Wen-Xu Wang

List of Publications by Year
in descending order

61	3,811	136950 32	128289 60
papers	citations	h-index	g-index

62	62	62	2576
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Exact controllability of complex networks. Nature Communications, 2013, 4, 2447.	12.8	430
2	Predicting Catastrophes in Nonlinear Dynamical Systems by Compressive Sensing. Physical Review Letters, 2011, 106, 154101.	7.8	269
3	Data based identification and prediction of nonlinear and complex dynamical systems. Physics Reports, 2016, 644, 1-76.	25.6	268
4	Optimizing controllability of complex networks by minimum structural perturbations. Physical Review E, 2012, 85, 026115.	2.1	202
5	Universal model of individual and population mobility on diverse spatial scales. Nature Communications, 2017, 8, 1639.	12.8	165
6	Reconstructing propagation networks with natural diversity and identifying hidden sources. Nature Communications, 2014, 5, 4323.	12.8	163
7	Noise Bridges Dynamical Correlation and Topology in Coupled Oscillator Networks. Physical Review Letters, 2010, 104, 058701.	7.8	159
8	Simple spatial scaling rules behind complex cities. Nature Communications, 2017, 8, 1841.	12.8	137
9	Universal predictability of mobility patterns in cities. Journal of the Royal Society Interface, 2014, 11, 20140834.	3.4	136
10	Robust Reconstruction of Complex Networks from Sparse Data. Physical Review Letters, 2015, 114, 028701.	7.8	131
11	Particle Swarm Optimization with Scale-Free Interactions. PLoS ONE, 2014, 9, e97822.	2.5	124
12	A geometrical approach to control and controllability of nonlinear dynamical networks. Nature Communications, 2016, 7, 11323.	12.8	106
13	Network Reconstruction Based on Evolutionary-Game Data via Compressive Sensing. Physical Review X, 2011, 1, .	8.9	97
14	Time-seriesâ€“based prediction of complex oscillator networks via compressive sensing. Europhysics Letters, 2011, 94, 48006.	2.0	90
15	Locating the source of diffusion in complex networks by time-reversal backward spreading. Physical Review E, 2016, 93, 032301.	2.1	81
16	Detecting hidden nodes in complex networks from time series. Physical Review E, 2012, 85, 065201.	2.1	69
17	Pattern formation, synchronization, and outbreak of biodiversity in cyclically competing games. Physical Review E, 2011, 83, 011917.	2.1	63
18	Exact controllability of multiplex networks. New Journal of Physics, 2014, 16, 103036.	2.9	63

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19	Hippocampal theta phases organize the reactivation of large-scale electrophysiological representations during goal-directed navigation. Science Advances, 2019, 5, eaav8192.	10.3	56
20	Physical controllability of complex networks. Scientific Reports, 2017, 7, 40198.	3.3	52
21	Cascade of elimination and emergence of pure cooperation in coevolutionary games on networks. Physical Review E, 2010, 81, 035102.	2.1	51
22	Effect of epidemic spreading on species coexistence in spatial rock-paper-scissors games. Physical Review E, 2010, 81, 046113.	2.1	50
23	Cascading failures and the emergence of cooperation in evolutionary-game based models of social and economical networks. Chaos, 2011, 21, 033112.	2.5	49
24	Predictability of Road Traffic and Congestion in Urban Areas. PLoS ONE, 2015, 10, e0121825.	2.5	47
25	Energy scaling and reduction in controlling complex networks. Royal Society Open Science, 2016, 3, 160064.	2.4	45
26	Traffic dynamics in scale-free networks with limited buffers and decongestion strategy. New Journal of Physics, 2008, 10, 023025.	2.9	43
27	Intrinsic dynamics induce global symmetry in network controllability. Scientific Reports, 2015, 5, 8422.	3.3	42
28	Hexadirectional Modulation of Theta Power in Human Entorhinal Cortex during Spatial Navigation. Current Biology, 2018, 28, 3310-3315.e4.	3.9	42
29	Abnormal cascading on complex networks. Physical Review E, 2009, 80, 036109.	2.1	41
30	Emergence of communities and diversity in social networks. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2887-2891.	7.1	40
31	Scaling of noisy fluctuations in complex networks and applications to network prediction. Physical Review E, 2009, 80, 016116.	2.1	39
32	Abrupt transition to complete congestion on complex networks and control. Chaos, 2009, 19, 033106.	2.5	39
33	Multi-source localization on complex networks with limited observers. Europhysics Letters, 2016, 113, 18006.	2.0	30
34	Universal data-based method for reconstructing complex networks with binary-state dynamics. Physical Review E, 2017, 95, 032303.	2.1	28
35	Universal framework for edge controllability of complex networks. Scientific Reports, 2017, 7, 4224.	3.3	28
36	Optimal localization of diffusion sources in complex networks. Royal Society Open Science, 2017, 4, 170091.	2.4	28

