Claudio Castellano

List of Publications by Year
in descending order

128 papers	13,072 citations	87723 38 h-index	22764 112 g-index
128 all docs	128 docs citations	128 times ranked	7973 citing authors

#	Article	IF	Citations
1	Statistical physics of social dynamics. Reviews of Modern Physics, 2009, 81, 591-646.	16.4	3,013
2	Epidemic processes in complex networks. Reviews of Modern Physics, 2015, 87, 925-979.	16.4	2,484
3	Defining and identifying communities in networks. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 2658-2663.	3.3	2,029
4	Universality of citation distributions: Toward an objective measure of scientific impact. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 17268-17272.	3.3	623
5	Thresholds for Epidemic Spreading in Networks. Physical Review Letters, 2010, 105, 218701.	2.9	524
6	Nonequilibrium Phase Transition in a Model for Social Influence. Physical Review Letters, 2000, 85, 3536-3539.	2.9	246
7	Nature of the Epidemic Threshold for the Susceptible-Infected-Susceptible Dynamics in Networks. Physical Review Letters, 2013, 111, 068701.	2.9	212
8	Epidemic thresholds of the susceptible-infected-susceptible model on networks: A comparison of numerical and theoretical results. Physical Review E, 2012, 86, 041125.	0.8	211
9	Nonlinear q-voter model. Physical Review E, 2009, 80, 041129.	0.8	191
10	Incomplete ordering of the voter model on small-world networks. Europhysics Letters, 2003, 63, 153-158.	0.7	179
11	Scaling and Universality in Proportional Elections. Physical Review Letters, 2007, 99, 138701.	2.9	139
12	Griffiths Phases on Complex Networks. Physical Review Letters, 2010, 105, 128701.	2.9	122
13	Competing activation mechanisms in epidemics on networks. Scientific Reports, 2012, 2, 371.	1.6	119
14	Comparison of voter and Glauber ordering dynamics on networks. Physical Review E, 2005, 71, 066107.	0.8	114
15	Signature of effective mass in crackling-noise asymmetry. Nature Physics, 2005, 1, 46-49.	6.5	113
16	Non-Mean-Field Behavior of the Contact Process on Scale-Free Networks. Physical Review Letters, 2006, 96, 038701.	2.9	111
17	Langevin approach for the dynamics of the contact process on annealed scale-free networks. Physical Review E, 2009, 79, 036110.	0.8	94
18	Rescaling citations of publications in physics. Physical Review E, 2011, 83, 046116.	0.8	80

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19	Community Structure in Graphs. , 2012, , 490-512.		78
20	Distinct types of eigenvector localization in networks. Scientific Reports, 2016, 6, 18847.	1.6	75
21	A Reverse Engineering Approach to the Suppression of Citation Biases Reveals Universal Properties of Citation Distributions. PLoS ONE, 2012, 7, e33833.	1.1	71
22	Testing the fairness of citation indicators for comparison across scientific domains: The case of fractional citation counts. Journal of Informetrics, 2012, 6, 121-130.	1.4	68
23	Solution of voter model dynamics on annealed small-world networks. Physical Review E, 2004, 69, 016109.	0.8	64
24	Average Shape of a Fluctuation: Universality in Excursions of Stochastic Processes. Physical Review Letters, 2003, 90, 060601.	2.9	62
25	Nonperturbative Renormalization of the Kardar-Parisi-Zhang Growth Dynamics. Physical Review Letters, 1998, 80, 3527-3530.	2.9	60
26	Heterogeneous pair approximation for voter models on networks. Europhysics Letters, 2009, 88, 58004.	0.7	60
27	Leveraging percolation theory to single out influential spreaders in networks. Physical Review E, 2016, 93, 062314.	0.8	59
28	Self-contained algorithms to detect communities in networks. European Physical Journal B, 2004, 38, 311-319.	0.6	58
29	Ordering phase transition in the one-dimensional Axelrod model. European Physical Journal B, 2002, 30, 399-406.	0.6	56
30	Routes to Thermodynamic Limit on Scale-Free Networks. Physical Review Letters, 2008, 100, 148701.	2.9	52
31	Breaking of the site-bond percolation universality in networks. Nature Communications, 2015, 6, 10196.	5.8	51
32	Effective surface-tension in the noise-reduced voter model. Europhysics Letters, 2007, 77, 60005.	0.7	49
33	Quasistationary simulations of the contact process on quenched networks. Physical Review E, 2011, 84, 066102.	0.8	48
34	Quantitative evaluation of alternative field normalization procedures. Journal of Informetrics, 2013, 7, 746-755.	1.4	48
35	Beyond the locally treelike approximation for percolation on real networks. Physical Review E, 2016, 93, 030302.	0.8	48
36	Statistical physics of the Schelling model of segregation. Journal of Statistical Mechanics: Theory and Experiment, 2008, 2008, L07002.	0.9	47

