

Juan G Restrepo

List of Publications by Year in descending order

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58
papers

2,678
citations

249298

26
h-index

214428

50
g-index

60
all docs

60
docs citations

60
times ranked

2443
citing authors

#	ARTICLE	IF	CITATIONS
1	Geometry, Topology and Simplicial Synchronization. Understanding Complex Systems, 2022, , 269-299.	0.3	7
2	Hypergraph assortativity: A dynamical systems perspective. Chaos, 2022, 32, .	1.0	11
3	Higher-order simplicial synchronization of coupled topological signals. Communications Physics, 2021, 4, .	2.0	64
4	The effect of heterogeneity on hypergraph contagion models. Chaos, 2020, 30, 103117.	1.0	84
5	Dodge and survive: Modeling the predatory nature of dodgeball. Physical Review E, 2020, 102, 062302.	0.8	4
6	Dynamic regulation of resource transport induces criticality in interdependent networks of excitable units. Physical Review E, 2020, 101, 022303.	0.8	4
7	Optimal control of excitable systems near criticality. Physical Review Research, 2020, 2, .	1.3	4
8	Ensemble-based estimates of eigenvector error for empirical covariance matrices. Information and Inference, 2019, 8, 289-312.	0.9	0
9	Using machine learning to assess short term causal dependence and infer network links. Chaos, 2019, 29, 121104.	1.0	26
10	Competitive suppression of synchronization and nonmonotonic transitions in oscillator communities with distributed time delay. Physical Review Research, 2019, 1, .	1.3	3
11	Shattered time: can a dissipative time crystal survive many-body correlations?. New Journal of Physics, 2018, 20, 123003.	1.2	61
12	Robust entropy requires strong and balanced excitatory and inhibitory synapses. Chaos, 2018, 28, 103115.	1.0	12
13	Uncovering low dimensional macroscopic chaotic dynamics of large finite size complex systems. Chaos, 2017, 27, 083121.	1.0	2
14	Analysis of Downlink Connectivity Models in a Heterogeneous Cellular Network via Stochastic Geometry. IEEE Transactions on Wireless Communications, 2016, 15, 3895-3907.	6.1	20
15	Feedback control stabilization of critical dynamics via resource transport on multilayer networks: How glia enable learning dynamics in the brain. Physical Review E, 2016, 94, 042310.	0.8	20
16	Frequency assortativity can induce chaos in oscillator networks. Physical Review E, 2015, 91, 060902.	0.8	24
17	Hamiltonian mean field model: Effect of network structure on synchronization dynamics. Physical Review E, 2015, 92, 052802.	0.8	6
18	Downlink analysis for a heterogeneous cellular network. , 2014, , .		1

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19	Spatiotemporal dynamics of calcium-driven cardiac alternans. <i>Physical Review E</i> , 2014, 89, 052707.	0.8	7
20	Inhibition Causes Ceaseless Dynamics in Networks of Excitable Nodes. <i>Physical Review Letters</i> , 2014, 112, 138103.	2.9	67
21	Downlink Performance Analysis for a Generalized Shotgun Cellular System. <i>IEEE Transactions on Wireless Communications</i> , 2014, 13, 6684-6696.	6.1	60
22	Mean-field theory of assortative networks of phase oscillators. <i>Europhysics Letters</i> , 2014, 107, 60006.	0.7	41
23	Coexisting chaotic and multi-periodic dynamics in a model of cardiac alternans. <i>Chaos</i> , 2014, 24, 043126.	1.0	15
24	Onset of synchronization in the disordered Hamiltonian mean-field model. <i>Physical Review E</i> , 2014, 89, 052125.	0.8	6
25	Complex macroscopic behavior in systems of phase oscillators with adaptive coupling. <i>Physica D: Nonlinear Phenomena</i> , 2014, 267, 27-35.	1.3	31
26	Synchronization of Kuramoto oscillators in networks of networks. <i>IEICE Proceeding Series</i> , 2014, 1, 171-174.	0.0	0
27	Dynamics in hybrid complex systems of switches and oscillators. <i>Chaos</i> , 2013, 23, 033142.	1.0	0
28	Effects of degree-frequency correlations on network synchronization: Universality and full phase-locking. <i>Europhysics Letters</i> , 2013, 101, 20001.	0.7	38
29	A network-specific approach to percolation in complex networks with bidirectional links. <i>Europhysics Letters</i> , 2012, 98, 16007.	0.7	4
30	Hierarchical synchrony of phase oscillators in modular networks. <i>Physical Review E</i> , 2012, 85, 016208.	0.8	65
31	Statistical properties of avalanches in networks. <i>Physical Review E</i> , 2012, 85, 066131.	0.8	62
32	Unidirectional Pinning and Hysteresis of Spatially Discordant Alternans in Cardiac Tissue. <i>Physical Review Letters</i> , 2012, 108, 108103.	2.9	10
33	Heterogeneous cellular network performance analysis under open and closed access. , 2012, , .		8
34	Downlink coverage analysis in a heterogeneous cellular network. , 2012, , .		40
35	Stochastic Ordering Based Carrier-to-Interference Ratio Analysis for the Shotgun Cellular Systems. <i>IEEE Wireless Communications Letters</i> , 2012, 1, 565-568.	3.2	13
36	Predicting Criticality and Dynamic Range in Complex Networks: Effects of Topology. <i>Physical Review Letters</i> , 2011, 106, 058101.	2.9	158

