Javier M Buldu

List of Publications by Year
in descending order

105	2,871	186265	189892
papers	citations	28 h-index	50 g-index

108	108	108	2639
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Network Theory in Neuroscience. , 2022, , 2190-2206.		0
2	Editorial: Nonlinear dynamics and networks in sports. Chaos, Solitons and Fractals, 2021, 142, 110518.	5.1	4
3	Antiphase synchronization in multiplex networks with attractive and repulsive interactions. Physical Review E, 2021, 103, 032310.	2.1	31
4	Entropy of Badminton Strike Positions. Entropy, 2021, 23, 799.	2.2	4
5	Dynamical consistency in networks of nonlinear oscillators. Chaos, Solitons and Fractals, 2021, 148, 111017.	5.1	0
6	Distance Between Players During a Soccer Match: The Influence of Player Position. Frontiers in Psychology, 2021, 12, 723414.	2.1	0
7	Experimental datasets of networks of nonlinear oscillators: Structure and dynamics during the path to synchronization. Data in Brief, 2020, 28, 105012.	1.0	9
8	Pitch networks reveal organizational and spatial patterns of Guardiolaâ€™s F.C. Barcelona. Chaos, Solitons and Fractals, 2020, 138, 109934.	5.1	13
9	Asymmetries in Football: The Passâ€”Goal Paradox. Symmetry, 2020, 12, 1052.	2.2	2
10	Consistency and identifiability of football teams: a network science perspective. Scientific Reports, 2020, 10, 19735.	3.3	9
11	Identifiability of structural networks of nonlinear electronic oscillators. Scientific Reports, 2020, 10, 14668.	3.3	2
12	The resumption of sports competitions after COVID-19 lockdown: The case of the Spanish football league. Chaos, Solitons and Fractals, 2020, 138, 109964.	5.1	23
13	Spatial and Temporal Entropies in the Spanish Football League: A Network Science Perspective. Entropy, 2020, 22, 172.	2.2	19
14	Using network science to unveil badminton performance patterns. Chaos, Solitons and Fractals, 2020, 135, 109834.	5.1	8
15	Ordinal synchronization: Using ordinal patterns to capture interdependencies between time series. Chaos, Solitons and Fractals, 2019, 119, 8-18.	5.1	19
16	Brain synchronizability, a false friend. NeuroImage, 2019, 196, 195-199.	4.2	10
17	Taming out-of-equilibrium dynamics on interconnected networks. Nature Communications, 2019, 10, 5314.	12.8	5
18	Frequency-based brain networks: From a multiplex framework to a full multilayer description. Network Neuroscience, 2018, 2, 418-441.	2.6	56

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19	Can multilayer brain networks be a real step forward?. Physics of Life Reviews, 2018, 24, 153-155.	2.8	9
20	Using Network Science to Analyse Football Passing Networks: Dynamics, Space, Time, and the Multilayer Nature of the Game. Frontiers in Psychology, 2018, 9, 1900.	2.1	48
21	Multiplex networks of musical artists: The effect of heterogeneous inter-layer links. Physica A: Statistical Mechanics and Its Applications, 2018, 510, 671-677.	2.6	4
22	Functional brain networks reveal the existence of cognitive reserve and the interplay between network topology and dynamics. Scientific Reports, 2018, 8, 10525.	3.3	21
23	Biological conservation law as an emerging functionality in dynamical neuronal networks. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11826-11831.	7.1	10
24	Inter-layer synchronization in non-identical multi-layer networks. Scientific Reports, 2017, 7, 45475.	3.3	96
25	Editorial: On the relation of dynamics and structure in brain networks. Chaos, 2017, 27, 047201.	2.5	12
26	Beware of the Small-World Neuroscientist!. Frontiers in Human Neuroscience, 2016, 10, 96.	2.0	53
27	Synchronization of networks of chaotic oscillators: Structural and dynamical datasets. Data in Brief, 2016, 7, 1185-1189.	1.0	15
28	Competition among networks highlights the power of the weak. Nature Communications, 2016, 7, 13273.	12.8	18
29	Multilayer structure formation via homophily and homeostasis. Proceedings of SPIE, 2016, , .	0.8	0
30	Interconnecting Networks: The Role of Connector Links. Understanding Complex Systems, 2016, , 61-77.	0.6	5
31	Experimental implementation of maximally synchronizable networks. Physica A: Statistical Mechanics and Its Applications, 2016, 448, 113-121.	2.6	5
32	Emergence of a multilayer structure in adaptive networks of phase oscillators. Chaos, Solitons and Fractals, 2016, 84, 23-30.	5.1	32
33	Enhancing the stability of the synchronization of multivariable coupled oscillators. Physical Review E, 2015, 92, 032804.	2.1	20
34	Synchronization-based computation through networks of coupled oscillators. Frontiers in Computational Neuroscience, 2015, 9, 97.	2.1	14
35	Evaluating the effect of aging on interference resolution with time-varying complex networks analysis. Frontiers in Human Neuroscience, 2015, 9, 255.	2.0	21
36	The cost of attack in competing networks. Journal of the Royal Society Interface, 2015, 12, 20150770.	3.4	39

