

Irene Sendiña-Nadal

List of Publications by Year in descending order

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Version: 2024-02-01

72
papers

4,595
citations

218381

26
h-index

98622

67
g-index

74
all docs

74
docs citations

74
times ranked

3742
citing authors

#	ARTICLE	IF	CITATIONS
1	Topological synchronization of chaotic systems. <i>Scientific Reports</i> , 2022, 12, 2508.	1.6	11
2	Growing scale-free simplices. <i>Communications Physics</i> , 2021, 4, .	2.0	33
3	Neuronal circuits on a chip for biological network monitoring. <i>Biotechnology Journal</i> , 2021, 16, e2000355.	1.8	5
4	Node differentiation dynamics along the route to synchronization in complex networks. <i>Physical Review E</i> , 2021, 104, 014303.	0.8	2
5	Predicting transitions in cooperation levels from network connectivity. <i>New Journal of Physics</i> , 2021, 23, 093040.	1.2	4
6	Evolutionary games on simplicial complexes. <i>Chaos, Solitons and Fractals</i> , 2021, 150, 111103.	2.5	30
7	Dynamical complexity measure to distinguish organized from disorganized dynamics. <i>Physical Review E</i> , 2020, 101, 022204.	0.8	3
8	Diverse strategic identities induce dynamical states in evolutionary games. <i>Physical Review Research</i> , 2020, 2, .	1.3	14
9	Network-based features for retinal fundus vessel structure analysis. <i>PLoS ONE</i> , 2019, 14, e0220132.	1.1	3
10	Statistical complexity and connectivity relationship in cultured neural networks. <i>Chaos, Solitons and Fractals</i> , 2019, 119, 284-290.	2.5	8
11	Synchronization clusters emerge as the result of a global coupling among classical phase oscillators. <i>New Journal of Physics</i> , 2019, 21, 053002.	1.2	9
12	Self-organized Cultured Neuronal Networks: Longitudinal Analysis and Modeling of the Underlying Network Structure. <i>SEMA SIMAI Springer Series</i> , 2019, , 59-85.	0.4	0
13	Observability of Dynamical Networks from Graphic and Symbolic Approaches. <i>Springer Proceedings in Complexity</i> , 2019, , 3-15.	0.2	2
14	High-order couplings in geometric complex networks of neurons. <i>Physical Review E</i> , 2019, 100, 052305.	0.8	16
15	Dynamical complexity as a proxy for the network degree distribution. <i>Physical Review E</i> , 2019, 99, 012310.	0.8	11
16	Topological characterization versus synchronization for assessing (or not) dynamical equivalence. <i>Chaos</i> , 2018, 28, 045107.	1.0	7
17	Adaptive control of dynamical synchronization on evolving networks with noise disturbances. <i>Physical Review E</i> , 2018, 97, 022211.	0.8	11
18	A symbolic network-based nonlinear theory for dynamical systems observability. <i>Scientific Reports</i> , 2018, 8, 3785.	1.6	27

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19	Synchronization of chaotic systems: A microscopic description. <i>Physical Review E</i> , 2018, 98, .	0.8	14
20	Using global modeling to unveil hidden couplings in small network motifs. <i>Chaos</i> , 2018, 28, 123110.	1.0	5
21	Relay synchronization in multiplex networks. <i>Scientific Reports</i> , 2018, 8, 8629.	1.6	56
22	Nonlinear graph-based theory for dynamical network observability. <i>Physical Review E</i> , 2018, 98, 020303.	0.8	24
23	Explosive synchronization in mono and multilayer networks. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2018, 23, 1931-1944.	0.5	3
24	Synchronizability of nonidentical weakly dissipative systems. <i>Chaos</i> , 2017, 27, 103118.	1.0	5
25	Inter-layer synchronization in non-identical multi-layer networks. <i>Scientific Reports</i> , 2017, 7, 45475.	1.6	96
26	Inter-layer synchronization in multiplex networks of identical layers. <i>Chaos</i> , 2016, 26, 065304.	1.0	79
27	Assortativity and leadership emerge from anti-preferential attachment in heterogeneous networks. <i>Scientific Reports</i> , 2016, 6, 21297.	1.6	19
28	Observability coefficients for predicting the class of synchronizability from the algebraic structure of the local oscillators. <i>Physical Review E</i> , 2016, 94, 042205.	0.8	21
29	Explosive transitions in complex networksâ€™ structure and dynamics: Percolation and synchronization. <i>Physics Reports</i> , 2016, 660, 1-94.	10.3	251
30	Effective centrality and explosive synchronization in complex networks. <i>Physical Review E</i> , 2015, 92, 062820.	0.8	16
31	Effects of degree correlations on the explosive synchronization of scale-free networks. <i>Physical Review E</i> , 2015, 91, 032811.	0.8	30
32	Functional Hubs in Mild Cognitive Impairment. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2015, 25, 1550034.	0.7	12
33	Graph-based unsupervised segmentation algorithm for cultured neuronal networks' structure characterization and modeling. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2015, 87, 513-523.	1.1	18
34	Emergence of Small-World Anatomical Networks in Self-Organizing Clustered Neuronal Cultures. <i>PLoS ONE</i> , 2014, 9, e85828.	1.1	36
35	The structure and dynamics of multilayer networks. <i>Physics Reports</i> , 2014, 544, 1-122.	10.3	2,469
36	Explosive transitions to synchronization in networks of phase oscillators. <i>Scientific Reports</i> , 2013, 3, 1281.	1.6	95

