Francesco Sorrentino

List of Publications by Year
in descending order

68	2,413	331670 21	206112 48
papers	citations	h-index	g-index

69	69	69	1910
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Selecting energy efficient inputs using graph structure. International Journal of Control, 2023, 96, 987-999.	1.9	5
2	Controlling consensus in networks with symmetries. International Journal of Control, 2022, 95, 2943-2959.	1.9	0
3	Failure of the simultaneous block diagonalization technique applied to complete and cluster synchronization of random networks. Physical Review E, 2022, 105, 014313.	2.1	2
4	Looking beyond community structure leads to the discovery of dynamical communities in weighted networks. Scientific Reports, 2022, 12, 4524.	3.3	2
5	Matryoshka and disjoint cluster synchronization of networks. Chaos, 2022, 32, 041101.	2.5	8
6	Mitigating Cascading Failures in Power Grids via Markov Decision-Based Load-Shedding With DC Power Flow Model. IEEE Systems Journal, 2022, 16, 4048-4059.	4.6	2
7	Supermodal Decomposition of the Linear Swing Equation for Multilayer Networks. IEEE Access, 2022, 10, 72658-72670.	4.2	3
8	Symmetry-driven network reconstruction through pseudobalanced coloring optimization. Journal of Statistical Mechanics: Theory and Experiment, 2022, 2022, 073403.	2.3	2
9	Controlling network ensembles. Nature Communications, 2021, 12, 1884.	12.8	4
10	Data-driven optimized control of the COVID-19 epidemics. Scientific Reports, 2021, 11, 6525.	3.3	7
11	Modal Decomposition of the Linear Swing Equation in Networks With Symmetries. IEEE Transactions on Network Science and Engineering, 2021, 8, 2482-2494.	6.4	6
12	One-way dependent clusters and stability of cluster synchronization in directed networks. Nature Communications, 2021, 12, 4073.	12.8	13
13	Controlling Symmetries and Clustered Dynamics of Complex Networks. IEEE Transactions on Network Science and Engineering, 2021, 8, 282-293.	6.4	13
14	Cluster synchronization of networks via a canonical transformation for simultaneous block diagonalization of matrices. Chaos, 2021, 31, 111102.	2.5	11
15	Group synchrony, parameter mismatches, and intragroup connections. Physical Review E, 2021, 104, 054314.	2.1	4
16	Reservoir computing with random and optimized time-shifts. Chaos, 2021, 31, 121103.	2.5	6
17	Control Distance and Energy Scaling of Complex Networks. IEEE Transactions on Network Science and Engineering, 2020, 7, 726-736.	6.4	11
18	Experimental observations of synchronization between two bidirectionally coupled physically dissimilar oscillators. Physical Review E, 2020, 102, 042215.	2.1	1

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19	Analyzing synchronized clusters in neuron networks. Scientific Reports, 2020, 10, 16336.	3.3	17
20	An Algorithm for Finding Equitable Clusters in Multi-Layer Networks. , 2020, , .		3
21	Symmetries and cluster synchronization in multilayer networks. Nature Communications, 2020, 11, 3179.	12.8	60
22	The controllability Gramian of lattice graphs. Automatica, 2020, 114, 108833.	5.0	4
23	Group Consensus in Multilayer Networks. IEEE Transactions on Network Science and Engineering, 2020, 7, 2016-2026.	6.4	13
24	Delays induced cluster synchronization in chaotic networks. Chaos, 2020, 30, 121105.	2.5	1
25	Generating Graphs with Symmetry. IEEE Transactions on Network Science and Engineering, 2019, 6, 836-843.	6.4	6
26	Symmetry induced group consensus. Chaos, 2019, 29, 073101.	2.5	18
27	On Node Controllability and Observability in Complex Dynamical Networks. , 2019, 3, 847-852.		14
28	Stability analysis of reservoir computers dynamics via Lyapunov functions. Chaos, 2019, 29, 103147.	2.5	7
29	Symmetries in the time-averaged dynamics of networks: Reducing unnecessary complexity through minimal network models. Chaos, 2019, 29, 011101.	2.5	12
30	Optimal regulation of blood glucose level in Type I diabetes using insulin and glucagon. PLoS ONE, 2019, 14, e0213665.	2.5	11
31	Prediction of Optimal Drug Schedules for Controlling Autophagy. Scientific Reports, 2019, 9, 1428.	3.3	17
32	Cluster Synchronization in Multilayer Networks: A Fully Analog Experiment with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>L</mml:mi><mml:mi>C</mml:mi></mml:math> Oscillators with Physically Dissimilar Coupling. Physical Review Letters, 2019, 122, 014101.	7.8	28
33	Symmetry- and input-cluster synchronization in networks. Physical Review E, 2018, 97, 042217.	2.1	59
34	A Data-Driven Model for Simulating the Evolution of Transmission Line Failure in Power Grids. , 2018, , .		2
35	Control Energy of Lattice Graphs. , 2018, , .		3
36	Energy Scaling with Control Distance in Complex Networks. , 2018, , .		5