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37	Effects of network topology, transmission delays, and refractoriness on the response of coupled excitable systems to a stochastic stimulus. <i>Chaos</i> , 2011, 21, 025117.	1.0	34
38	Multi-Tier Network Performance Analysis Using a Shotgun Cellular System. , 2011, , .		24
39	Network connectivity during mergers and growth: Optimizing the addition of a module. <i>Physical Review E</i> , 2011, 83, 066112.	0.8	11
40	Cluster synchrony in systems of coupled phase oscillators with higher-order coupling. <i>Physical Review E</i> , 2011, 84, 036208.	0.8	70
41	Dynamics and pattern formation in large systems of spatially-coupled oscillators with finite response times. <i>Chaos</i> , 2011, 21, 023122.	1.0	40
42	Modeling of Interference from Cooperative Cognitive Radios for Low Power Primary Users. , 2010, , .		7
43	Spontaneous synchronization of coupled oscillator systems with frequency adaptation. <i>Physical Review E</i> , 2010, 81, 046214.	0.8	39
44	Line-defect patterns of unstable spiral waves in cardiac tissue. <i>Physical Review E</i> , 2009, 79, 030906.	0.8	12
45	Carrier to Interference Ratio Analysis for the Shotgun Cellular System. , 2009, , .		25
46	Spatiotemporal intracellular calcium dynamics during cardiac alternans. <i>Chaos</i> , 2009, 19, 037115.	1.0	57
47	A Rabbit Ventricular Action Potential Model Replicating Cardiac Dynamics at Rapid Heart Rates. <i>Biophysical Journal</i> , 2008, 94, 392-410.	0.2	370
48	Calsequestrin-Mediated Mechanism for Cellular Calcium Transient Alternans. <i>Biophysical Journal</i> , 2008, 95, 3767-3789.	0.2	143
49	Weighted Percolation on Directed Networks. <i>Physical Review Letters</i> , 2008, 100, 058701.	2.9	48
50	Approximating the largest eigenvalue of network adjacency matrices. <i>Physical Review E</i> , 2007, 76, 056119.	0.8	113
51	Emergence of synchronization in complex networks of interacting dynamical systems. <i>Physica D: Nonlinear Phenomena</i> , 2006, 224, 114-122.	1.3	54
52	Characterizing the Dynamical Importance of Network Nodes and Links. <i>Physical Review Letters</i> , 2006, 97, 094102.	2.9	199
53	Emergence of Coherence in Complex Networks of Heterogeneous Dynamical Systems. <i>Physical Review Letters</i> , 2006, 96, 254103.	2.9	40
54	Scale Dependence of Branching in Arterial and Bronchial Trees. <i>Physical Review Letters</i> , 2006, 96, 128101.	2.9	10

#	ARTICLE	IF	CITATIONS
55	Synchronization in large directed networks of coupled phase oscillators. Chaos, 2006, 16, 015107.	1.0	85
56	Onset of synchronization in large networks of coupled oscillators. Physical Review E, 2005, 71, 036151.	0.8	248
57	Spatial patterns of desynchronization bursts in networks. Physical Review E, 2004, 69, 066215.	0.8	41
58	Desynchronization Waves and Localized Instabilities in Oscillator Arrays. Physical Review Letters, 2004, 93, 114101.	2.9	23