

Stefan Bornholdt

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/10702335/publications.pdf>

Version: 2024-02-01

58
papers

6,150
citations

172457

29
h-index

144013

57
g-index

70
all docs

70
docs citations

70
times ranked

5451
citing authors

#	ARTICLE	IF	CITATIONS
1	Statistical mechanics of community detection. <i>Physical Review E</i> , 2006, 74, 016110.	2.1	1,427
2	Scale-free topology of e-mail networks. <i>Physical Review E</i> , 2002, 66, 035103.	2.1	685
3	Detecting Fuzzy Community Structures in Complex Networks with a Potts Model. <i>Physical Review Letters</i> , 2004, 93, 218701.	7.8	445
4	Boolean Network Model Predicts Cell Cycle Sequence of Fission Yeast. <i>PLoS ONE</i> , 2008, 3, e1672.	2.5	421
5	SYSTEMS BIOLOGY: Less Is More in Modeling Large Genetic Networks. <i>Science</i> , 2005, 310, 449-451.	12.6	308
6	Boolean network models of cellular regulation: prospects and limitations. <i>Journal of the Royal Society Interface</i> , 2008, 5, S85-94.	3.4	303
7	Emergence of a Small World from Local Interactions: Modeling Acquaintance Networks. <i>Physical Review Letters</i> , 2002, 88, 128701.	7.8	247
8	Topological Evolution of Dynamical Networks: Global Criticality from Local Dynamics. <i>Physical Review Letters</i> , 2000, 84, 6114-6117.	7.8	221
9	Topology of biological networks and reliability of information processing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 18414-18419.	7.1	164
10	EXPECTATION BUBBLES IN A SPIN MODEL OF MARKETS: INTERMITTENCY FROM FRUSTRATION ACROSS SCALES. <i>International Journal of Modern Physics C</i> , 2001, 12, 667-674.	1.7	162
11	Stable and unstable attractors in Boolean networks. <i>Physical Review E</i> , 2005, 72, 055101.	2.1	126
12	Self-organized critical neural networks. <i>Physical Review E</i> , 2003, 67, 066118.	2.1	105
13	Robustness as an evolutionary principle. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2000, 267, 2281-2286.	2.6	102
14	Dynamics of price and trading volume in a spin model of stock markets with heterogeneous agents. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002, 316, 441-452.	2.6	101
15	The transition from differential equations to Boolean networks: A case study in simplifying a regulatory network model. <i>Journal of Theoretical Biology</i> , 2008, 255, 269-277.	1.7	99
16	World Wide Web scaling exponent from Simon's 1955 model. <i>Physical Review E</i> , 2001, 64, 035104.	2.1	97
17	When are networks truly modular?. <i>Physica D: Nonlinear Phenomena</i> , 2006, 224, 20-26.	2.8	82
18	Dynamics of social networks. <i>Complexity</i> , 2002, 8, 24-27.	1.6	80

#	ARTICLE	IF	CITATIONS
19	Neutral Mutations and Punctuated Equilibrium in Evolving Genetic Networks. <i>Physical Review Letters</i> , 1998, 81, 236-239.	7.8	78
20	Superstability of the yeast cell-cycle dynamics: Ensuring causality in the presence of biochemical stochasticity. <i>Journal of Theoretical Biology</i> , 2007, 245, 638-643.	1.7	64
21	Coevolution of Quasispecies: B-Cell Mutation Rates Maximize Viral Error Catastrophes. <i>Physical Review Letters</i> , 2002, 88, 068104.	7.8	62
22	Partitioning and modularity of graphs with arbitrary degree distribution. <i>Physical Review E</i> , 2007, 76, 015102.	2.1	61
23	Criticality in random threshold networks: annealed approximation and beyond. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002, 310, 245-259.	2.6	59
24	The interdependent network of gene regulation and metabolism is robust where it needs to be. <i>Nature Communications</i> , 2017, 8, 534.	12.8	53
25	Viral evolution under the pressure of an adaptive immune system: Optimal mutation rates for viral escape. <i>Complexity</i> , 2002, 8, 28-33.	1.6	44
26	Boolean Network Model Predicts Knockout Mutant Phenotypes of Fission Yeast. <i>PLoS ONE</i> , 2013, 8, e71786.	2.5	40
27	Required but disguised: environmental signals in limestone "marl alternations. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2003, 189, 161-178.	2.3	36
28	Orbital frequencies in the carbonate sedimentary record: distorted by diagenesis?. <i>Facies</i> , 2004, 50, 3-11.	1.4	36
29	Ensembles, dynamics, and cell types: Revisiting the statistical mechanics perspective on cellular regulation. <i>Journal of Theoretical Biology</i> , 2019, 467, 15-22.	1.7	34
30	Avalanches in Self-Organized Critical Neural Networks: A Minimal Model for the Neural SOC Universality Class. <i>PLoS ONE</i> , 2014, 9, e93090.	2.5	32
31	Stability of money: phase transitions in an Ising economy. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2002, 316, 453-468.	2.6	27
32	Opinion formation model for markets with a social temperature and fear. <i>Physical Review E</i> , 2012, 86, 056106.	2.1	24
33	Self-organizing criticality, large anomalous mass dimension and the gauge hierarchy problem. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1992, 282, 399-405.	4.1	21
34	Mean-field-like behavior of the generalized voter-model-class kinetic Ising model. <i>Physical Review E</i> , 2012, 85, 031126.	2.1	20
35	The Citation Wake of Publications Detects Nobel Laureates' Papers. <i>PLoS ONE</i> , 2014, 9, e113184.	2.5	20
36	Neural network interpretation of LWD data (ODP Leg 170) confirms complete sediment subduction at the Costa Rica convergent margin. <i>Earth and Planetary Science Letters</i> , 2000, 174, 301-312.	4.4	19