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37	Anomalous consistency in Mild Cognitive Impairment: A complex networks approach. Chaos, Solitons and Fractals, 2015, 70, 144-155.	5.1	4
38	Inferring the connectivity of coupled oscillators from time-series statistical similarity analysis. Scientific Reports, 2015, 5, 10829.	3.3	54
39	Functional Hubs in Mild Cognitive Impairment. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2015, 25, 1550034.	1.7	12
40	Synchronization of intermittent behavior in ensembles of multistable dynamical systems. Physical Review E, 2015, 91, 032902.	2.1	27
41	Reconstructing functional brain networks: have we got the basics right?. Frontiers in Human Neuroscience, 2014, 8, 107.	2.0	22
42	Functional brain networks: great expectations, hard times and the big leap forward. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130525.	4.0	65
43	Complex network theory and the brain. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130520.	4.0	111
44	Network Theory in Neuroscience. , 2014, , 1-21.		3
45	Synchronization of Interconnected Networks: The Role of Connector Nodes. Physical Review Letters, 2014, 112, 248701.	7.8	135
46	Successful strategies for competing networks. Nature Physics, 2013, 9, 230-234.	16.7	82
47	Explosive transitions to synchronization in networks of phase oscillators. Scientific Reports, 2013, 3, 1281.	3.3	95
48	Generalized synchronization in relay systems with instantaneous coupling. Physical Review E, 2013, 88, 052908.	2.1	31
49	Explosive First-Order Transition to Synchrony in Networked Chaotic Oscillators. Physical Review Letters, 2012, 108, 168702.	7.8	154
50	MODELING THE EVOLUTION OF ITEM RATING NETWORKS USING TIME-DOMAIN PREFERENTIAL ATTACHMENT. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250180.	1.7	3
51	NONLOCAL ANALYSIS OF MODULAR ROLES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250167.	1.7	0
52	Functional Brain Networks: beyond the small-world paradigm*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 57-62.	0.4	4
53	Topological Measure Locating the Effective Crossover between Segregation and Integration in a Modular Network. Physical Review Letters, 2012, 108, 228701.	7.8	29
54	Principles of recovery from traumatic brain injury: Reorganization of functional networks. NeuroImage, 2011, 55, 1189-1199.	4.2	83

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55	Integration Versus Segregation in Functional Brain Networks. IEEE Transactions on Biomedical Engineering, 2011, 58, 3004-3007.	4.2	6
56	Unveiling Protein Functions through the Dynamics of the Interaction Network. PLoS ONE, 2011, 6, e17679.	2.5	14
57	Topological Structure of the Space of Phenotypes: The Case of RNA Neutral Networks. PLoS ONE, 2011, 6, e26324.	2.5	72
58	Introduction to Focus Issue: Mesoscales in Complex Networks. Chaos, 2011, 21, 016101.	2.5	24
59	Reorganization of Functional Networks in Mild Cognitive Impairment. PLoS ONE, 2011, 6, e19584.	2.5	121
60	Quantifying stochasticity in the dynamics ofÂdelay-coupled semiconductor lasers viaÂforbiddenÂpatterns. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 367-377.	3.4	10
61	NETWORKS OF SPRINGS: A PRACTICAL APPROACH. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 937-942.	1.7	6
62	ENTRAINMENT COMPETITION IN COMPLEX NETWORKS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 827-833.	1.7	0
63	Entraining synthetic genetic oscillators. Chaos, 2009, 19, 033139.	2.5	3
64	Entraining the topology and the dynamics of a network of phase oscillators. Physical Review E, 2009, 79, 046105.	2.1	6
65	Evolutionary dynamics on networks of selectively neutral genotypes: Effects of topology and sequence stability. Physical Review E, 2009, 80, 066112.	2.1	30
66	Noise-Induced Phase Bistability via Stochastic Rocking. Physical Review Letters, 2009, 102, 010601.	7.8	15
67	Generation of scale-free topology in complex networks by phase entrainment. International Journal of Systems Science, 2009, 40, 923-930.	5.5	0
68	PREFERENTIAL ATTACHMENT, AGING AND WEIGHTS IN RECOMMENDATION SYSTEMS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2009, 19, 755-763.	1.7	2
69	Synchronization Interfaces and Overlapping Communities in Complex Networks. Physical Review Letters, 2008, 101, 168701.	7.8	91
70	Experimental demonstration of bidirectional chaotic communication by means of isochronal synchronization. Europhysics Letters, 2008, 81, 40005.	2.0	20
71	Community structures and role detection in music networks. Chaos, 2008, 18, 043105.	2.5	21
72	Disorder and decision cost in spatial networks. Chaos, 2008, 18, 023103.	2.5	10

