James P Gleeson

List of Publications by Year
in descending order

104 papers	5,710 citations	172457 29 h-index	79698 73 g-index
106 all docs	106 docs citations	106 times ranked	4877 citing authors

#	Article	IF	Citations
1	Multilayer networks. Journal of Complex Networks, 2014, 2, 203-271.	1.8	2,388
2	Fabrication of Nanopore Array Electrodes by Focused Ion Beam Milling. Analytical Chemistry, 2007, 79, 3048-3055.	6.5	192
3	Seed size strongly affects cascades on random networks. Physical Review E, 2007, 75, 056103.	2.1	183
4	Cascades on correlated and modular random networks. Physical Review E, 2008, 77, 046117.	2.1	180
5	High-Accuracy Approximation of Binary-State Dynamics on Networks. Physical Review Letters, 2011, 107, 068701.	7.8	176
6	Application of magnetohydrodynamic actuation to continuous flow chemistryElectronic supplementary information (ESI) available: figures depicting a silicon MHD microreactor, finite element solution for velocity profile in the silicon microreactor annulus, and the effect of MHD actuation conditions on the PCR product previously generated by conventional amplification methods and on the PCR reagents prior to thermocycling by conventional methods. See http://www.rsc.org/suppdata/lc/b2/b206756k/. Lab on A Chip, 2002, 2, 224.	6.0	166
7	Percolation in multiplex networks with overlap. Physical Review E, 2013, 88, 052811.	2.1	163
8	Binary-State Dynamics on Complex Networks: Pair Approximation and Beyond. Physical Review X, 2013, 3, .	8.9	137
9	Graph fission in an evolving voter model. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 3682-3687.	7.1	123
10	Accuracy of mean-field theory for dynamics on real-world networks. Physical Review E, 2012, 85, 026106.	2.1	113
11	The unreasonable effectiveness of tree-based theory for networks with clustering. Physical Review E, 2011, 83, 036112.	2.1	111
12	Competition-Induced Criticality in a Model of Meme Popularity. Physical Review Letters, 2014, 112, 048701.	7.8	110
13	Multi-stage complex contagions. Chaos, 2013, 23, 013124.	2.5	94
14	Cascades on a class of clustered random networks. Physical Review E, 2011, 83, 056107.	2.1	91
15	Bond percolation on a class of clustered random networks. Physical Review E, 2009, 80, 036107.	2.1	80
16	A simple generative model of collective online behavior. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10411-10415.	7.1	78
17	How clustering affects the bond percolation threshold in complex networks. Physical Review E, 2010, 81, 066114.	2.1	75
18	Limitations of discrete-time approaches to continuous-time contagion dynamics. Physical Review E, 2016, 94, 052125.	2.1	69

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19	Tricritical Point in Heterogeneous<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>k</mml:mi></mml:math>-Core Percolation. Physical Review Letters, 2011, 107, 175703.	7.8	54
20	Effects of Network Structure, Competition and Memory Time on Social Spreading Phenomena. Physical Review X, 2016, 6, .	8.9	54
21	Multilayer Networks. SSRN Electronic Journal, 0, , .	0.4	50
22	Equivalence between Non-Markovian and Markovian Dynamics in Epidemic Spreading Processes. Physical Review Letters, 2017, 118, 128301.	7.8	50
23	Modelling Annular Micromixers. SIAM Journal on Applied Mathematics, 2004, 64, 1294-1310.	1.8	47
24	Transient micromixing: Examples of laminar and chaotic stirring. Physics of Fluids, 2005, 17, 100614.	4.0	44
25	Temporal profiles of avalanches on networks. Nature Communications, 2017, 8, 1227.	12.8	43
26	Concurrency-Induced Transitions in Epidemic Dynamics on Temporal Networks. Physical Review Letters, 2017, 119, 108301.	7.8	38
27	Structuring laminar flows using annular magnetohydrodynamic actuation. Sensors and Actuators B: Chemical, 2003, 96, 190-199.	7.8	36
28	On Watts' cascade model with random link weights. Journal of Complex Networks, 2013, 1, 25-43.	1.8	36
29	Analytical approach to sorting in periodic and random potentials. Physical Review E, 2006, 73, 041102.	2.1	32
30	Electroosmotic Flows with Random Zeta Potential. Journal of Colloid and Interface Science, 2002, 249, 217-226.	9.4	30
31	Study on the Combined Effects of Solvent Evaporation and Polymer Flow upon Block Copolymer Self-Assembly and Alignment on Topographic Patterns. Langmuir, 2009, 25, 13551-13560.	3.5	30
32	Dynamics on modular networks with heterogeneous correlations. Chaos, 2014, 24, 023106.	2.5	30
33	Contact-Based Model for Epidemic Spreading on Temporal Networks. Physical Review X, 2019, 9, .	8.9	26
34	Mathematical modeling of complex contagion on clustered networks. Frontiers in Physics, 2015, 3, .	2.1	25
35	Multistate Dynamical Processes on Networks: Analysis through Degree-Based Approximation Frameworks. SIAM Review, 2019, 61, 92-118.	9.5	25
36	Assessing police topological efficiency in a major sting operation on the dark web. Scientific Reports, 2020, 10, 73.	3.3	25

