

Mario Chavez

List of Publications by Year in descending order

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Version: 2024-02-01

84
papers

14,122
citations

117453

34
h-index

64668

79
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87
all docs

87
docs citations

87
times ranked

13109
citing authors

#	ARTICLE	IF	CITATIONS
1	Clinico-biological markers for the prognosis of status epilepticus in adults. <i>Journal of Neurology</i> , 2022, 269, 5868-5882.	1.8	9
2	Combined head accelerometry and <scp>EEG</scp> improves the detection of respiratory-related cortical activity during inspiratory loading in healthy participants. <i>Physiological Reports</i> , 2022, 10, .	0.7	1
3	Neuronal excitability and sensory responsiveness in the thalamo-cortical network in a novel rat model of isoelectric brain state. <i>Journal of Physiology</i> , 2021, 599, 609-629.	1.3	3
4	Association of Clinical, Biological, and Brain Magnetic Resonance Imaging Findings With Electroencephalographic Findings for Patients With COVID-19. <i>JAMA Network Open</i> , 2021, 4, e211489.	2.8	38
5	BCI learning induces core-periphery reorganization in M/EEG multiplex brain networks. <i>Journal of Neural Engineering</i> , 2021, 18, 056002.	1.8	6
6	Alpha activity neuromodulation induced by individual alpha-based neurofeedback learning in ecological context: a double-blind randomized study. <i>Scientific Reports</i> , 2021, 11, 18489.	1.6	10
7	Outliers in clinical symptoms as preictal biomarkers. <i>Epilepsy Research</i> , 2021, 177, 106774.	0.8	0
8	Preictal state detection using prodromal symptoms: A machine learning approach. <i>Epilepsia</i> , 2021, 62, e42-e47.	2.6	11
9	Abnormal Activity of Neck Inspiratory Muscles during Sleep as a Prognostic Indicator in Chronic Obstructive Pulmonary Disease. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2020, 201, 414-422.	2.5	15
10	Identifying neuronal correlates of dying and resuscitation in a model of reversible brain anoxia. <i>Progress in Neurobiology</i> , 2020, 185, 101733.	2.8	14
11	Using symbolic networks to analyse dynamical properties of disease outbreaks. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2020, 476, 20190777.	1.0	3
12	Functional disconnection of associative cortical areas predicts performance during BCI training. <i>NeuroImage</i> , 2020, 209, 116500.	2.1	27
13	Experience, circuit dynamics, and forebrain recruitment in larval zebrafish prey capture. <i>ELife</i> , 2020, 9, .	2.8	24
14	Integrating EEG and MEG Signals to Improve Motor Imagery Classification in Brain-Computer Interface. <i>International Journal of Neural Systems</i> , 2019, 29, 1850014.	3.2	57
15	Comparing complex networks: in defence of the simple. <i>New Journal of Physics</i> , 2019, 21, 013033.	1.2	8
16	Detecting dynamic spatial correlation patterns with generalized wavelet coherence and non-stationary surrogate data. <i>Scientific Reports</i> , 2019, 9, 7389.	1.6	34
17	Disrupted core-periphery structure of multimodal brain networks in Alzheimer's disease. <i>Network Neuroscience</i> , 2019, 3, 635-652.	1.4	20
18	Quality Assessment of Single-Channel EEG for Wearable Devices. <i>Sensors</i> , 2019, 19, 601.	2.1	24

