Marian Boguna

List of Publications by Year
in descending order

89 papers	9,160 citations	53794 45 h-index	42399 92 g-index
95 all docs	95 docs citations	95 times ranked	4852 citing authors

#	Article	IF	Citations
1	Hyperbolic geometry of complex networks. Physical Review E, 2010, 82, 036106.	2.1	612
2	Extracting the multiscale backbone of complex weighted networks. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6483-6488.	7.1	576
3	Generation of uncorrelated random scale-free networks. Physical Review E, 2005, 71, 027103.	2.1	574
4	Models of social networks based on social distance attachment. Physical Review E, 2004, 70, 056122.	2.1	549
5	Topology of the world trade web. Physical Review E, 2003, 68, 015101.	2.1	483
6	Absence of Epidemic Threshold in Scale-Free Networks with Degree Correlations. Physical Review Letters, 2003, 90, 028701.	7.8	436
7	Popularity versus similarity in growing networks. Nature, 2012, 489, 537-540.	27.8	432
8	Epidemic spreading in correlated complex networks. Physical Review E, 2002, 66, 047104.	2.1	395
9	Navigability of complex networks. Nature Physics, 2009, 5, 74-80.	16.7	342
10	Class of correlated random networks with hidden variables. Physical Review E, 2003, 68, 036112.	2.1	313
11	Sustaining the Internet with hyperbolic mapping. Nature Communications, 2010, 1, 62.	12.8	270
12	Epidemic spreading on interconnected networks. Physical Review E, 2012, 86, 026106.	2.1	270
13	Cut-offs and finite size effects in scale-free networks. European Physical Journal B, 2004, 38, 205-209.	1.5	268
14	Nature of the Epidemic Threshold for the Susceptible-Infected-Susceptible Dynamics in Networks. Physical Review Letters, 2013, 111, 068701.	7.8	212
15	Self-Similarity of Complex Networks and Hidden Metric Spaces. Physical Review Letters, 2008, 100, 078701.	7.8	205
16	Percolation and Epidemic Thresholds in Clustered Networks. Physical Review Letters, 2006, 97, 088701.	7.8	155
17	Patterns of dominant flows in the world trade web. Journal of Economic Interaction and Coordination, 2007, 2, 111-124.	0.7	151
18	Quantifying randomness in real networks. Nature Communications, 2015, 6, 8627.	12.8	134

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19	Measuring the Evolution of Contemporary Western Popular Music. Scientific Reports, 2012, 2, 521.	3.3	111
20	Generalized percolation in random directed networks. Physical Review E, 2005, 72, 016106.	2.1	102
21	Network Cosmology. Scientific Reports, 2012, 2, 793.	3.3	96
22	Greedy Forwarding in Dynamic Scale-Free Networks Embedded in Hyperbolic Metric Spaces. , 2010, , .		95
23	Clustering in complex networks. I. General formalism. Physical Review E, 2006, 74, 056114.	2.1	94
24	Langevin approach for the dynamics of the contact process on annealed scale-free networks. Physical Review E, 2009, 79, 036110.	2.1	94
25	Network geometry. Nature Reviews Physics, 2021, 3, 114-135.	26.6	93
26	Tuning clustering in random networks with arbitrary degree distributions. Physical Review E, 2005, 72, 036133.	2.1	90
27	Hidden geometric correlations in real multiplexÂnetworks. Nature Physics, 2016, 12, 1076-1081.	16.7	90
28	Curvature and temperature of complex networks. Physical Review E, 2009, 80, 035101.	2.1	87
29	Uncovering the hidden geometry behind metabolic networks. Molecular BioSystems, 2012, 8, 843.	2.9	84
30	Approximating PageRank from In-Degree. Lecture Notes in Computer Science, 2006, , 59-71.	1.3	82
31	Properties of resonant activation phenomena. Physical Review E, 1998, 57, 3990-4002.	2.1	80
32	Simulating non-Markovian stochastic processes. Physical Review E, 2014, 90, 042108.	2.1	79
33	Emergence of Soft Communities from Geometric Preferential Attachment. Scientific Reports, 2015, 5, 9421.	3.3	75
34	Navigating Ultrasmall Worlds in Ultrashort Time. Physical Review Letters, 2009, 102, 058701.	7.8	74
35	Clustering in complex networks. II. Percolation properties. Physical Review E, 2006, 74, 056115.	2.1	73
36	Diffusion-annihilation processes in complex networks. Physical Review E, 2005, 71, 056104.	2.1	71

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37	Topology and correlations in structured scale-free networks. Physical Review E, 2003, 67, 046111.	2.1	70
38	The geometric nature of weights in real complex networks. Nature Communications, 2017, 8, 14103.	12.8	65
39	Correlations in weighted networks. Physical Review E, 2006, 74, 055101.	2.1	61
40	The hidden hyperbolic geometry of international trade: World Trade Atlas 1870â€“2013. Scientific Reports, 2016, 6, 33441.	3.3	60
41	Long-Tailed Trapping Times and LÃ©vy Flights in a Self-Organized Critical Granular System. Physical Review Letters, 1997, 78, 4950-4953.	7.8	56
42	Multiscale unfolding of real networks by geometric renormalization. Nature Physics, 2018, 14, 583-589.	16.7	55
43	Decoding the structure of the WWW. ACM Transactions on the Web, 2007, 1, 10.	2.5	54
44	Deciphering the global organization of clustering in real complex networks. Scientific Reports, 2013, 3, 2517.	3.3	52
45	Double Percolation Phase Transition in Clustered Complex Networks. Physical Review X, 2014, 4, .	8.9	52
46	Equivalence between Non-Markovian and Markovian Dynamics in Epidemic Spreading Processes. Physical Review Letters, 2017, 118, 128301.	7.8	50
47	Mercator: uncovering faithful hyperbolic embeddings of complex networks. New Journal of Physics, 2019, 21, 123033.	2.9	47
48	Geometric Correlations Mitigate the Extreme Vulnerability of Multiplex Networks against Targeted Attacks. Physical Review Letters, 2017, 118, 218301.	7.8	39
49	Percolation in Self-Similar Networks. Physical Review Letters, 2011, 106, 048701.	7.8	36
50	Generalization of the persistent random walk to dimensions greater than 1. Physical Review E, 1998, 58, 6992-6998.	2.1	34
51	Weighted Configuration Model. AIP Conference Proceedings, 2005, , .	0.4	32
52	Residence time densities for non-Markovian systems. (I). The two-state system. Physica A: Statistical Mechanics and Its Applications, 2000, 282, 475-485.	2.6	29
53	Competition and Adaptation in an Internet Evolution Model. Physical Review Letters, 2005, 94, 038701.	7.8	28
54	Persistent random walk model for transport through thin slabs. Physical Review E, 1999, 59, 6517-6526.	2.1	27

