Explosive phenomena in complex networks

Advances in Physics

68, 123-223

DOI: 10.1080/00018732.2019.1650450

Citation Report

#	Article	IF	Citations
1	Dynamical correlations and pairwise theory for the symbiotic contact process on networks. Physical Review E, 2019, 100, 052302.	2.1	4
2	Percolation on branching simplicial and cell complexes and its relation to interdependent percolation. Physical Review E, 2019, 100, 062311.	2.1	20
3	Limits on Anti-Phase Synchronization in Oscillator Networks. Scientific Reports, 2020, 10, 10178.	3.3	12
4	Heterogeneity in outcomes of repeated instances of percolation experiments. Physical Review E, 2020, 102, 032302.	2.1	3
5	Coherent Dynamics Enhanced by Uncorrelated Noise. Physical Review Letters, 2020, 125, 094101.	7.8	10
6	Higher order interactions in complex networks of phase oscillators promote abrupt synchronization switching. Communications Physics, 2020, 3, .	5.3	131
7	Discontinuous phase transition in the Kuramoto model with asymmetric dynamic interaction. Physical Review E, 2020, 102, 052207.	2.1	4
8	Explosive Higher-Order Kuramoto Dynamics on Simplicial Complexes. Physical Review Letters, 2020, 124, 218301.	7.8	146
9	Networks beyond pairwise interactions: Structure and dynamics. Physics Reports, 2020, 874, 1-92.	25.6	661
10	Fear induced explosive transitions in the dynamics of corruption. Chaos, 2020, 30, 063107.	2.5	8
11	Explosive phase transition in susceptible-infected-susceptible epidemics with arbitrary small but nonzero self-infection rate. Physical Review E, 2020, 101, 032303.	2.1	4
12	Analyzing the potential impact of BREXIT on the European research collaboration network. Chaos, 2020, 30, 063145.	2.5	4
13	Tuning the tricritical points of percolation transitions in random networks. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 073202.	2.3	0
14	Universal gap scaling in percolation. Nature Physics, 2020, 16, 455-461.	16.7	25
15	Scaling of percolation transitions on ErdÃ¶s-RÃ©nyi networks under centrality-based attacks. Physical Review E, 2020, 101, 012306.	2.1	13
16	Effect of overlap on spreading dynamics on multiplex networks. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 043402.	2.3	8
17	Statistical physics approaches to the complex Earth system. Physics Reports, 2021, 896, 1-84.	25.6	79
18	Explosive and semi-explosive death in coupled oscillators. Chaos, Solitons and Fractals, 2021, 142, 110514.	5.1	10

#	Article	IF	Citations
19	The Why, How, and When of Representations for Complex Systems. SIAM Review, 2021, 63, 435-485.	9.5	111
20	Stochastic Synchronization of Nonlinear Networks With Directed Graphs and Degenerate Noise. IEEE Transactions on Control of Network Systems, 2022, 9, 427-437.	3.7	2
21	Explosive Percolation Processes. , 2021, , 405-418.		0
22	Identifying vital nodes by Achlioptas process. New Journal of Physics, 2021, 23, 033036.	2.9	9
23	Transition to synchronization in heterogeneous inhibitory neural networks with structured synapses. Chaos, 2021, 31, 033151.	2.5	6
24	Explosive synchronization in interlayer phase-shifted Kuramoto oscillators on multiplex networks. Chaos, 2021, 31, 041103.	2.5	16
25	Phase transitions and assortativity in models of gene regulatory networks evolved under different selection processes. Journal of the Royal Society Interface, 2021, 18, 20200790.	3.4	1
26	A universal route to explosive phenomena. Science Advances, 2021, 7, .	10.3	56
27	Percolation-intercropping strategies to prevent dissemination of phytopathogens on plantations. Chaos, 2021, 31, 063105.	2.5	1
28	Assortativity-induced explosive synchronization in a complex neuronal network. Physical Review E, 2021, 103, 062307.	2.1	5
29	Higher-order simplicial synchronization of coupled topological signals. Communications Physics, 2021, 4, .	5.3	64
30	Synchronization of coupled Kuramoto oscillators under resource constraints. Physical Review E, 2021, 104, 014211.	2.1	5
31	Explosive death induced by environmental coupling. Communications in Nonlinear Science and Numerical Simulation, 2021, 98, 105774.	3.3	4
33	Higher-order percolation processes on multiplex hypergraphs. Physical Review E, 2021, 104, 034306.	2.1	48
34	Hysteresis and synchronization processes of Kuramoto oscillators on high-dimensional simplicial complexes with competing simplex-encoded couplings. Physical Review E, 2021, 104, 034206.	2.1	16
35	Collective dynamics of heterogeneously and nonlinearly coupled phase oscillators. Physical Review Research, 2021, 3, .	3.6	25
36	Quenching, aging, and reviving in coupled dynamical networks. Physics Reports, 2021, 931, 1-72.	25.6	62
37	Optimal cost tuning of frustration: Achieving desired states in the Kuramoto-Sakaguchi model. Physical Review E, 2021, 103, 012216.	2.1	0