#	ARTICLE	IF	CITATIONS
37	Clustering of sparse data via network communitiesâ€”a prototype study of a large online market. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2007, 2007, P06016-P06016.	2.3	19
38	Spin models as microfoundation of macroscopic market models. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2013, 392, 4048-4054.	2.6	19
39	Binary threshold networks as a natural null model for biological networks. <i>Physical Review E</i> , 2012, 86, 026114.	2.1	16
40	Genetic algorithm dynamics on a rugged landscape. <i>Physical Review E</i> , 1998, 57, 3853-3860.	2.1	15
41	Reliability of genetic networks is evolvable. <i>Physical Review E</i> , 2008, 77, 060902.	2.1	15
42	A system-wide network reconstruction of gene regulation and metabolism in <i>Escherichia coli</i> . <i>PLoS Computational Biology</i> , 2019, 15, e1006962.	3.2	12
43	Self-Organized Criticality and Adaptation in Discrete Dynamical Networks. <i>Understanding Complex Systems</i> , 2009, , 73-106.	0.6	9
44	Morphogenesis by coupled regulatory networks: Reliable control of positional information and proportion regulation. <i>Journal of Theoretical Biology</i> , 2009, 261, 176-193.	1.7	8
45	Longevity of orders is related to the longevity of their constituent genera rather than genus richness. <i>Theory in Biosciences</i> , 2009, 128, 75-83.	1.4	8
46	Self-organized pattern formation and noise-induced control based on particle computations. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2005, 2005, L12001-L12001.	2.3	7
47	Reliability of regulatory networks and its evolution. <i>Journal of Theoretical Biology</i> , 2009, 258, 502-512.	1.7	7
48	Motif-based success scores in coauthorship networks are highly sensitive to author name disambiguation. <i>Physical Review E</i> , 2014, 90, 032811.	2.1	7
49	Self-organized criticality in neural networks from activity-based rewiring. <i>Physical Review E</i> , 2021, 103, 032304.	2.1	7
50	Critical excitation-inhibition balance in dense neural networks. <i>Physical Review E</i> , 2019, 100, 010301.	2.1	5
51	Repulsion in controversial debate drives public opinion into fifty-fifty stalemate. <i>Physical Review E</i> , 2019, 100, 042307.	2.1	5
52	Discrimination emerging through spontaneous symmetry breaking in a spatial prisoner's dilemma model with multiple labels. <i>Physical Review E</i> , 2019, 100, 062302.	2.1	5
53	Annealing schedule from population dynamics. <i>Physical Review E</i> , 1999, 59, 3942-3946.	2.1	3
54	Globalization in a nutshell. <i>Physical Review E</i> , 2018, 98, .	2.1	2

#	ARTICLE	IF	CITATIONS
55	A q-spin Potts model of markets: Gain–loss asymmetry in stock indices as an emergent phenomenon. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2022, 588, 126565.	2.6	2
56	Tools from Statistical Physics for the Analysis of Social Networks. <i>Understanding Complex Systems</i> , 2009, , 147-185.	0.6	1
57	Imitating the winner leads to discrimination in spatial prisoner’s dilemma model. <i>Scientific Reports</i> , 2019, 9, 3776.	3.3	1
58	Market Segmentation: The Network Approach. , 2008, , 19-36.		1