Stephen Eubank

List of Publications by Year
in descending order

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99 papers	9,293 citations	172207 29 h-index	74018 75 g-index
107 all docs	107 docs citations	107 times ranked	8985 citing authors

#	Article	IF	Citations
1	Testing for nonlinearity in time series: the method of surrogate data. Physica D: Nonlinear Phenomena, 1992, 58, 77-94.	1.3	3,281
2	Modelling disease outbreaks in realistic urban social networks. Nature, 2004, 429, 180-184.	13.7	1,685
3	Modeling targeted layered containment of an influenza pandemic in the United States. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 4639-4644.	3.3	570
4	State space reconstruction in the presence of noise. Physica D: Nonlinear Phenomena, 1991, 51, 52-98.	1.3	448
5	Commentary on Ferguson, et al., â€œImpact of Non-pharmaceutical Interventions (NPIs) to Reduce COVID-19 Mortality and Healthcare Demandâ€. Bulletin of Mathematical Biology, 2020, 82, 52.	0.9	264
6	What Factors Might Have Led to the Emergence of Ebola in West Africa?. PLoS Neglected Tropical Diseases, 2015, 9, e0003652.	1.3	206
7	An analytic approach to practical state space reconstruction. Physica D: Nonlinear Phenomena, 1992, 57, 1-30.	1.3	166
8	Mixing patterns between age groups in social networks. Social Networks, 2007, 29, 539-554.	1.3	161
9	Scaling laws for the movement of people between locations in a large city. Physical Review E, 2003, 68, 066102.	0.8	151
10	Results from the centers for disease control and preventionâ€™s predict the 2013â€“2014 Influenza Season Challenge. BMC Infectious Diseases, 2016, 16, 357.	1.3	144
11	Modeling the Impact of Interventions on an Epidemic of Ebola in Sierra Leone and Liberia. PLOS Currents, 2014, 6, .	1.4	143
12	EpiSimdemics: An efficient algorithm for simulating the spread of infectious disease over large realistic social networks. , 2008, , .		130
13	If Smallpox Strikes Portland .... Scientific American, 2005, 292, 54-61.	1.0	127
14	Enhancing disease surveillance with novel data streams: challenges and opportunities. EPJ Data Science, 2015, 4, .	1.5	119
15	Systems Modeling of Molecular Mechanisms Controlling Cytokine-driven CD4+ T Cell Differentiation and Phenotype Plasticity. PLoS Computational Biology, 2013, 9, e1003027.	1.5	111
16	Social Network Analysis of Patient Sharing Among Hospitals in Orange County, California. American Journal of Public Health, 2011, 101, 707-713.	1.5	102
17	A Research Agenda for Malaria Eradication: Modeling. PLoS Medicine, 2011, 8, e1000403.	3.9	89
18	Donâ€™t bleach chaotic data. Chaos, 1993, 3, 771-782.	1.0	85

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19	Mathematical models: A key tool for outbreak response. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 18095-18096.	3.3	78
20	Modeling of Wildlife-Associated Zoonoses: Applications and Caveats. Vector-Borne and Zoonotic Diseases, 2012, 12, 1005-1018.	0.6	73
21	Model of colonic inflammation: Immune modulatory mechanisms in inflammatory bowel disease. Journal of Theoretical Biology, 2010, 264, 1225-1239.	0.8	68
22	Quantifying Interhospital Patient Sharing as a Mechanism for Infectious Disease Spread. Infection Control and Hospital Epidemiology, 2010, 31, 1160-1169.	1.0	65
23	Modeling the Spread of Methicillin-Resistant Staphylococcus aureus (MRSA) Outbreaks throughout the Hospitals in Orange County, California. Infection Control and Hospital Epidemiology, 2011, 32, 562-572.	1.0	62
24	Predictive Computational Modeling of the Mucosal Immune Responses during Helicobacter pylori Infection. PLoS ONE, 2013, 8, e73365.	1.1	53
25	Modeling the Impact of Interventions on an Epidemic of Ebola in Sierra Leone and Liberia. PLOS Currents, 2014, 6, .	1.4	45
26	Distribution of vaccine/antivirals and the â€˜least spread lineâ€™ in a stratified population. Journal of the Royal Society Interface, 2010, 7, 755-764.	1.5	44
27	Ebola: Mobility data. Science, 2014, 346, 433-433.	6.0	39
28	The Ecology of Pathogen Spillover and Disease Emergence at the Human-Wildlife-Environment Interface. Advances in Environmental Microbiology, 2018, , 267-298.	0.1	37
29	Scalable, efficient epidemiological simulation. , 2002, , .		36
30	Disparities in spread and control of influenza in slums of Delhi: findings from an agent-based modelling study. BMJ Open, 2018, 8, e017353.	0.8	36
31	Epidemiological and economic impact of COVID-19 in the US. Scientific Reports, 2021, 11, 20451.	1.6	35
32	ENteric Immunity SImulator: A Tool for In Silico Study of Gastroenteric Infections. IEEE Transactions on Nanobioscience, 2012, 11, 273-288.	2.2	34
33	Medical costs of keeping the US economy open during COVID-19. Scientific Reports, 2020, 10, 18422.	1.6	32
34	Detail in network models of epidemiology: are we there yet?. Journal of Biological Dynamics, 2010, 4, 446-455.	0.8	30
35	Modeling the regional spread and control of vancomycin-resistant enterococci. American Journal of Infection Control, 2013, 41, 668-673.	1.1	29
36	Modeling and Simulation of Large Biological, Information and Socio-Technical Systems: An Interaction Based Approach. , 2006, , 353-392.		28