#	Article	IF	Citations
38	Nonlinearity + Networks: A 2020 Vision. Advances in Dynamics, Patterns, Cognition, 2020, , 131-159.	0.3	21
39	Abrupt transition due to non-local cascade propagation in multiplex systems. New Journal of Physics, 2020, 22, 093035.	2.9	15
40	Double explosive transitions to synchronization and cooperation in intertwined dynamics and evolutionary games. New Journal of Physics, 2020, 22, 123026.	2.9	15
41	Abrupt phase transition of epidemic spreading in simplicial complexes. Physical Review Research, 2020, 2, .	3.6	90
42	Interlayer adaptation-induced explosive synchronization in multiplex networks. Physical Review Research, 2020, 2, .	3.6	26
43	Critical mass effect in evolutionary games triggered by zealots. Physical Review Research, 2020, 2, .	3.6	18
44	Sachdev-Ye-Kitaev superconductivity: Quantum Kuramoto and generalized Richardson models. Physical Review Research, 2020, 2, .	3.6	21
45	Optimal percolation in correlated multilayer networks with overlap. Physical Review Research, 2020, 2, .	3.6	9
46	Threefold way to the dimension reduction of dynamics on networks: An application to synchronization. Physical Review Research, 2020, 2, .	3.6	14
47	Spatiotemporal Evolution of a Landslide: A Transition to Explosive Percolation. Entropy, 2020, 22, 67.	2.2	9
48	The physics of higher-order interactions in complex systems. Nature Physics, 2021, 17, 1093-1098.	16.7	287
49	Explosive synchronization caused by optimizing synchrony of coupled phase oscillators on complex networks. European Physical Journal B, 2021, 94, 1.	1.5	3
50	Explosive Percolation Processes. , 2018, , 1-15.		0
51	Explosive dismantling of two-dimensional random lattices under betweenness centrality attacks. Chaos, Solitons and Fractals, 2021, 153, 111529.	5.1	1
52	Service Ecosystem: A Lens of Smart Digital Society. , 2021, , .		1
53	Explosive synchronization: From synthetic to real-world networks. Chinese Physics B, 2022, 31, 020504.	1.4	4
54	Percolation in networks with local homeostatic plasticity. Nature Communications, 2022, 13, 122.	12.8	3
55	Correlation lags give early warning signals of approaching bifurcations. Chaos, Solitons and Fractals, 2022, 155, 111720.	5.1	3