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37	Voter models on weighted networks. Physical Review E, 2011, 83, 066117.	0.8	44
38	Analysis of bibliometric indicators for individual scholars in a large data set. Scientometrics, 2013, 97, 627-637.	1.6	42
39	Relating Topological Determinants of Complex Networks to Their Spectral Properties: Structural and Dynamical Effects. Physical Review X, 2017, 7, .	2.8	39
40	Mean-Field Analysis of the q-Voter Model on Networks. Journal of Statistical Physics, 2013, 151, 113-130.	0.5	38
41	Rare-region effects in the contact process on networks. Physical Review E, 2012, 85, 066125.	0.8	37
42	Eigenvector Localization in Real Networks and Its Implications for Epidemic Spreading. Journal of Statistical Physics, 2018, 173, 1110-1123.	0.5	37
43	Effect of network topology on the ordering dynamics of voter models. AIP Conference Proceedings, 2005, , .	0.3	35
44	Fundamental difference between superblockers and superspreaders in networks. Physical Review E, 2017, 95, 012318.	0.8	35
45	Systematic comparison between methods for the detection of influential spreaders in complex networks. Scientific Reports, 2019, 9, 15095.	1.6	34
46	On the mechanism of pinning in phase€separating polymer blends. Journal of Chemical Physics, 1995, 103, 9363-9369.	1.2	32
47	Zero temperature Glauber dynamics on complex networks. Journal of Statistical Mechanics: Theory and Experiment, 2006, 2006, P05001-P05001.	0.9	31
48	On the fairness of using relative indicators for comparing citation performance in different disciplines. Archivum Immunologiae Et Therapiae Experimentalis, 2009, 57, 85-90.	1.0	31
49	Mutually cooperative epidemics on power-law networks. Physical Review E, 2017, 96, 022301.	0.8	31
50	Mean-field limit of systems with multiplicative noise. Physical Review E, 2005, 72, 056102.	0.8	30
51	Internal and External Dynamics in Language: Evidence from Verb Regularity in a Historical Corpus of English. PLoS ONE, 2014, 9, e102882.	1.1	30
52	High dimensional behavior of the Kardar-Parisi-Zhang growth dynamics. Physical Review E, 1998, 58, R5209-R5212.	0.8	28
53	Spatiotemporal Distribution of Nucleation Events during Crystal Growth. Physical Review Letters, 2001, 87, 056102.	2.9	27
54	Condensation vs phase ordering in the dynamics of first-order transitions. Physical Review E, 1997, 56, 4973-4989.	0.8	26

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55	Epidemic spreading and aging in temporal networks with memory. Physical Review E, 2018, 98, .	0.8	26
56	Criticality in models for fracture in disordered media. Physica A: Statistical Mechanics and Its Applications, 1999, 270, 15-20.	1.2	24
57	Generic features of the fluctuation dissipation relation in coarsening systems. Physical Review E, 2004, 70, 017103.	0.8	24
58	Castellano and Pastor-Satorras Reply:. Physical Review Letters, 2007, 98, .	2.9	24
59	Field‐normalized impact factors (<scp>IFs</scp>): A comparison of rescaling and fractionally counted <scp>IFs</scp>. Journal of the Association for Information Science and Technology, 2013, 64, 2299-2309.	2.6	24
60	Coevolution of Glauber-like Ising dynamics and topology. Physical Review E, 2009, 80, 056105.	0.8	23
61	Irrelevance of information outflow in opinion dynamics models. Physical Review E, 2011, 83, 016113.	0.8	23
62	The adoption of linguistic rules in native and non-native speakers: Evidence from a Wug task. Journal of Memory and Language, 2015, 84, 205-223.	1.1	22
63	Interplay between media and social influence in the collective behavior of opinion dynamics. Physical Review E, 2015, 92, 042815.	0.8	22
64	Fractal and topological properties of directed fractures. Physical Review E, 1994, 49, 2673-2679.	0.8	21
65	Universality of the off-equilibrium response function in the kinetic Ising chain. Physical Review E, 2002, 65, 066114.	0.8	21
66	Spectral properties and the accuracy of mean-field approaches for epidemics on correlated power-law networks. Physical Review Research, 2019, 1, .	1.3	21
67	Scale invariant dynamics of surface growth. Physical Review E, 1999, 59, 6460-6475.	0.8	20
68	Process of irreversible nucleation in multilayer growth. I. Failure of the mean-field approach. Physical Review E, 2002, 66, 031605.	0.8	19
69	Topological structure and the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>H</mml:mi></mml:math>index in complex networks. Physical Review E, 2017, 95, 022301.	0.8	19
70	Glass temperature depression of polymer by use of mixed solvents: A colligative property. Journal of Polymer Science, Part B: Polymer Physics, 1996, 34, 535-543.	2.4	18
71	Average trajectory of returning walks. Physical Review E, 2004, 69, 041105.	0.8	18
72	Consensus versus persistence of disagreement in opinion formation: the role of zealots. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 033401.	0.9	16