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37	Analytical results for bond percolation and k-core sizes on clustered networks. Physical Review E, 2009, 80, 046121.	2.1	24
38	Critical phenomena in heterogeneous k-core percolation. Physical Review E, 2013, 87, 022134.	2.1	23
39	Phase Diffusion Coefficient for Oscillators Perturbed by Colored Noise. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2007, 54, 435-439.	2.2	20
40	Statistical Analysis of First-Order Bang-Bang Phase-Locked Loops Using Sign-Dependent Random-Walk Theory. IEEE Transactions on Circuits and Systems I: Regular Papers, 2010, 57, 2367-2380.	5.4	20
41	Dynamics of cascades on burstiness-controlled temporal networks. Nature Communications, 2021, 12, 133.	12.8	20
42	Mean size of avalanches on directed random networks with arbitrary degree distributions. Physical Review E, 2008, 77, 057101.	2.1	19
43	Cascades on clique-based graphs. Physical Review E, 2013, 87, 062801.	2.1	19
44	Calibrating COVID-19 susceptible-exposed-infected-removed models with time-varying effective contact rates. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, 20210120.	3.4	19
45	A Framework for Analyzing Contagion in Banking Networks. SSRN Electronic Journal, 0, , .	0.4	17
46	A Rolling Optimisation Model of the UK Natural Gas Market. Networks and Spatial Economics, 2014, 14, 209-244.	1.6	16
47	Role of modularity in self-organization dynamics in biological networks. Physical Review E, 2020, 102, 052306.	2.1	16
48	Binary Phase Detector Gain in Bang-Bang Phase-Locked Loops With DCO Jitter. IEEE Transactions on Circuits and Systems II: Express Briefs, 2010, 57, 941-945.	3.0	14
49	Spreading of memes on multiplex networks. New Journal of Physics, 2019, 21, 025001.	2.9	14
50	Non-Lorentzian Spectral Lineshapes Near a Hopf Bifurcation. SIAM Journal on Applied Mathematics, 2006, 66, 1669-1688.	1.8	13
51	Diffusion coefficient in periodic and random potentials. Physical Review E, 2009, 80, 021123.	2.1	13
52	Synchronization Dynamics in Non-Normal Networks: The Trade-Off for Optimality. Entropy, 2021, 23, 36.	2.2	13
53	Network cloning unfolds the effect of clustering on dynamical processes. Physical Review E, 2015, 91, 052807.	2.1	12
54	Statistical characterisation and modelling of random geometric imperfections in cylindrical shells. Thin-Walled Structures, 2012, 58, 9-17.	5.3	11

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55	A closure method for random advection of a passive scalar. Physics of Fluids, 2000, 12, 1472-1484.	4.0	10
56	A framework for analyzing contagion in assortative banking networks. PLoS ONE, 2017, 12, e0170579.	2.5	10
57	Emergence of power laws in noncritical neuronal systems. Physical Review E, 2019, 100, 010401.	2.1	10
58	Exactly solvable model of continuous stationary1â^•fnoise. Physical Review E, 2005, 72, 011106.	2.1	9
59	On asymptotic stability and instability with respect to a fading stochastic perturbation. Applicable Analysis, 2009, 88, 579-603.	1.3	9
60	Generalized mean-field approximation for the Deffuant opinion dynamics model on networks. Physical Review E, 2021, 103, 012314.	2.1	9
61	Branching process descriptions of information cascades on Twitter. Journal of Complex Networks, 2021, 8, .	1.8	9
62	Message-Passing Methods for Complex Contagions. Computational Social Sciences, 2018, , 81-95.	0.4	8
63	Comment on â€œDiffusion in biased turbulenceâ€ Physical Review E, 2002, 66, 038301; discussion 038302.	2.1	7
64	Emergence of coexisting percolating clusters in networks. Physical Review E, 2016, 93, 062308.	2.1	7
65	Dynamics impose limits to detectability of network structure. New Journal of Physics, 2020, 22, 063037.	2.9	7
66	Symmetry-breaking mechanism for the formation of cluster chimera patterns. Chaos, 2022, 32, 013107.	2.5	7
67	Selection of Processing Temperature to Minimize Product Temperature Variability in Food Heating Processes. Food and Bioproducts Processing, 2007, 85, 344-353.	3.6	6
68	Dynamical Systems on Dynamical Networks. Frontiers in Applied Dynamical Systems: Reviews and Tutorials, 2016, , 49-51.	0.5	6
69	Integrating sentiment and social structure to determine preference alignments: the Irish Marriage Referendum. Royal Society Open Science, 2017, 4, 170154.	2.4	6
70	Hierarchical route to the emergence of leader nodes in real-world networks. Physical Review Research, 2021, 3, .	3.6	6
71	An analytical approach to cascades on random networks. , 2007, 6601, 214.		5
72	Quantifying uncertainty in a predictive model for popularity dynamics. Physical Review E, 2020, 101, 062311.	2.1	5

