

Miguel A L Nicolelis

List of Publications by Year in descending order

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Version: 2024-02-01

62
papers

11,280
citations

101543

36
h-index

128289

60
g-index

65
all docs

65
docs citations

65
times ranked

8149
citing authors

#	ARTICLE	IF	CITATIONS
1	The impact of super-spreader cities, highways, and intensive care availability in the early stages of the COVID-19 epidemic in Brazil. <i>Scientific Reports</i> , 2021, 11, 13001.	3.3	48
2	Generating artificial sensations with spinal cord stimulation in primates and rodents. <i>Brain Stimulation</i> , 2021, 14, 825-836.	1.6	12
3	Neuroengineering challenges of fusing robotics and neuroscience. <i>Science Robotics</i> , 2020, 5, .	17.6	36
4	A Brain to Spine Interface for Transferring Artificial Sensory Information. <i>Scientific Reports</i> , 2020, 10, 900.	3.3	15
5	Creating a neuroprosthesis for active tactile exploration of textures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 21821-21827.	7.1	24
6	Non-invasive, Brain-controlled Functional Electrical Stimulation for Locomotion Rehabilitation in Individuals with Paraplegia. <i>Scientific Reports</i> , 2019, 9, 6782.	3.3	38
7	Decoding Movements from Cortical Ensemble Activity Using a Long Short-Term Memory Recurrent Network. <i>Neural Computation</i> , 2019, 31, 1085-1113.	2.2	30
8	Analysis of neuronal ensemble activity reveals the pitfalls and shortcomings of rotation dynamics. <i>Scientific Reports</i> , 2019, 9, 18978.	3.3	26
9	Interbrain cortical synchronization encodes multiple aspects of social interactions in monkey pairs. <i>Scientific Reports</i> , 2018, 8, 4699.	3.3	20
10	Training with brain-machine interfaces, visuo-tactile feedback and assisted locomotion improves sensorimotor, visceral, and psychological signs in chronic paraplegic patients. <i>PLoS ONE</i> , 2018, 13, e0206464.	2.5	32
11	Electrical stimulation of the dorsal columns of the spinal cord for Parkinson's disease. <i>Movement Disorders</i> , 2017, 32, 820-832.	3.9	51
12	Cortical neurons multiplex reward-related signals along with sensory and motor information. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E4841-E4850.	7.1	55
13	Brain-Machine Interfaces: From Basic Science to Neuroprostheses and Neurorehabilitation. <i>Physiological Reviews</i> , 2017, 97, 767-837.	28.8	409
14	Cortical Neuroprosthesis Merges Visible and Invisible Light Without Impairing Native Sensory Function. <i>ENeuro</i> , 2017, 4, ENEURO.0262-17.2017.	1.9	4
15	Wireless Cortical Brain-Machine Interface for Whole-Body Navigation in Primates. <i>Scientific Reports</i> , 2016, 6, 22170.	3.3	61
16	A Closed Loop Brain-machine Interface for Epilepsy Control Using Dorsal Column Electrical Stimulation. <i>Scientific Reports</i> , 2016, 6, 32814.	3.3	47
17	Long-Term Training with a Brain-Machine Interface-Based Gait Protocol Induces Partial Neurological Recovery in Paraplegic Patients. <i>Scientific Reports</i> , 2016, 6, 30383.	3.3	326
18	Assimilation of virtual legs and perception of floor texture by complete paraplegic patients receiving artificial tactile feedback. <i>Scientific Reports</i> , 2016, 6, 32293.	3.3	45

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19	Embedding a Panoramic Representation of Infrared Light in the Adult Rat Somatosensory Cortex through a Sensory Neuroprosthesis. <i>Journal of Neuroscience</i> , 2016, 36, 2406-2424.	3.6	26
20	An automatic experimental apparatus to study arm reaching in New World monkeys. <i>Journal of Neuroscience Methods</i> , 2016, 264, 57-64.	2.5	0
21	Building an organic computing device with multiple interconnected brains. <i>Scientific Reports</i> , 2015, 5, 11869.	3.3	63
22	Cortical and thalamic contributions to response dynamics across layers of the primary somatosensory cortex during tactile discrimination. <i>Journal of Neurophysiology</i> , 2015, 114, 1652-1676.	1.8	16
23	Joint cross-correlation analysis reveals complex, time-dependent functional relationship between cortical neurons and arm electromyograms. <i>Journal of Neurophysiology</i> , 2014, 112, 2865-2887.	1.8	10
24	Chronic, wireless recordings of large-scale brain activity in freely moving rhesus monkeys. <i>Nature Methods</i> , 2014, 11, 670-676.	19.0	358
25	Chronic Spinal Cord Electrical Stimulation Protects Against 6-hydroxydopamine Lesions. <i>Scientific Reports</i> , 2014, 4, 3839.	3.3	43
26	A Brain-Machine Interface Enables Bimanual Arm Movements in Monkeys. <i>Science Translational Medicine</i> , 2013, 5, 210ra154.	12.4	140
27	Perceiving invisible light through a somatosensory cortical prosthesis. <i>Nature Communications</i> , 2013, 4, 1482.	12.8	88
28	Simultaneous Top-down Modulation of the Primary Somatosensory Cortex and Thalamic Nuclei during Active Tactile Discrimination. <i>Journal of Neuroscience</i> , 2013, 33, 4076-4093.	3.6	46
29	High-Side Digitally Current Controlled Biphasic Bipolar Microstimulator. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2012, 20, 331-340.	4.9	15
30	Active tactile exploration using a brain-machine-brain interface. <i>Nature</i> , 2011, 479, 228-231.	27.8	605
31	Comprehensive Analysis of Tissue Preservation and Recording Quality from Chronic Multielectrode Implants. <i>PLoS ONE</i> , 2011, 6, e27554.	2.5	94
32	Changes in S1 Neural Responses During Tactile Discrimination Learning. <i>Journal of Neurophysiology</i> , 2010, 104, 300-312.	1.8	52
33	Unscented Kalman Filter for Brain-Machine Interfaces. <i>PLoS ONE</i> , 2009, 4, e6243.	2.5	165
34	Spinal Cord Stimulation Restores Locomotion in Animal Models of Parkinson's Disease. <i>Science</i> , 2009, 323, 1578-1582.	12.6	257
35	Principles of neural ensemble physiology underlying the operation of brain-machine interfaces. <i>Nature Reviews Neuroscience</i> , 2009, 10, 530-540.	10.2	362
36	Three-dimensional, automated, real-time video system for tracking limb motion in brain-machine interface studies. <i>Journal of Neuroscience Methods</i> , 2009, 180, 224-233.	2.5	24