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73	Dynamics to Equilibrium in Network Games: Individual Behavior and Global Response. PLoS ONE, 2015, 10, e0120343.	1.1	15
74	Cumulative Merging Percolation and the Epidemic Transition of the Susceptible-Infected-Susceptible Model in Networks. Physical Review X, 2020, 10, .	2.8	15
75	Emergence of polarization in a voter model with personalized information. Physical Review Research, 2020, 2, .	1.3	15
76	Process of irreversible nucleation in multilayer growth. II. Exact results in one and two dimensions. Physical Review E, 2002, 66, 031606.	0.8	14
77	General three-state model with biased population replacement: Analytical solution and application to language dynamics. Physical Review E, 2015, 91, 012808.	0.8	14
78	Relevance of backtracking paths in recurrent-state epidemic spreading on networks. Physical Review E, 2018, 98, .	0.8	14
79	Influential spreaders for recurrent epidemics on networks. Physical Review Research, 2020, 2, .	1.3	14
80	Competition between vaccination and disease spreading. Physical Review E, 2020, 101, 062306.	0.8	13
81	Message-passing theory for cooperative epidemics. Chaos, 2020, 30, 023131.	1.0	13
82	Stochastic sampling effects favor manual over digital contact tracing. Nature Communications, 2021, 12, 1919.	5.8	13
83	Universality, criticality and complexity of information propagation in social media. Nature Communications, 2022, 13, 1308.	5.8	13
84	On the numerical study of percolation and epidemic critical properties in networks. European Physical Journal B, 2016, 89, 1.	0.6	12
85	Small world in the real world: Long distance dispersal governs epidemic dynamics in agricultural landscapes. Epidemics, 2020, 30, 100384.	1.5	12
86	Multiscaling to standard-scaling crossover in the Bray-Humayun model for phase-ordering kinetics. Physical Review E, 1996, 53, 1430-1440.	0.8	11
87	Pinning of phase separation in a model of binary polymer blends. Physical Review E, 2000, 61, 3252-3255.	0.8	11
88	Irreversible nucleation in molecular beam epitaxy:â€ƒFrom theory to experiments. Physical Review B, 2003, 67, .	1.1	11
89	Social Influence and the Dynamics of Opinions: The Approach of Statistical Physics. Managerial and Decision Economics, 2012, 33, 311-321.	1.3	11
90	Uncertainty Reduction for Stochastic Processes on Complex Networks. Physical Review Letters, 2018, 120, 198301.	2.9	11