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37	Explosive synchronization in weighted complex networks. <i>Physical Review E</i> , 2013, 88, 042808.	0.8	92
38	Targeting the dynamics of complex networks. <i>Scientific Reports</i> , 2012, 2, 396.	1.6	38
39	Explosive First-Order Transition to Synchrony in Networked Chaotic Oscillators. <i>Physical Review Letters</i> , 2012, 108, 168702.	2.9	154
40	NONLOCAL ANALYSIS OF MODULAR ROLES. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2012, 22, 1250167.	0.7	0
41	Topological Measure Locating the Effective Crossover between Segregation and Integration in a Modular Network. <i>Physical Review Letters</i> , 2012, 108, 228701.	2.9	29
42	Integration Versus Segregation in Functional Brain Networks. <i>IEEE Transactions on Biomedical Engineering</i> , 2011, 58, 3004-3007.	2.5	6
43	Unveiling Protein Functions through the Dynamics of the Interaction Network. <i>PLoS ONE</i> , 2011, 6, e17679.	1.1	14
44	Synchronization waves in geometric networks. <i>Physical Review E</i> , 2011, 84, 065101.	0.8	10
45	Computation as an emergent feature of adaptive synchronization. <i>Physical Review E</i> , 2011, 84, 060102.	0.8	6
46	Introduction to Focus Issue: Mesoscales in Complex Networks. <i>Chaos</i> , 2011, 21, 016101.	1.0	24
47	Reorganization of Functional Networks in Mild Cognitive Impairment. <i>PLoS ONE</i> , 2011, 6, e19584.	1.1	121
48	INTERACTING OSCILLATORS IN COMPLEX NETWORKS: SYNCHRONIZATION AND THE EMERGENCE OF SCALE-FREE TOPOLOGIES. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2010, 20, 753-763.	0.7	5
49	ENTRAINMENT COMPETITION IN COMPLEX NETWORKS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2010, 20, 827-833.	0.7	0
50	Dynamics of overlapping structures in modular networks. <i>Physical Review E</i> , 2010, 82, 016115.	0.8	33
51	Regulating synchronous states of complex networks by pinning interaction with an external node. <i>Physical Review E</i> , 2009, 80, 066111.	0.8	4
52	Entraining the topology and the dynamics of a network of phase oscillators. <i>Physical Review E</i> , 2009, 79, 046105.	0.8	6
53	Generation of scale-free topology in complex networks by phase entrainment. <i>International Journal of Systems Science</i> , 2009, 40, 923-930.	3.7	0
54	ENHANCING NETWORK SYNCHRONIZATION BY SPARSE REPULSIVE COUPLINGS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2009, 19, 711-717.	0.7	2

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55	Synchronization Interfaces and Overlapping Communities in Complex Networks. <i>Physical Review Letters</i> , 2008, 101, 168701.	2.9	91
56	Coherence resonance in a chemical excitable system driven by coloured noise. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2008, 366, 381-395.	1.6	28
57	Phase Locking Induces Scale-Free Topologies in Networks of Coupled Oscillators. <i>PLoS ONE</i> , 2008, 3, e2644.	1.1	33
58	Wave Mediated Synchronization of Nonuniform Oscillatory Media. <i>Physical Review Letters</i> , 2007, 98, 074101.	2.9	47
59	Parallel Computation of Large Neuronal Networks with Structured Connectivity. , 2007, , 343-367.		0
60	Kinematic description of wave propagation through a chemical diode. <i>Chaos</i> , 2006, 16, 033110.	1.0	3
61	Sparse repulsive coupling enhances synchronization in complex networks. <i>Physical Review E</i> , 2006, 74, 056112.	0.8	45
62	Noise-induced wave nucleations in an excitable chemical reaction. <i>Physical Review E</i> , 2005, 71, 035204.	0.8	21
63	Unidirectional mechanism for reentrant activity generation in excitable media. <i>Physical Review E</i> , 2002, 66, 016215.	0.8	10
64	NOISE-ENHANCED WAVE TRAIN PROPAGATION IN UNEXCITABLE MEDIA. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2001, 11, 2837-2843.	0.7	2
65	Quasiperiodic patterns in boundary-modulated excitable waves. <i>Physical Review E</i> , 2001, 64, 046208.	0.8	3
66	Regular Wave Propagation Out of Noise in Chemical Active Media. <i>Physical Review Letters</i> , 2001, 87, 078302.	2.9	91
67	Wave Propagation in Subexcitable Media with Periodically Modulated Excitability. <i>Physical Review Letters</i> , 2001, 86, 1646-1649.	2.9	76
68	Brownian Motion of Spiral Waves Driven by Spatiotemporal Structured Noise. <i>Physical Review Letters</i> , 2000, 84, 2734-2737.	2.9	73
69	EFFECTS OF A QUENCHED DISORDER ON WAVE PROPAGATION IN EXCITABLE MEDIA. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 1999, 09, 2353-2361.	0.7	2
70	Wave Propagation in a Medium with Disordered Excitability. <i>Physical Review Letters</i> , 1998, 80, 5437-5440.	2.9	47
71	Percolation thresholds in chemical disordered excitable media. <i>Physical Review E</i> , 1998, 58, R1183-R1186.	0.8	15
72	Wave competition in excitable modulated media. <i>Physical Review E</i> , 1997, 56, 6298-6301.	0.8	18