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37	Generating symmetric graphs. Chaos, 2018, 28, 121102.	2.5	5
38	Targeted synchronization in an externally driven population of mechanical oscillators. Chaos, 2018, 28, 111102.	2.5	5
39	Optimal control of networks in the presence of attackers and defenders. Chaos, 2018, 28, 051103.	2.5	4
40	Energy scaling of targeted optimal control of complex networks. Nature Communications, 2017, 8, 15145.	12.8	63
41	Optimal control of complex networks: Balancing accuracy and energy of the control action. Chaos, 2017, 27, 041103.	2.5	12
42	Locally Optimal Control of Complex Networks. Physical Review Letters, 2017, 119, 268301.	7.8	32
43	Approximate cluster synchronization in networks with symmetries and parameter mismatches. Chaos, 2016, 26, 094823.	2.5	40
44	Symmetry effects on naturally arising chimera states in mechanical oscillator networks. Chaos, 2016, 26, 116307.	2.5	20
45	Complete characterization of the stability of cluster synchronization in complex dynamical networks. Science Advances, 2016, 2, e1501737.	10.3	174
46	Structural permeability of complex networks to control signals. Nature Communications, 2015, 6, 8349.	12.8	57
47	Inhibition Causes Ceaseless Dynamics in Networks of Excitable Nodes. Physical Review Letters, 2014, 112, 138103.	7.8	67
48	Stable formation of groups of robots via synchronization. , 2014, , .		2
49	Cluster synchronization and isolated desynchronization in complex networks with symmetries. Nature Communications, 2014, 5, 4079.	12.8	418
50	Group Synchrony in an Experimental System of Delay-coupled Optoelectronic Oscillators. IEICE Proceeding Series, 2014, 1, 70-73.	0.0	3
51	Synchronization patterns of an experimental ring of coupled optoelectronic oscillators. IEICE Proceeding Series, 2014, 2, 404-404.	0.0	0
52	Synchronization states and multistability in a ring of periodic oscillators: Experimentally variable coupling delays. Chaos, 2013, 23, 043117.	2.5	43
53	Experimental Observations of Group Synchrony in a System of Chaotic Optoelectronic Oscillators. Physical Review Letters, 2013, 110, 064104.	7.8	91
54	Decentralized estimation of topology changes in wireless robotic networks. , 2013, , .		3

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55	Estimating the structure of small dynamical networks from the state time evolution of one node. Physical Review E, 2013, 87, 012915.	2.1	4
56	Synchronization of hypernetworks of coupled dynamical systems. New Journal of Physics, 2012, 14, 033035.	2.9	109
57	Synchronization of dynamical hypernetworks: Dimensionality reduction through simultaneous block-diagonalization of matrices. Physical Review E, 2012, 86, 056102.	2.1	70
58	Estimation of communication-delays through adaptive synchronization of chaos. Chaos, Solitons and Fractals, 2012, 45, 35-46.	5.1	20
59	Dynamic synchronization of a time-evolving optical network of chaotic oscillators. Chaos, 2010, 20, 043142.	2.5	9
60	Identification of delays and discontinuity points of unknown systems by using synchronization of chaos. Physical Review E, 2010, 81, 066218.	2.1	11
61	The stability of adaptive synchronization of chaotic systems. Chaos, 2010, 20, 013103.	2.5	28
62	Using synchronism of chaos for adaptive learning of time-evolving network topology. Physical Review E, 2009, 79, 016201.	2.1	17
63	Using synchronization of chaos to identify the dynamics of unknown systems. Chaos, 2009, 19, 033108.	2.5	26
64	Adaptive synchronization of coupled chaotic oscillators. Physical Review E, 2009, 80, 056205.	2.1	29
65	Adaptive Synchronization of Dynamics on Evolving Complex Networks. Physical Review Letters, 2008, 100, 114101.	7.8	134
66	SYNCHRONIZABILITY AND SYNCHRONIZATION DYNAMICS OF WEIGHED AND UNWEIGHED SCALE FREE NETWORKS WITH DEGREE MIXING. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 2419-2434.	1.7	36
67	Network synchronization of groups. Physical Review E, 2007, 76, 056114.	2.1	119
68	Controllability of complex networks via pinning. Physical Review E, 2007, 75, 046103.	2.1	382