

Jordi Soriano

List of Publications by Year in descending order

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Version: 2024-02-01

61
papers

2,315
citations

236925

25
h-index

223800

46
g-index

64
all docs

64
docs citations

64
times ranked

3061
citing authors

#	ARTICLE	IF	CITATIONS
1	Patient-Specific iPSC-Derived Astrocytes Contribute to Non-Cell-Autonomous Neurodegeneration in Parkinson's Disease. <i>Stem Cell Reports</i> , 2019, 12, 213-229.	4.8	250
2	Model-Free Reconstruction of Excitatory Neuronal Connectivity from Calcium Imaging Signals. <i>PLoS Computational Biology</i> , 2012, 8, e1002653.	3.2	212
3	Development of input connections in neural cultures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 13758-13763.	7.1	163
4	Noise focusing and the emergence of coherent activity in neuronal cultures. <i>Nature Physics</i> , 2013, 9, 582-590.	16.7	161
5	Aberrant epigenome in <scp>iPSC</scp> â€derived dopaminergic neurons from Parkinson's disease patients. <i>EMBO Molecular Medicine</i> , 2015, 7, 1529-1546.	6.9	117
6	The physics of living neural networks. <i>Physics Reports</i> , 2007, 449, 54-76.	25.6	110
7	Percolation in Living Neural Networks. <i>Physical Review Letters</i> , 2006, 97, 188102.	7.8	98
8	Transfer Entropy Reconstruction and Labeling of Neuronal Connections from Simulated Calcium Imaging. <i>PLoS ONE</i> , 2014, 9, e98842.	2.5	75
9	Impact of modular organization on dynamical richness in cortical networks. <i>Science Advances</i> , 2018, 4, eaau4914.	10.3	74
10	Emergence of Assortative Mixing between Clusters of Cultured Neurons. <i>PLoS Computational Biology</i> , 2014, 10, e1003796.	3.2	61
11	An Osmoregulatory Basis for Shape Oscillations in Regenerating Hydra. <i>Biophysical Journal</i> , 2008, 95, 978-985.	0.5	54
12	Identification of neuronal network properties from the spectral analysis of calcium imaging signals in neuronal cultures. <i>Frontiers in Neural Circuits</i> , 2013, 7, 199.	2.8	51
13	Interface roughening in Hele-Shaw flows with quenched disorder: Experimental and theoretical results. <i>Europhysics Letters</i> , 2001, 55, 194-200.	2.0	50
14	Anomalous Roughening of Hele-Shaw Flows with Quenched Disorder. <i>Physical Review Letters</i> , 2002, 89, 026102.	7.8	45
15	Magnetite-Amyloid-Î² deteriorates activity and functional organization in an in vitro model for Alzheimerâ€™s disease. <i>Scientific Reports</i> , 2015, 5, 17261.	3.3	44
16	7,8-dihydroxyflavone ameliorates cognitive and motor deficits in a Huntingtonâ€™s disease mouse model through specific activation of the PLCÎ³1 pathway. <i>Human Molecular Genetics</i> , 2017, 26, 3144-3160.	2.9	44
17	Anomalous Roughening of Viscous Fluid Fronts in Spontaneous Imbibition. <i>Physical Review Letters</i> , 2005, 95, 104501.	7.8	43
18	Interfacial instabilities of a fluid annulus in a rotating Heleâ€™Shaw cell. <i>Physics of Fluids</i> , 2000, 12, 1685-1698.	4.0	42

#	ARTICLE	IF	CITATIONS
19	Mechanogenetic Coupling of Hydra Symmetry Breaking and Driven Turing Instability Model. Biophysical Journal, 2009, 96, 1649-1660.	0.5	41
20	Radial displacement of a fluid annulus in a rotating Hele-Shaw cell. Physics of Fluids, 1999, 11, 778-785.	4.0	39
21	Quorum percolation in living neural networks. Europhysics Letters, 2010, 89, 18008.	2.0	37
22	Experiments of interfacial roughening in Hele-Shaw flows with weak quenched disorder. Physical Review E, 2002, 66, 031603.	2.1	35
23	<i>In Vitro</i> Development of Human iPSC-Derived Functional Neuronal Networks on Laser-Fabricated 3D Scaffolds. ACS Applied Materials & Interfaces, 2021, 13, 7839-7853.	8.0	34
24	Activity and High-Order Effective Connectivity Alterations in Sanfilippo C Patient-Specific Neuronal Networks. Stem Cell Reports, 2015, 5, 546-557.	4.8	31
25	Hydra Molecular Network Reaches Criticality at the Symmetry-Breaking Axis-Defining Moment. Physical Review Letters, 2006, 97, 258102.	7.8	29
26	Grafted human pluripotent stem cell-derived cortical neurons integrate into adult human cortical neural circuitry. Stem Cells Translational Medicine, 2020, 9, 1365-1377.	3.3	29
27	Percolation of spatially constrained Erdős-Rényi networks with degree correlations. Physical Review E, 2014, 89, 012116.	2.1	26
28	Dominance of Metric Correlations in Two-Dimensional Neuronal Cultures Described through a Random Field Ising Model. Physical Review Letters, 2017, 118, 208101.	7.8	25
29	Neuronal Spatial Arrangement Shapes Effective Connectivity Traits of <i>in vitro</i> Cortical Networks. IEEE Transactions on Network Science and Engineering, 2020, 7, 435-448.	6.4	25
30	BDNF and NT-3 increase excitatory input connectivity in rat hippocampal cultures. European Journal of Neuroscience, 2009, 30, 998-1010.	2.6	22
31	CRISPR/Cas9-mediated generation of a tyrosine hydroxylase reporter iPSC line for live imaging and isolation of dopaminergic neurons. Scientific Reports, 2019, 9, 6811.	3.3	22
32	Human Pluripotent Stem Cell-Derived Neurons Are Functionally Mature <i>In Vitro</i> and Integrate into the Mouse Striatum Following Transplantation. Molecular Neurobiology, 2020, 57, 2766-2798.	4.0	22
33	Development of two-photon polymerised scaffolds for optical interrogation and neurite guidance of human iPSC-derived cortical neuronal networks. Lab on A Chip, 2020, 20, 1792-1806.	6.0	20
34	Critical Behavior and Axis Defining Symmetry Breaking in <i>Hydra</i> Embryonic Development. Physical Review Letters, 2012, 108, 158103.	7.8	18
35	Transcriptomic and genetic studies identify NFAT5 as a candidate gene for cocaine dependence. Translational Psychiatry, 2015, 5, e667-e667.	4.8	17
36	Anomalous roughening in experiments of interfaces in Hele-Shaw flows with strong quenched disorder. Physical Review E, 2003, 67, 056308.	2.1	16