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37	Sensitivity Analysis of an ENteric Immunity SImulator (ENISI)-Based Model of Immune Responses to Helicobacter pylori Infection. PLoS ONE, 2015, 10, e0136139.	1.1	24
38	Comparing Effectiveness of Top-Down and Bottom-Up Strategies in Containing Influenza. PLoS ONE, 2011, 6, e25149.	1.1	24
39	Sensitivity of Household Transmission to Household Contact Structure and Size. PLoS ONE, 2011, 6, e22461.	1.1	23
40	Network reliability: The effect of local network structure on diffusive processes. Physical Review E, 2013, 88, 052810.	0.8	22
41	Multi-scale immunoepidemiological modeling of within-host and between-host HIV dynamics: systematic review of mathematical models. PeerJ, 2017, 5, e3877.	0.9	21
42	Modeling the effect of transient populations on epidemics in Washington DC. Scientific Reports, 2013, 3, 3152.	1.6	19
43	Epidemiological and economic impact of pandemic influenza in Chicago: Priorities for vaccine interventions. PLoS Computational Biology, 2017, 13, e1005521.	1.5	19
44	Planning and response in the aftermath of a large crisis: An agent-based informatics framework. , 2013, 2013, 1515-1526.		16
45	The contagious nature of imprisonment: an agent-based model to explain racial disparities in incarceration rates. Journal of the Royal Society Interface, 2014, 11, 20140409.	1.5	16
46	A Simulation Environment for the Dynamic Evaluation of Disaster Preparedness Policies and Interventions. Journal of Public Health Management and Practice, 2013, 19, S42-S48.	0.7	15
47	ENteric Immunity SImulator: A Tool for in silico Study of Gut Immunopathologies. , 2011, , .		14
48	ENISI Visual, an agent-based simulator for modeling gut immunity. , 2012, , .		14
49	in silico Surveillance: evaluating outbreak detection with simulation models. BMC Medical Informatics and Decision Making, 2013, 13, 12.	1.5	13
50	A Two-stage, Fitted Values Approach to Activity Matching. International Journal of Transportation, 2016, 4, 41-56.	0.4	13
51	High-Performance Interaction-Based Simulation of Gut Immunopathologies with ENteric Immunity Simulator (ENISI). , 2012, , .		12
52	What to know before forecasting the flu. PLoS Computational Biology, 2018, 14, e1005964.	1.5	11
53	Epidemiology and Wireless Communication: Tight Analogy or Loose Metaphor?. Lecture Notes in Computer Science, 2008, , 91-104.	1.0	11
54	From network reliability to the Ising model: A parallel scheme for estimating the joint density of states. Physical Review E, 2016, 94, 042125.	0.8	10