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73	Phase Locking Induces Scale-Free Topologies in Networks of Coupled Oscillators. PLoS ONE, 2008, 3, e2644.	2.5	33
74	ELECTRONIC DESIGN OF SYNTHETIC GENETIC NETWORKS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 3507-3511.	1.7	6
75	THE SOCIAL NETWORK OF CONTEMPORARY POPULAR MUSICIANS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 2281-2288.	1.7	33
76	Processing distributed inputs in coupled excitable lasers. Physical Review A, 2007, 76, .	2.5	2
77	Multiscale vulnerability of complex networks. Chaos, 2007, 17, 043110.	2.5	62
78	Coincidence detection of inharmonic pulses in a nonlinear crystal. Physical Review E, 2007, 75, 012902.	2.1	0
79	Isochronous synchronization in mutually coupled chaotic circuits. Chaos, 2007, 17, 023128.	2.5	28
80	Synchronization in Semiconductor Laser Rings. Journal of Lightwave Technology, 2007, 25, 1549-1554.	4.6	28
81	The complex network of musical tastes. New Journal of Physics, 2007, 9, 172-172.	2.9	18
82	Zero-Lag Long-Range Synchronization via Dynamical Relaying. Physical Review Letters, 2006, 97, 123902.	7.8	268
83	Episodic synchronization in dynamically driven neurons. Physical Review E, 2006, 74, 061910.	2.1	3
84	Bistable phase control via rocking in a nonlinear electronic oscillator. Chaos, 2006, 16, 043126.	2.5	9
85	Topology of music recommendation networks. Chaos, 2006, 16, 013107.	2.5	60
86	Ghost stochastic resonance with distributed inputs in pulse-coupled electronic neurons. Physical Review E, 2006, 73, 021101.	2.1	28
87	Synchronization of electronic genetic networks. Chaos, 2006, 16, 013127.	2.5	16
88	Synchronization by dynamical relaying in electronic circuit arrays. Chaos, 2006, 16, 043113.	2.5	14
89	Episodic Synchronization via Dynamic Injection. Physical Review Letters, 2006, 96, 024102.	7.8	16
90	Coupling-mediated ghost resonance in mutually injected lasers. Chaos, 2005, 15, 013103.	2.5	16

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91	Demultiplexing chaos from multimode semiconductor lasers. IEEE Journal of Quantum Electronics, 2005, 41, 164-170.	1.9	22
92	Delay-induced resonances in an optical system with feedback. Physical Review E, 2004, 69, 046207.	2.1	26
93	Ghost resonance in coupled lasers. AIP Conference Proceedings, 2004, , .	0.4	0
94	Multimode synchronization and communication using unidirectionally coupled semiconductor lasers. IEEE Journal of Quantum Electronics, 2004, 40, 640-650.	1.9	34
95	External noise in semiconductor lasers. , 2004, , .		1
96	Chaos-synchronization of semiconductor laser systems in an open-loop configuration: the short cavity regime and its potential for secure communication systems. , 2003, , .		1
97	Ghost resonance in a semiconductor laser with optical feedback. Europhysics Letters, 2003, 64, 178-184.	2.0	32
98	Ghost resonance in a semiconductor laser operating in an excitable regime. , 2003, 5111, 118.		0
99	Stochastic entrainment of optical power dropouts. Physical Review E, 2002, 66, 021106.	2.1	21
100	Periodic entrainment of power dropouts in mutually coupled semiconductor lasers. Applied Physics Letters, 2002, 81, 5105-5107.	3.3	24
101	Asymmetric and delayed activation of side modes in multimode semiconductor lasers with optical feedback. Journal of Optics B: Quantum and Semiclassical Optics, 2002, 4, 415-420.	1.4	22
102	Dynamics of modal power distribution in a multimode semiconductor laser with optical feedback. Journal of Optics B: Quantum and Semiclassical Optics, 2002, 4, L1-L3.	1.4	9
103	Dynamics of power distribution in multimode semiconductor lasers with optical feedback. , 2002, 4646, 411.		2
104	Effect of external noise correlation in optical coherence resonance. Physical Review E, 2001, 64, 051109.	2.1	35
105	From single layer to multilayer networks in Mild Cognitive Impairment and Alzheimerâ€™s Disease. Journal of Physics Complexity, 0, , .	2.2	1