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37	Impact of targeted attack on the spontaneous activity in spatial and biologically-inspired neuronal networks. <i>Chaos</i> , 2019, 29, 083126.	2.5	15
38	Spontaneous Functional Recovery after Focal Damage in Neuronal Cultures. <i>ENeuro</i> , 2020, 7, ENEURO.0254-19.2019.	1.9	13
39	BDNF and NT-3 Increase Velocity of Activity Front Propagation in Unidimensional Hippocampal Cultures. <i>Journal of Neurophysiology</i> , 2010, 104, 2932-2939.	1.8	12
40	Impact of Physical Obstacles on the Structural and Effective Connectivity of in silico Neuronal Circuits. <i>Frontiers in Computational Neuroscience</i> , 2020, 14, 77.	2.1	11
41	Deficits in coordinated neuronal activity and network topology are striatal hallmarks in Huntington's disease. <i>BMC Biology</i> , 2020, 18, 58.	3.8	11
42	Parkinson's disease patient-specific neuronal networks carrying the LRRK2 G2019S mutation unveil early functional alterations that predate neurodegeneration. <i>Npj Parkinson's Disease</i> , 2021, 7, 55.	5.3	11
43	Universality of Persistence Exponents in Two-Dimensional Ostwald Ripening. <i>Physical Review Letters</i> , 2009, 103, 226101.	7.8	10
44	Messenger RNA fluctuations and regulatory RNAs shape the dynamics of a negative feedback loop. <i>Physical Review E</i> , 2010, 81, 031924.	2.1	9
45	Involvement of Mechanical Cues in the Migration of Cajal-Retzius Cells in the Marginal Zone During Neocortical Development. <i>Frontiers in Cell and Developmental Biology</i> , 2022, 10, .	3.7	6
46	Noise-driven amplification mechanisms governing the emergence of coherent extreme events in excitable systems. <i>Physical Review Research</i> , 2021, 3, .	3.6	5
47	Functional strengthening through synaptic scaling upon connectivity disruption in neuronal cultures. <i>Network Neuroscience</i> , 2020, 4, 1160-1180.	2.6	5
48	Interplay activity-connectivity: Dynamics in patterned neuronal cultures. , 2013, , .		4
49	Analysis of spontaneous activity in neuronal cultures through recurrence plots: impact of varying connectivity. <i>European Physical Journal: Special Topics</i> , 2018, 227, 999-1014.	2.6	4
50	Analysis of co-isogenic prion protein deficient mice reveals behavioral deficits, learning impairment, and enhanced hippocampal excitability. <i>BMC Biology</i> , 2022, 20, 17.	3.8	4
51	First Connectomics Challenge: From Imaging to Connectivity. <i>The Springer Series on Challenges in Machine Learning</i> , 2017, , 1-22.	10.4	3
52	Dynamical robustness of collective neuronal activity upon targeted damage in interdependent networks. <i>European Physical Journal: Special Topics</i> , 2022, 231, 195-201.	2.6	3
53	Design of the first neuronal connectomics challenge: From imaging to connectivity. , 2014, , .		2
54	Percolation approach to study connectivity in living neural networks. <i>AIP Conference Proceedings</i> , 2007, , .	0.4	1

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55	State-dependent network reconstruction from calcium imaging signals. BMC Neuroscience, 2011, 12, .	1.9	1
56	Network reconstruction from calcium imaging data of spontaneously bursting neuronal activity. BMC Neuroscience, 2013, 14, .	1.9	1
57	From structure to function, via dynamics. , 2013, , .		1
58	Experiments on clustered neuronal networks. , 2013, , .		1
59	The emergence of spontaneous activity in neuronal cultures, coherence from noise. BMC Neuroscience, 2013, 14, .	1.9	0
60	The emergence of spontaneous activity in neuronal cultures. , 2013, , .		0
61	Experiments in clustered neuronal networks: A paradigm for complex modular dynamics. AIP Conference Proceedings, 2016, , .	0.4	0