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55	Estimating Human Cases of Avian Influenza A(H7N9) from Poultry Exposure. PLOS Currents, 2013, 5, .	1.4	10
56	Modeling commodity flow in the context of invasive species spread: Study of Tuta absoluta in Nepal. Crop Protection, 2020, 135, 104736.	1.0	9
57	Interactive computer simulation and analysis of Newtonian dynamics. American Journal of Physics, 1989, 57, 457-463.	0.3	8
58	Interactions among human behavior, social networks, and societal infrastructures: A Case Study in Computational Epidemiology. , 2009, , 477-507.		8
59	Modeling the Interaction between Emergency Communications and Behavior in the Aftermath of a Disaster. Lecture Notes in Computer Science, 2013, , 476-485.	1.0	8
60	Model-Based Forecasting of Significant Societal Events. IEEE Intelligent Systems, 2015, 30, 86-90.	4.0	7
61	The Effect of Random Edge Removal on Network Degree Sequence. Electronic Journal of Combinatorics, 2012, 19, .	0.2	7
62	Agent-Based Modeling and High Performance Computing. , 2016, , 79-111.		6
63	Determining whether a class of random graphs is consistent with an observed contact network. Journal of Theoretical Biology, 2018, 440, 121-132.	0.8	5
64	Hospitals as Complex Social Systems: Agent-Based Simulations of Hospital-Acquired Infections. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2013, , 165-178.	0.2	5
65	Beyond Degree Distributions: Local to Global Structure of Social Contact Graphs. Lecture Notes in Computer Science, 2010, , 1-1.	1.0	5
66	Reinventing Part-Of-Speech Tagging. Journal of Natural Language Processing, 1998, 5, 3-23.	0.1	5
67	Migdal-Kadanoff determination of the Gell-Mannâ€"Low function for mixed action SU(2) lattice gauge theories. Nuclear Physics B, 1987, 285, 363-389.	0.9	4
68	Infectious Disease Modeling and Military Readiness. Emerging Infectious Diseases, 2009, 15, e1-e1.	2.0	4
69	Using the network reliability polynomial to characterize and design networks. Journal of Complex Networks, 2014, 2, 356-372.	1.1	4
70	Towards robust models of food flows and their role in invasive species spread. , 2017, , .		4
71	Impact of Paid Sick Leave Policy: A Social Planner's Perspective. American Journal of Public Health, 2014, 104, e1-e1.	1.5	3
72	CINET 2.0: A CyberInfrastructure for Network Science. , 2014, , .		3

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73	Correction for Lofgren et al., Opinion: Mathematical models: A key tool for outbreak response. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, .	3.3	3
74	A Scalable Data Management Tool to Support Epidemiological Modeling of Large Urban Regions. Lecture Notes in Computer Science, 2007, , 546-548.	1.0	3
75	Using Network Reliability to Understand International Food Trade Dynamics. Studies in Computational Intelligence, 2019, , 524-535.	0.7	3
76	Information Integration to Support Model-Based Policy Informatics. Innovation Journal, 2011, 16, .	0.0	3
77	Analyzing network reliability using structural motifs. Physical Review E, 2015, 91, 042814.	0.8	2
78	Addressing the Race Gap in Incarceration Rates: An Agent Based Model. Corrections, 2017, 2, 71-90.	0.5	2
79	Validating Agent-Based Models of Large Networked Systems. , 2019, , .		2
80	Characterizing Relevant Network Structure with Reliability Polynomials. Understanding Complex Systems, 2014, , 117-143.	0.3	2
81	An Interaction Based Composable Architecture for Building Scalable Models of Large Social, Biological, Information and Technical Systems. CTWatch Quarterly: Cyberinfrastructure Technology Watch, 2008, 4, 46-53.	0.0	2
82	The Effect of Random Edge Removal on Network Degree Sequence. Electronic Journal of Combinatorics, 2012, 19, .	0.2	2
83	Transportation Networks: Dynamics and Simulation. AIP Conference Proceedings, 2002, , .	0.3	1
84	Policy informatics for co-evolving socio-technical networks. , 2009, , .		1
85	From biological and social network metaphors to coupled bio-social wireless networks. International Journal of Autonomous and Adaptive Communications Systems, 2011, 4, 122.	0.2	1
86	Determining and Understanding Dynamically Important Differences between Complex Networks Using Reliability-Induced Structural Motifs. , 2013, , .		1
87	State space forecasting and noise reduction. , 1990, , .		0
88	Clustering method incorporating network topology and dynamics. , 2010, , .		0
89	Optimizing epidemic protection for socially essential workers. , 2012, , .		0
90	High performance informatics for pandemic preparedness. , 2012, , .		0

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91	A Synthetic Information Approach to Urban-Scale Disaster Modeling. , 2013, , .		0
92	Economic evaluation of influenza vaccine intervention. International Journal of Infectious Diseases, 2016, 45, 159.	1.5	0
93	Pandemics, Detection and Management. , 2008, , 839-843.		0
94	Modeling Chaotic Systems. , 1997, , 152-175.		0
95	Pandemics, Detection and Management. , 2016, , 1-7.		0
96	Impact of a Surface Nuclear Blast on the Transient Stability of the Power System. Lecture Notes in Computer Science, 2016, , 153-158.	1.0	0
97	Pandemics, Detection and Management. , 2017, , 1547-1553.		0
98	Modeling Urban Mobility Networks Using Constrained Labeled Sequences. Studies in Computational Intelligence, 2020, , 955-966.	0.7	0
99	Using Network Reliability to Understand International Food Trade Dynamics. , 2019, 812, 524-535.		0