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37	Persistent Hyperdopaminergia Decreases the Peak Frequency of Hippocampal Theta Oscillations during Quiet Waking and REM Sleep. <i>PLoS ONE</i> , 2009, 4, e5238.	2.5	19
38	Brain-machine interfaces: past, present and future. <i>Trends in Neurosciences</i> , 2006, 29, 536-546.	8.6	1,438
39	Computing with thalamocortical ensembles during different behavioural states. <i>Journal of Physiology</i> , 2005, 566, 37-47.	2.9	27
40	Layer-Specific Somatosensory Cortical Activation During Active Tactile Discrimination. <i>Science</i> , 2004, 304, 1989-1992.	12.6	186
41	Brain-machine interfaces to restore motor function and probe neural circuits. <i>Nature Reviews Neuroscience</i> , 2003, 4, 417-422.	10.2	488
42	Chronic, multisite, multielectrode recordings in macaque monkeys. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 11041-11046.	7.1	736
43	Learning to Control a Brain-Machine Interface for Reaching and Grasping by Primates. <i>PLoS Biology</i> , 2003, 1, e42.	5.6	1,427
44	Dynamic shifting in thalamocortical processing during different behavioural states. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2002, 357, 1753-1758.	4.0	25
45	Depression at Thalamocortical Synapses. <i>Neuron</i> , 2002, 34, 331-332.	8.1	7
46	Multielectrode recordings: the next steps. <i>Current Opinion in Neurobiology</i> , 2002, 12, 602-606.	4.2	111
47	Thalamocortical optimization of tactile processing according to behavioral state. <i>Nature Neuroscience</i> , 2002, 5, 517-523.	14.8	127
48	Behavioral Properties of the Trigeminal Somatosensory System in Rats Performing Whisker-Dependent Tactile Discriminations. <i>Journal of Neuroscience</i> , 2001, 21, 5752-5763.	3.6	229
49	Actions from thoughts. <i>Nature</i> , 2001, 409, 403-407.	27.8	677
50	Reduction of Pentylentetrazole-Induced Seizure Activity in Awake Rats by Seizure-Triggered Trigeminal Nerve Stimulation. <i>Journal of Neuroscience</i> , 2000, 20, 8160-8168.	3.6	180
51	IV. There is more to taste than meets the tongue. <i>American Journal of Physiology - Renal Physiology</i> , 2000, 278, G6-G9.	3.4	36
52	Simultaneous Reorganization in Thalamocortical Ensembles Evolves Over Several Hours After Perioral Capsaicin Injections. <i>Journal of Neurophysiology</i> , 1999, 82, 963-977.	1.8	61
53	Behavioral Modulation of Tactile Responses in the Rat Somatosensory System. <i>Journal of Neuroscience</i> , 1999, 19, 7603-7616.	3.6	320
54	Real-time control of a robot arm using simultaneously recorded neurons in the motor cortex. <i>Nature Neuroscience</i> , 1999, 2, 664-670.	14.8	979

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55	Simultaneous encoding of tactile information by three primate cortical areas. Nature Neuroscience, 1998, 1, 621-630.	14.8	187
56	Nonlinear Processing of Tactile Information in the Thalamocortical Loop. Journal of Neurophysiology, 1997, 78, 506-510.	1.8	88
57	Neonatal Whisker Removal Reduces the Discrimination of Tactile Stimuli by Thalamic Ensembles in Adult Rats. Journal of Neurophysiology, 1997, 78, 1691-1706.	1.8	37
58	Induction of immediate spatiotemporal changes in thalamic networks by peripheral block of ascending cutaneous information. Nature, 1993, 361, 533-536.	27.8	220
59	Erratum. Science, 1991, 251, 1162-1162.	12.6	0
60	Ontogeny of Corticocortical Projections of Rat Somatosensory Cortex. Somatosensory & Motor Research, 1991, 8, 193-200.	0.9	24
61	GABAergic Pathway from Zona Incerta to Neocortex: Clarification. Science, 1991, 251, 1162-1162.	12.6	1
62	Brain-machine-brain interfaces as the foundation for the next generation of neuroprostheses. National Science Review, 0, , .	9.5	6