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73	Agreement threshold on Axelrod's model of cultural dissemination. PLoS ONE, 2020, 15, e0233995.	2.5	5
74	Multitype branching process method for modeling complex contagion on clustered networks. Physical Review E, 2022, 105, 034306.	2.1	5
75	Exact solution for single-scale Gaussian random transport. Physical Review E, 2002, 65, 037103.	2.1	4
76	Passive motion in dynamical disorder as a model for stock market prices. Physica A: Statistical Mechanics and Its Applications, 2005, 351, 523-550.	2.6	4
77	The mean field of weakly coupled oscillators exhibits non-smooth phase noise. Europhysics Letters, 2006, 73, 328-334.	2.0	4
78	ROLE OF INTERACTION ON NOISE-INDUCED TRANSPORT OF TWO COUPLED PARTICLES IN BROWNIAN RATCHET DEVICES. Fluctuation and Noise Letters, 2006, 06, L263-L277.	1.5	4
79	Sparse Power-Law Network Model for Reliable Statistical Predictions Based on Sampled Data. Entropy, 2018, 20, 257.	2.2	4
80	A Simple Generative Model of Collective Online Behaviour. SSRN Electronic Journal, 0, , .	0.4	4
81	Flatness of tracer density profile produced by a point source in turbulence. Physics of Fluids, 2003, 15, 3546-3557.	4.0	3
82	Identification of skill in an online game: The case of Fantasy Premier League. PLoS ONE, 2021, 16, e0246698.	2.5	3
83	Variability in output torque of capstan and wrap spring elements. Mechanism and Machine Theory, 2013, 68, 49-66.	4.5	2
84	Analytical approach to the dynamics of facilitated spin models on random networks. Physical Review E, 2014, 90, 032824.	2.1	2
85	Examples of Dynamical Systems. Frontiers in Applied Dynamical Systems: Reviews and Tutorials, 2016, , 5-27.	0.5	2
86	A complex networks approach to ranking professional Snooker players. Journal of Complex Networks, 2021, 8, .	1.8	2
87	Amplitude-phase coupling effects on the spectral lineshape of oscillators. , 2005, , .		1
88	Transport in randomly-fluctuating spatially-periodic potentials. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 277-287.	2.6	1
89	Singularities in Ternary Mixtures of k-core Percolation. Studies in Computational Intelligence, 2013, , 165-172.	0.9	1
90	Motion in random fields: an application to stock market data. , 2004, , .		0

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91	\<title\>Motion in dynamical disorder: applications to 1/f noise and oscillator phase jitter\</title\>. , 2005, , .		0
92	\<title\>Dynamics of two coupled particles: comparison of Lennard-Jones and spring forces\</title\>. , 2005, , .		0
93	A simple model for 1/f spectra in heart rate variability. , 2007, , .		0
94	Combined Effects of Frequency Quantization and Additive Input Noise in a First-order Digital PLL. Electronic Notes in Theoretical Computer Science, 2009, 225, 255-268.	0.9	0
95	A Few Basic Concepts. Frontiers in Applied Dynamical Systems: Reviews and Tutorials, 2016, , 3-4.	0.5	0
96	Software Implementation. Frontiers in Applied Dynamical Systems: Reviews and Tutorials, 2016, , 47-48.	0.5	0
97	Memory-cognizant generalization to Simon's random-copying neutral model. Physical Review Research, 2021, 3, .	3.6	0
98	Analytical Approach to Bond Percolation on Clustered Networks. Studies in Computational Intelligence, 2009, , 147-159.	0.9	0
99	Agreement threshold on Axelrodâ€™s model of cultural dissemination. , 2020, 15, e0233995.		0
100	Agreement threshold on Axelrodâ€™s model of cultural dissemination. , 2020, 15, e0233995.		0
101	Agreement threshold on Axelrodâ€™s model of cultural dissemination. , 2020, 15, e0233995.		0
102	Agreement threshold on Axelrodâ€™s model of cultural dissemination. , 2020, 15, e0233995.		0
103	Agreement threshold on Axelrodâ€™s model of cultural dissemination. , 2020, 15, e0233995.		0
104	Agreement threshold on Axelrodâ€™s model of cultural dissemination. , 2020, 15, e0233995.		0