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19	Adjusting ventilator settings to relieve dyspnoea modifies brain activity in critically ill patients: an electroencephalogram pilot study. <i>Scientific Reports</i> , 2019, 9, 16572.	1.6	14
20	Surrogate-Based Artifact Removal From Single-Channel EEG. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2018, 26, 540-550.	2.7	77
21	Detection of time reversibility in time series by ordinal patterns analysis. <i>Chaos</i> , 2018, 28, 123111.	1.0	39
22	Multiplex core-periphery organization of the human connectome. <i>Journal of the Royal Society Interface</i> , 2018, 15, 20180514.	1.5	39
23	Functional brain networks reveal the existence of cognitive reserve and the interplay between network topology and dynamics. <i>Scientific Reports</i> , 2018, 8, 10525.	1.6	21
24	Role of inter-hemispheric connections in functional brain networks. <i>Scientific Reports</i> , 2018, 8, 10246.	1.6	14
25	CARE-rCortex: A Matlab toolbox for the analysis of CARDio-RESpiratory-related activity in the Cortex. <i>Journal of Neuroscience Methods</i> , 2018, 308, 309-316.	1.3	10
26	A Robust Method for the Individual Alpha Frequency Detection in EEG. , 2018, , .		2
27	Interhemispheric Connectivity Characterizes Cortical Reorganization in Motor-Related Networks After Cerebellar Lesions. <i>Cerebellum</i> , 2017, 16, 358-375.	1.4	21
28	Multilayer motif analysis of brain networks. <i>Chaos</i> , 2017, 27, 047404.	1.0	141
29	Multi-feature classifiers for burst detection in single EEG channels from preterm infants. <i>Journal of Neural Engineering</i> , 2017, 14, 046015.	1.8	3
30	Cortical neurons and networks are dormant but fully responsive during isoelectric brain state. <i>Brain</i> , 2017, 140, 2381-2398.	3.7	27
31	Loss of brain inter-frequency hubs in Alzheimer's disease. <i>Scientific Reports</i> , 2017, 7, 10879.	1.6	75
32	Riemannian Geometry Applied to Detection of Respiratory States From EEG Signals: The Basis for a Brain-Ventilator Interface. <i>IEEE Transactions on Biomedical Engineering</i> , 2017, 64, 1138-1148.	2.5	28
33	A Topological Criterion for Filtering Information in Complex Brain Networks. <i>PLoS Computational Biology</i> , 2017, 13, e1005305.	1.5	89
34	Electroencephalographic detection of respiratory-related cortical activity in humans: from event-related approaches to continuous connectivity evaluation. <i>Journal of Neurophysiology</i> , 2016, 115, 2214-2223.	0.9	29
35	Integrative properties and transfer function of cortical neurons initiating absence seizures in a rat genetic model. <i>Journal of Physiology</i> , 2016, 594, 6733-6751.	1.3	25
36	Parsimonious Approximation of Streamline Trajectories in White Matter Fiber Bundles. <i>IEEE Transactions on Medical Imaging</i> , 2016, 35, 2609-2619.	5.4	20

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37	Neurophysiological Evidence for a Cortical Contribution to the Wakefulness-Related Drive to Breathe Explaining Hypocapnia-Resistant Ventilation in Humans. <i>Journal of Neuroscience</i> , 2016, 36, 10673-10682.	1.7	35
38	Induction of an Isoelectric Brain State to Investigate the Impact of Endogenous Synaptic Activity on Neuronal Excitability & In Vivo. <i>Journal of Visualized Experiments</i> , 2016, , e53576.	0.2	1
39	Ways of making-sense: Local gamma synchronization reveals differences between semantic processing induced by music and language. <i>Brain and Language</i> , 2016, 152, 44-49.	0.8	5
40	Lucid Dreaming in Narcolepsy. <i>Sleep</i> , 2015, 38, 487-497.	0.6	81
41	An algebraic topological method for multimodal brain networks comparisons. <i>Frontiers in Psychology</i> , 2015, 6, 904.	1.1	32
42	Hierarchy of Neural Organization in the Embryonic Spinal Cord: Granger-Causality Graph Analysis of In Vivo Calcium Imaging Data. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2015, 23, 333-341.	2.7	22
43	Nonparametric resampling of random walks for spectral network clustering. <i>Physical Review E</i> , 2014, 89, 012802.	0.8	14
44	Wavelet analysis in ecology and epidemiology: impact of statistical tests. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20130585.	1.5	84
45	Excitability and responsiveness of rat barrel cortex neurons in the presence and absence of spontaneous synaptic activity <i>in vivo</i> . <i>Journal of Physiology</i> , 2014, 592, 3577-3595.	1.3	27
46	Graph analysis of functional brain networks: practical issues in translational neuroscience. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014, 369, 20130521.	1.8	313
47	Dynamic Granger-causal networks of electricity spot prices: A novel approach to market integration. <i>Energy Economics</i> , 2014, 44, 422-432.	5.6	40
48	Abnormal functional connectivity between motor cortex and pedunculopontine nucleus following chronic dopamine depletion. <i>Journal of Neurophysiology</i> , 2014, 111, 434-440.	0.9	26
49	Functional Cortical Network in Alpha Band Correlates with Social Bargaining. <i>PLoS ONE</i> , 2014, 9, e109829.	1.1	17
50	A Prototype Representation to Approximate White Matter Bundles with Weighted Currents. <i>Lecture Notes in Computer Science</i> , 2014, 17, 289-296.	1.0	4
51	Node Accessibility in Cortical Networks During Motor Tasks. <i>Neuroinformatics</i> , 2013, 11, 355-366.	1.5	7
52	Remote Synchronization Reveals Network Symmetries and Functional Modules. <i>Physical Review Letters</i> , 2013, 110, 174102.	2.9	209
53	Subthalamic Nucleus High-Frequency Stimulation Restores Altered Electrophysiological Properties of Cortical Neurons in Parkinsonian Rat. <i>PLoS ONE</i> , 2013, 8, e83608.	1.1	29
54	Community structure in large-scale cortical networks during motor acts. <i>Chaos, Solitons and Fractals</i> , 2012, 45, 603-610.	2.5	8