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55	Greedy forwarding in scale-free networks embedded in hyperbolic metric spaces. Performance Evaluation Review, 2009, 37, 15-17.	0.6	26
56	Clustering of random scale-free networks. Physical Review E, 2012, 86, 026120.	2.1	24
57	Scaling up real networks by geometric branching growth. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	22
58	Soft Communities in Similarity Space. Journal of Statistical Physics, 2018, 173, 775-782.	1.2	22
59	On Local Estimations of PageRank: A Mean Field Approach. Internet Mathematics, 2007, 4, 245-266.	0.7	21
60	Small worlds and clustering in spatial networks. Physical Review Research, 2020, 2, .	3.6	20
61	Competition between global and local online social networks. Scientific Reports, 2016, 6, 25116.	3.3	18
62	Evolution of the Digital Society Reveals Balance between Viral and Mass Media Influence. Physical Review X, 2014, 4, .	8.9	15
63	The interconnected wealth of nations: Shock propagation on global trade-investment multiplex networks. Scientific Reports, 2019, 9, 13079.	3.3	14
64	Modeling the Internet. European Physical Journal B, 2006, 50, 249-254.	1.5	13
65	Digital Ecology: Coexistence and Domination among Interacting Networks. Scientific Reports, 2015, 5, 10268.	3.3	12
66	Correlations in Complex Networks. Complex Systems and Interdisciplinary Science, 2007, , 35-65.	0.2	11
67	Escaping the avalanche collapse in self-similar multiplexes. New Journal of Physics, 2015, 17, 053033.	2.9	10
68	Residence time densities for non-Markovian systems. (II). The N-state system. Physica A: Statistical Mechanics and Its Applications, 2000, 282, 486-494.	2.6	9
69	Lifespan method as a tool to study criticality in absorbing-state phase transitions. Physical Review E, 2015, 91, 052117.	2.1	9
70	Evaluation of rate constants for conformational transitions using single-molecule fluorescence spectroscopy. Chemical Physics Letters, 2001, 336, 321-324.	2.6	8
71	Complex architecture of primes and natural numbers. Physical Review E, 2014, 90, 022806.	2.1	8
72	Follow the leader: Herding behavior in heterogeneous populations. Physical Review E, 2015, 91, 052804.	2.1	8

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73	Regulation of burstiness by network-driven activation. Scientific Reports, 2015, 5, 9714.	3.3	8
74	Dynamical properties of the herding voter model with and without noise. Physical Review E, 2017, 96, 012310.	2.1	7
75	Memory-induced complex contagion in epidemic spreading. New Journal of Physics, 2019, 21, 033034.	2.9	7
76	Conditional dynamics driving financial markets. European Physical Journal B, 2004, 40, 347-352.	1.5	6
77	Occupancy of a single site by many random walkers. Physical Review E, 2000, 62, 3250-3256.	2.1	5
78	Rate Constants for Slow Conformational Transitions and Their Sampling Errors Using Single-Molecule Fluorescence Spectroscopy. Journal of Physical Chemistry A, 2001, 105, 4898-4901.	2.5	5
79	The asymptotic form of the probability density of sojourn times in randomly changing multistate systems. Physica A: Statistical Mechanics and Its Applications, 2000, 284, 13-22.	2.6	4
80	Continued fraction solution for the radiative transfer equation in three dimensions. Physical Review E, 2000, 61, 6248-6254.	2.1	4
81	Cosmological networks. New Journal of Physics, 2014, 16, 093031.	2.9	4
82	Isotropization time for non-Markovian CTRWs. Physica A: Statistical Mechanics and Its Applications, 1996, 230, 149-155.	2.6	3
83	Rate Constants from Uncorrelated Single-Molecule Data. Journal of Physical Chemistry B, 2001, 105, 6246-6250.	2.6	3
84	Reply to Slater: Extracting the backbone of multiscale networks. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, E67-E67.	7.1	3
85	A discrete formulation of the theory of sojourn times in a two-state system. Physica A: Statistical Mechanics and Its Applications, 2001, 289, 307-320.	2.6	2
86	A model for noise effects on fibre tract trajectories in diffusion tensor imaging: theory and simulations. New Journal of Physics, 2005, 7, 24-24.	2.9	2
87	Quantifying Human Engagement into Playful Activities. Scientific Reports, 2020, 10, 4145.	3.3	2
88	Reaction-diffusion Processes in Scale-free Networks. Bolyai Society Mathematical Studies, 2008, , 203-237.	0.3	2
89	M. Franceschetti, R. Meester: Random Networks forÂCommunication. From Statistical Physics toÂInformation Systems. Journal of Statistical Physics, 2009, 135, 585-586.	1.2	1