimulation of Rat Sciatic Nerve Using a Transverse Intrafascicular Multichannel Electrode. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2011, 19, 333-344.	2.7	97
11	Configuration of electrical spinal cord stimulation through real-time processing of gait kinematics. Nature Protocols, 2018, 13, 2031-2061.	5.5	96
12	Neuroprosthetic baroreflex controls haemodynamics after spinal cord injury. Nature, 2021, 590, 308-314.	13.7	96
13	Recruitment of upper-limb motoneurons with epidural electrical stimulation of the cervical spinal cord. Nature Communications, 2021, 12, 435.	5.8	92
14	Biophysics of Temporal Interference Stimulation. Cell Systems, 2020, 11, 557-572.e5.	2.9	78
15	Soft, Implantable Bioelectronic Interfaces for Translational Research. Advanced Materials, 2020, 32, e1906512.	11.1	67
16	Chronic multichannel neural recordings from soft regenerative microchannel electrodes during gait. Scientific Reports, 2015, 5, 14363.	1.6	59
17	Experimental Validation of a Hybrid Computational Model for Selective Stimulation Using Transverse Intrafascicular Multichannel Electrodes. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2012, 20, 395-404.	2.7	53
18	A multidirectional gravity-assist algorithm that enhances locomotor control in patients with stroke or spinal cord injury. Science Translational Medicine, 2017, 9, .	5.8	42

#	Article	IF	Citations
19	Advantages of soft subdural implants for the delivery of electrochemical neuromodulation therapies to the spinal cord. Journal of Neural Engineering, 2018, 15, 026024.	1.8	41
20	Closed-loop control of trunk posture improves locomotion through the regulation of leg proprioceptive feedback after spinal cord injury. Scientific Reports, 2018, 8, 76.	1.6	30
21	Intrafascicular peripheral nerve stimulation produces fine functional hand movements in primates. Science Translational Medicine, 2021, 13, eabg6463.	5.8	30
22	Epidural electrical stimulation of the cervical dorsal roots restores voluntary upper limb control in paralyzed monkeys. Nature Neuroscience, 2022, 25, 924-934.	7.1	30
23	Neuroprosthetic technologies to augment the impact of neurorehabilitation after spinal cord injury. Annals of Physical and Rehabilitation Medicine, 2015, 58, 232-237.	1.1	26
24	Motor improvements enabled by spinal cord stimulation combined with physical training after spinal cord injury: review of experimental evidence in animals and humans. Bioelectronic Medicine, 2021, 7, 16.	1.0	25
25	A computational outlook on neurostimulation. Bioelectronic Medicine, 2020, 6, 10.	1.0	20
26	Poststroke arm and hand paresis: should we target the cervical spinal cord?. Trends in Neurosciences, 2022, 45, 568-578.	4.2	12
27	Preferential activation of proprioceptive and cutaneous sensory fibers compared to motor fibers during cervical transcutaneous spinal cord stimulation: A computational study. Journal of Neural Engineering, 2022, , .	1.8	11
28	Selective Recruitment of Arm Motoneurons in Nonhuman Primates Using Epidural Electrical Stimulation of the Cervical Spinal Cord. , 2018, 2018, 1424-1427.		10
29	Microneurography as a tool to develop decoding algorithms for peripheral neuro-controlled hand prostheses. BioMedical Engineering OnLine, 2019, 18, 44.	1.3	10
30	Bayesian optimization of peripheral intraneural stimulation protocols to evoke distal limb movements. Journal of Neural Engineering, 2021, 18, 066046.	1.8	9
31	Long-term functionality of a soft electrode array for epidural spinal cord stimulation in a minipig model. , 2018, 2018, 1432-1435.		8
32	Spatiotemporal Maps of Proprioceptive Inputs to the Cervical Spinal Cord During Three-Dimensional Reaching and Grasping. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 1668-1677.	2.7	8
33	Bioelectronic Interfaces: Soft, Implantable Bioelectronic Interfaces for Translational Research (Adv.) Tj ETQq1 1 0.784314 rgBT /Overlock	11.1	4
34	Anatomically Realistic Computational Model to Assess the Specificity of Epidural Electrical Stimulation of the Cervical Spinal Cord. Biosystems and Biorobotics, 2019, , 44-48.	0.2	3
35	A Computational Model of the Interaction Between Residual Cortico-Spinal Inputs and Spinal Cord Stimulation After Paralysis. , 2021, , .		2
36	A Computational Framework for the Design of Spinal Neuroprostheses. Biosystems and Biorobotics, 2017, , 23-27.	0.2	0