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55	Anatomical Connectivity Influences both Intra- and Inter-Brain Synchronizations. PLoS ONE, 2012, 7, e36414.	1.1	90
56	Dynamics of excitable neural networks with heterogeneous connectivity. Progress in Biophysics and Molecular Biology, 2011, 105, 29-33.	1.4	4
57	Functional Modularity of Background Activities in Normal and Epileptic Brain Networks. Physical Review Letters, 2010, 104, 118701.	2.9	215
58	COMPLEX NETWORKS: NEW TRENDS FOR THE ANALYSIS OF BRAIN CONNECTIVITY. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 1677-1686.	0.7	33
59	DYNAMICAL BEHAVIOR AND CONTROL OF COUPLED THRESHOLD ELEMENTS WITH SELF-INHIBITION. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2009, 19, 3119-3128.	0.7	0
60	Inactivation of the Somatosensory Cortex Prevents Paroxysmal Oscillations in Cortical and Related Thalamic Neurons in a Genetic Model of Absence Epilepsy. Cerebral Cortex, 2009, 19, 2078-2091.	1.6	110
61	Chronic but not Acute Dopaminergic Transmission Interruption Promotes a Progressive Increase in Cortical Beta Frequency Synchronization: Relationships to Vigilance State and Akinesia. Cerebral Cortex, 2009, 19, 1616-1630.	1.6	100
62	Complex modular structure of large-scale brain networks. Chaos, 2009, 19, 023119.	1.0	73
63	Wavelet analysis of ecological time series. Oecologia, 2008, 156, 287-304.	0.9	552
64	Dynamic small-world behavior in functional brain networks unveiled by an event-related networks approach. Physical Review E, 2008, 77, 050905.	0.8	115
65	Activity of Ventral Medial Thalamic Neurons during Absence Seizures and Modulation of Cortical Paroxysms by the Nigrothalamic Pathway. Journal of Neuroscience, 2007, 27, 929-941.	1.7	130
66	Time-dependent spectral analysis of epidemiological time-series with wavelets. Journal of the Royal Society Interface, 2007, 4, 625-636.	1.5	257
67	Synchronization processes in complex networks. European Physical Journal: Special Topics, 2007, 146, 129-144.	1.2	13
68	Synchronizing weighted complex networks. Chaos, 2006, 16, 015106.	1.0	55
69	Frequency flows and the time-frequency dynamics of multivariate phase synchronization in brain signals. NeuroImage, 2006, 31, 209-227.	2.1	106
70	Synchronization in dynamical networks: Evolution along commutative graphs. Physical Review E, 2006, 74, 016102.	0.8	91
71	Complex networks: Structure and dynamics. Physics Reports, 2006, 424, 175-308.	10.3	8,661
72	Towards a proper estimation of phase synchronization from time series. Journal of Neuroscience Methods, 2006, 154, 149-160.	1.3	80

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73	Degree mixing and the enhancement of synchronization in complex weighted networks. Physical Review E, 2006, 74, 066107.	0.8	35
74	Synchronization is Enhanced in Weighted Complex Networks. Physical Review Letters, 2005, 94, 218701.	2.9	418
75	Nonstationary Influence of El Niño on the Synchronous Dengue Epidemics in Thailand. PLoS Medicine, 2005, 2, e106.	3.9	239
76	Synchronization in Complex Networks with Age Ordering. Physical Review Letters, 2005, 94, 138701.	2.9	167
77	Preictal state identification by synchronization changes in long-term intracranial EEG recordings. Clinical Neurophysiology, 2005, 116, 559-568.	0.7	190
78	On the intrinsic time scales involved in synchronization: A data-driven approach. Chaos, 2005, 15, 023904.	1.0	24
79	NON-STATIONARY INFLUENCE OF EL NIÑO ON THE SYNCHRONOUS DENGUE EPIDEMICS IN THAILAND. Epidemiology, 2005, 16, S156-S157.	1.2	0
80	On the Activity of the Corticostriatal Networks during Spike-and-Wave Discharges in a Genetic Model of Absence Epilepsy. Journal of Neuroscience, 2004, 24, 6816-6825.	1.7	91
81	Spatio-temporal dynamics prior to neocortical seizures: amplitude versus phase couplings. IEEE Transactions on Biomedical Engineering, 2003, 50, 571-583.	2.5	115
82	Exploring the nonlinear dynamics of the brain. Journal of Physiology (Paris), 2003, 97, 629-639.	2.1	19
83	A simple measure of correlation across time, frequency and space between continuous brain signals. Journal of Neuroscience Methods, 2003, 123, 175-188.	1.3	40
84	Statistical assessment of nonlinear causality: application to epileptic EEG signals. Journal of Neuroscience Methods, 2003, 124, 113-128.	1.3	167