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91	Approach to Scaling in Phase-Ordering Kinetics. Physical Review Letters, 1996, 77, 2742-2745.	2.9	10
92	Universal and nonuniversal features of the generalized voter class for ordering dynamics in two dimensions. Physical Review E, 2012, 86, 051123.	0.8	10
93	Rapid decay in the relative efficiency of quarantine to halt epidemics in networks. Physical Review E, 2018, 97, 022308.	0.8	10
94	Effect of network clustering on mutually cooperative coinfections. Physical Review E, 2019, 99, 022301.	0.8	10
95	Overall time evolution in phase-ordering kinetics. Physical Review E, 1998, 58, 5410-5423.	0.8	9
96	Coarsening and pinning in the self-consistent solution of polymer blends phase-separation kinetics. Physical Review E, 1998, 57, 672-682.	0.8	9
97	Signature of negative domain wall mass in soft magnetic materials. Journal of Magnetism and Magnetic Materials, 2007, 316, 436-441.	1.0	9
98	Lifespan method as a tool to study criticality in absorbing-state phase transitions. Physical Review E, 2015, 91, 052117.	0.8	9
99	Analytical study of quality-biased competition dynamics for memes in social media. Europhysics Letters, 2018, 122, 28002.	0.7	9
100	The localization of non-backtracking centrality in networks and its physical consequences. Scientific Reports, 2020, 10, 21639.	1.6	9
101	Nonmonotonic roughness evolution in unstable growth. Physical Review B, 2000, 62, 2879-2888.	1.1	8
102	Physics peeks into the ballot box. Physics Today, 2012, 65, 74-75.	0.3	8
103	Classes of critical avalanche dynamics in complex networks. Physical Review Research, 2020, 2, .	1.3	8
104	Effect of delayed awareness and fatigue on the efficacy of self-isolation in epidemic control. Physical Review E, 2021, 104, 044316.	0.8	8
105	Sideward contact tracing and the control of epidemics in large gatherings. Journal of the Royal Society Interface, 2022, 19, 20220048.	1.5	7
106	Collaborate, compete and share. European Physical Journal B, 2009, 67, 319-327.	0.6	6
107	The regularity game: Investigating linguistic rule dynamics in a population of interacting agents. Cognition, 2017, 159, 25-32.	1.1	6
108	Phase ordering of conserved vectorial systems with field-dependent mobility. Physical Review E, 1998, 58, 4658-4665.	0.8	4

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109	Critical behaviour in the fracture of disordered media. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1999, 79, 1939-1944.	0.6	4
110	Fast growth at low temperature in vacancy-mediated phase separation. Physical Review B, 2001, 63, .	1.1	4
111	Nucleation and step-edge barriers always destabilize step-flow growth of a vicinal surface. Surface Science, 2005, 588, L227-L232.	0.8	4
112	Breakdown of metastable step-flow growth on vicinal surfaces induced by nucleation. Physical Review B, 2005, 72, .	1.1	4
113	Understanding the Scientific Enterprise: Citation Analysis, Data and Modeling. , 2015, , 135-151.		4
114	Why Sirtes's claims () do not square with reality. Journal of Informetrics, 2012, 6, 615-618.	1.4	3
115	Percolation theory of self-exciting temporal processes. Physical Review E, 2021, 103, L020302.	0.8	3
116	Influence of individual nodes for continuous-time susceptible-infected-susceptible dynamics on synthetic and real-world networks. Physical Review E, 2021, 104, 014306.	0.8	3
117	Filter bubble effect in the multistate voter model. Chaos, 2022, 32, 043103.	1.0	3
118	Griffiths phases in the contact process on complex networks. , 2011, , .		2
119	Degree-ordered-percolation on uncorrelated networks. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 113401.	0.9	2
120	Non perturbative renormalization group approach to surface growth. Computer Physics Communications, 1999, 121-122, 358-362.	3.0	1
121	Preasymptotic multiscaling in the phase-ordering dynamics of the kinetic Ising model. Europhysics Letters, 1999, 47, 158-163.	0.7	1
122	Fluctuations and scaling in models for particle aggregation. Surface Science, 2006, 600, 2392-2401.	0.8	1
123	Theoretical Approaches to the Susceptible-Infected-Susceptible Dynamics on Complex Networks: Mean-Field Theories and Beyond. NATO Science for Peace and Security Series C: Environmental Security, 2014, , 133-145.	0.1	1
124	Cumulative merging percolation: A long-range percolation process in networks. Physical Review E, 2022, 105, .	0.8	1
125	Crossover from multiscaling to standard scaling in systems with conserved scalar order parameter. Computer Physics Communications, 1999, 121-122, 317-320.	3.0	0
126	STANDARD SCALING AND MULTISCALING IN PHASE ORDERING DYNAMICS. Fractals, 2003, 11, 197-202.	1.8	0

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127	Time asymmetry of magnetic noise. , 2004, , .		0
128	Griffiths phases in the contact process on complex networks. AIP Conference Proceedings, 2011, , .	0.3	0