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37	Data-based reconstruction of complex geospatial networks, nodal positioning and detection of hidden nodes. Royal Society Open Science, 2016, 3, 150577.	2.4	27
38	Onset of synchronization in weighted scale-free networks. Chaos, 2009, 19, 013134.	2.5	24
39	Controllability of fractal networks: An analytical approach. Europhysics Letters, 2014, 105, 58001.	2.0	22
40	Unified underpinning of human mobility in the real world and cyberspace. New Journal of Physics, 2016, 18, 053025.	2.9	22
41	Locating multiple diffusion sources in time varying networks from sparse observations. Scientific Reports, 2018, 8, 2685.	3.3	22
42	Efficient Reconstruction of Heterogeneous Networks from Time Series via Compressed Sensing. PLoS ONE, 2015, 10, e0142837.	2.5	20
43	Multiplex congruence network of natural numbers. Scientific Reports, 2016, 6, 23714.	3.3	18
44	Spreading to localized targets in complex networks. Scientific Reports, 2016, 6, 38865.	3.3	17
45	Reconstructing direct and indirect interactions in networked public goods game. Scientific Reports, 2016, 6, 30241.	3.3	16
46	Reverse engineering of complex dynamical networks in the presence of time-delayed interactions based on noisy time series. Chaos, 2012, 22, 033131.	2.5	15
47	Scaling behaviours in the growth of networked systems and their geometric origins. Scientific Reports, 2015, 5, 9767.	3.3	13
48	Robustness of controlling edge dynamics in complex networks against node failure. Physical Review E, 2016, 94, 052310.	2.1	13
49	Rebels Lead to the Doctrine of the Mean: A Heterogeneous DeGroot Model. Journal of Systems Science and Complexity, 2018, 31, 1498-1509.	2.8	11
50	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
51	Controllability limit of edge dynamics in complex networks. Physical Review E, 2019, 100, 022318.	2.1	10
52	Control efficacy of complex networks. Scientific Reports, 2016, 6, 28037.	3.3	9
53	Exponential decay of spatial correlation in driven diffusive system: A universal feature of macroscopic homogeneous state. Scientific Reports, 2016, 6, 19652.	3.3	8
54	Controllability of flow-conservation networks. Physical Review E, 2017, 96, 012314.	2.1	8

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55	Effect of clustering coefficient on cooperation in scale-free public goods game. , 2010, , .		7
56	Limited memory optimizes cooperation in social dilemma experiments. Royal Society Open Science, 2021, 8, 210653.	2.4	4
57	Complex system reconstruction. Wuli Xuebao/Acta Physica Sinica, 2020, 69, 088906.	0.5	4
58	Uncovering transportation networks from traffic flux by compressed sensing. European Physical Journal B, 2015, 88, 1.	1.5	3
59	Equal status in Ultimatum Games promotes rational sharing. Scientific Reports, 2018, 8, 1222.	3.3	2
60	ROLE OF DISTANCE-BASED ROUTING IN TRAFFIC DYNAMICS ON MOBILE NETWORKS. International Journal of Modern Physics C, 2013, 24, 1350036.	1.7	1
61	Optimizing optimization: accurate detection of hidden interactions in active body systems from noisy data. Nonlinear Dynamics, 2019, 96, 13-21.	5.2	1