#	Article	IF	Citations
56	The synchronized dynamics of time-varying networks. Physics Reports, 2022, 949, 1-63.	25.6	91
58	One for all. Nature Physics, 2022, 18, 238-239.	16.7	1
59	K-selective percolation: A simple model leading to a rich repertoire of phase transitions. Chaos, 2022, 32, 023115.	2.5	2
60	Higher-order synchronization on the sphere. Journal of Physics Complexity, 2022, 3, 015003.	2.2	2
61	Explosive Transition in Coupled Oscillators Through Mixed Attractive-Repulsive Interactions. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2022, 32, .	1.7	6
62	Characteristic functional cores revealed by hyperbolic disc embedding and k-core percolation on resting-state fMRI. Scientific Reports, 2022, 12, 4887.	3.3	1
63	Percolation analysis of the atmospheric structure. Physical Review E, 2021, 104, 064139.	2.1	1
64	Synchronization on star-like graphs and emerging $mathbb{Z}_{p}$ symmetries at strong coupling. Journal of Complex Networks, 2022, 10, .	1.8	3
65	Explosive synchronization induced by environmental coupling. Physics Letters, Section A: General, Atomic and Solid State Physics, 2022, 441, 128147.	2.1	4
66	Sandpile cascades on oscillator networks: The BTW model meets Kuramoto. Chaos, 2022, 32, .	2.5	7
67	From the origin of life to pandemics: emergent phenomena in complex systems. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, .	3.4	15
68	Partial locking in phase-oscillator populations with heterogenous coupling. Chaos, 2022, 32, 063106.	2.5	5
70	A complex network framework for studying particle-laden flows. Physics of Fluids, 2022, 34, .	4.0	3
71	Forecasting the evolution of fast-changing transportation networks using machine learning. Nature Communications, 2022, 13, .	12.8	8
72	No-exclaves percolation. Journal of the Korean Physical Society, 0, , .	0.7	1
73	Generic criterion for explosive synchronization in heterogeneous phase oscillator populations. Physical Review Research, 2022, 4, .	3.6	9
74	Synchronization dynamics of phase oscillator populations with generalized heterogeneous coupling. Chaos, Solitons and Fractals, 2022, 164, 112680.	5.1	5
75	Impact of basic network motifs on the collective response to perturbations. Nature Communications, 2022, 13, .	12.8	20

#	Article	IF	Citations
76	Synergistic epidemic spreading in correlated networks. Physical Review E, 2022, 106, .	2.1	3
77	Explosive transitions in epidemic dynamics. Journal of Physics Complexity, 2022, 3, 04LT02.	2.2	3
78	Emergence of explosive synchronization bombs in networks of oscillators. Communications Physics, 2022, 5, .	5.3	5
79	Dirac synchronization is rhythmic and explosive. Communications Physics, 2022, 5, .	5.3	10
80	Route to synchronization in coupled phase oscillators with frequency-dependent coupling: Explosive or continuous?. Physical Review E, 2022, 106, .	2.1	2
81	Epidemic spreading under mutually independent intra- and inter-host pathogen evolution. Nature Communications, 2022, 13, .	12.8	12
82	Size-independent scaling analysis for explosive percolation. Physical Review E, 2022, 106, .	2.1	1
83	Fractal Fluctuations at Mixed-Order Transitions in Interdependent Networks. Physical Review Letters, 2022, 129, .	7.8	4
84	Superconductor-Insulator Transition in a Non-Fermi Liquid. Physical Review Letters, 2022, 129, .	7.8	4
85	Comment on â€œLow-dimensional behavior of generalized Kuramoto modelâ€•by S. Ameli and K. A. Samani. Nonlinear Dynamics, 0, , .	5.2	0
86	Detecting early-warning signals for social emergencies by temporal network sociomarkers. Information Sciences, 2023, 627, 189-204.	6.9	1
87	Synchronization on star graph with noise. Chaos, Solitons and Fractals, 2023, 167, 113056.	5.1	2
88	Enhanced explosive synchronization in heterogeneous oscillator populations with higher-order interactions. Chaos, Solitons and Fractals, 2023, 170, 113343.	5.1	5
89	Explosive synchronization in phase oscillator populations with attractive and repulsive adaptive interactions. Chaos, Solitons and Fractals, 2023, 170, 113351.	5.1	3
90	Synchronization dynamics of phase oscillators with generic adaptive coupling. Communications in Theoretical Physics, 2023, 75, 045601.	2.5	1
91	Heterogeneous Nucleation in Finite-Size Adaptive Dynamical Networks. Physical Review Letters, 2023, 130, .	7.8	14
92	Relaxation dynamics of phase oscillators with generic heterogeneous coupling. Physical Review E, 2023, 107, .	2.1	0
93	Explosive synchronization dependence on initial conditions: The minimal Kuramoto model. Chaos, Solitons and Fractals, 2023, 169, 113243.	5.1	14

#	Article	IF	Citations
94	Percolation critical exponents in cluster kinetics of pulse-coupled oscillators. Chaos, 2023, 33, 033102.	2.5	0
95	The dynamic nature of percolation on networks with triadic interactions. Nature Communications, 2023, 14, .	12.8	13
96	Local Dirac Synchronization on networks. Chaos, 2023, 33, .	2.5	6
97	Controlling complex networks with complex nodes. Nature Reviews Physics, 2023, 5, 250-262.	26.6	12
98	Multistability, intermittency, and hybrid transitions in social contagion models on hypergraphs. Nature Communications, 2023, 14, .	12.8	13
99	Impact of random and targeted disruptions on information diffusion during outbreaks. Chaos, 2023, 33, 033145.	2.5	1
100	Explosive rigidity percolation in kirigami. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2023, 479, .	2.1	0
101	Supercritical fluids behave as complex networks. Nature Communications, 2023, 14, .	12.8	4
102	Targeted Community Merging provides an efficient comparison between collaboration clusters and departmental partitions. Journal of Complex Networks, 2023, 11, .	1.8	1
103	Generalized network density matrices for analysis of multiscale functional diversity. Physical Review E, 2023, 107, .	2.1	4
104	Dynamical origin of the explosive synchronization with partial adaptive coupling. Chaos, Solitons and Fractals, 2023, 172, 113538.	5.1	3
105	From Discourse Relations to Network Edges: A Network Theory Approach to Discourse Analysis. Applied Sciences (Switzerland), 2023, 13, 6902.	2.5	1
106	Early warning signals for critical transitions in complex systems. Physica Scripta, 2023, 98, 072002.	2.5	3
107	Topologically induced suppression of explosive synchronization. Chaos, 2023, 33, .	2.5	1
108	Two typical analytic models for reverse bond percolation on real networks. Physica A: Statistical Mechanics and Its Applications, 2023, 625, 129029.	2.6	1
109	Synchronization transitions in Kuramoto networks with higher-mode interaction. Chaos, 2023, 33, .	2.5	1
110	Stabilization of a structurally balanced complex network with similar nodes of different dimensions. Applied Mathematics and Computation, 2023, 458, 128238.	2.2	0
111	Collapse transition in epidemic spreading subject to detection with limited resources. Physical Review E, 2023, 108, .	2.1	2

#	Article	IF	Citations
112	Adaptive dynamical networks. Physics Reports, 2023, 1031, 1-59.	25.6	12
114	Universality of explosive percolation under product and sum rule. Physical Review E, 2023, 108, .	2.1	1
116	Entrainment range affected by the second-order interactions between coupled neuron oscillators in the suprachiasmatic nucleus. Chaos, Solitons and Fractals, 2023, 175, 114051.	5.1	0
117	Domain convexification: A simple model for invasion processes. Physical Review E, 2023, 108, .	2.1	0
118	Designing networks with specific synchronization transitions independent of the systemâ€™s dynamics. Physica A: Statistical Mechanics and Its Applications, 2023, 632, 129300.	2.6	0
119	Impact of physicality on network structure. Nature Physics, 0, , .	16.7	1
120	Deterministic correlations enhance synchronization in oscillator populations with heterogeneous coupling. Physical Review E, 2023, 108, .	2.1	0
121	Robustness and resilience of complex networks. Nature Reviews Physics, 2024, 6, 114-131.	26.6	0
122	Diffusion Containment in Complex Networks Through Collective Influence of Connections. IEEE Transactions on Information Forensics and Security, 2024, 19, 1510-1524.	6.9	0
123	Sustainability: We need to focus on overall system outcomes rather than simplistic targets. People and Nature, 2024, 6, 391-401.	3.7	0
124	Pathways to discontinuous transitions in interacting contagion dynamics. Journal of Physics Complexity, 2024, 5, 015015.	2.2	0
125	Order parameter dynamics in complex systems: From models to data. Chaos, 2024, 34, .	2.5	0