

# Sergey Dorogovtsev

## List of Publications by Year in descending order

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Version: 2024-02-01

101  
papers

11,525  
citations

94269

37  
h-index

40881

93  
g-index

103  
all docs

103  
docs citations

103  
times ranked

5182  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evolution of networks. <i>Advances in Physics</i> , 2002, 51, 1079-1187.	35.9	2,449
2	Critical phenomena in complex networks. <i>Reviews of Modern Physics</i> , 2008, 80, 1275-1335.	16.4	1,730
3	Structure of Growing Networks with Preferential Linking. <i>Physical Review Letters</i> , 2000, 85, 4633-4636.	2.9	1,038
4	k-Core Organization of Complex Networks. <i>Physical Review Letters</i> , 2006, 96, 040601.	2.9	525
5	Pseudofractal scale-free web. <i>Physical Review E</i> , 2002, 65, 066122.	0.8	410
6	Evolution of networks with aging of sites. <i>Physical Review E</i> , 2000, 62, 1842-1845.	0.8	354
7	Ising model on networks with an arbitrary distribution of connections. <i>Physical Review E</i> , 2002, 66, 016104.	0.8	270
8	Avalanche Collapse of Interdependent Networks. <i>Physical Review Letters</i> , 2012, 109, 248701.	2.9	263
9	Localization and Spreading of Diseases in Complex Networks. <i>Physical Review Letters</i> , 2012, 109, 128702.	2.9	243
10	Explosive Percolation Transition is Actually Continuous. <i>Physical Review Letters</i> , 2010, 105, 255701.	2.9	220
11	Size-dependent degree distribution of a scale-free growing network. <i>Physical Review E</i> , 2001, 63, 062101.	0.8	204
12	Self-organization of collaboration networks. <i>Physical Review E</i> , 2004, 70, 036106.	0.8	203
13	Language as an evolving word web. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2001, 268, 2603-2606.	1.2	202
14	Spectra of complex networks. <i>Physical Review E</i> , 2003, 68, 046109.	0.8	180
15	Scaling behaviour of developing and decaying networks. <i>Europhysics Letters</i> , 2000, 52, 33-39.	0.7	178
16	Scaling properties of scale-free evolving networks: â€œContinuous approach. <i>Physical Review E</i> , 2001, 63, 056125.	0.8	178
17	Giant strongly connected component of directed networks. <i>Physical Review E</i> , 2001, 64, 025101.	0.8	165
18	Effect of the accelerating growth of communications networks on their structure. <i>Physical Review E</i> , 2001, 63, 025101.	0.8	157

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19	$k$ -core (bootstrap) percolation on complex networks: Critical phenomena and nonlocal effects. Physical Review E, 2006, 73, 056101.	0.8	151
20	Bootstrap percolation on complex networks. Physical Review E, 2010, 82, 011103.	0.8	124
21	Multiple percolation transitions in a configuration model of a network of networks. Physical Review E, 2014, 89, 062814.	0.8	114
22	Dielectric relaxation in Ba-based layered perovskites. Applied Physics Letters, 2001, 79, 662-664.	1.5	94
23	Percolation on correlated networks. Physical Review E, 2008, 78, 051105.	0.8	92
24	Anomalous percolation properties of growing networks. Physical Review E, 2001, 64, 066110.	0.8	89
25	$k$ -core versus bootstrap percolation on multiplex networks. Physical Review E, 2014, 90, 032816.	0.8	89
26	Critical phenomena in networks. Physical Review E, 2003, 67, 026123.	0.8	88
27	Kuramoto model with frequency-degree correlations on complex networks. Physical Review E, 2013, 87, .	0.8	88
28	Heterogeneous $k$ -core versus bootstrap percolation on complex networks. Physical Review E, 2011, 83, 051134.	0.8	82
29	Biased imitation in coupled evolutionary games in interdependent networks. Scientific Reports, 2014, 4, 4436.	1.6	80
30	Laplacian spectra of, and random walks on, complex networks: Are scale-free architectures really important?. Physical Review E, 2008, 77, 036115.	0.8	78
31	Acoustical properties of disordered ferroelectrics. Ferroelectrics, 1990, 112, 27-44.	0.3	76
32	Exactly solvable small-world network. Europhysics Letters, 2000, 50, 1-7.	0.7	64
33	Potts model on complex networks. European Physical Journal B, 2004, 38, 177-182.	0.6	63
34	Weak percolation on multiplex networks. Physical Review E, 2014, 89, 042801.	0.8	53
35	Message passing theory for percolation models on multiplex networks with link overlap. Physical Review E, 2016, 94, 032301.	0.8	52
36	Clustering of correlated networks. Physical Review E, 2004, 69, 027104.	0.8	48

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37	Ranking scientists. Nature Physics, 2015, 11, 882-883.	6.5	42
38	Stochastic cellular automata model of neural networks. Physical Review E, 2010, 81, 061921.	0.8	39
39	Comment on "Breakdown of the Internet under Intentional Attack". Physical Review Letters, 2001, 87, 219801.	2.9	38
40	Phase Transition with the Berezinskii-Kosterlitz-Thouless Singularity in the Ising Model on a Growing Network. Physical Review Letters, 2005, 94, 200602.	2.9	33
41	Zero Pearson coefficient for strongly correlated growing trees. Physical Review E, 2010, 81, 031135.	0.8	33
42	Mutually connected component of networks of networks with replica nodes. Physical Review E, 2015, 91, 012804.	0.8	32
43	Degree-dependent intervertex separation in complex networks. Physical Review E, 2006, 73, 056122.	0.8	31
44	Critical Dynamics of the $k$ -Core Pruning Process. Physical Review X, 2015, 5, .	2.8	31
45	Correlated edge overlaps in multiplex networks. Physical Review E, 2016, 94, 012303.	0.8	31
46	Belief-propagation algorithm and the Ising model on networks with arbitrary distributions of motifs. Physical Review E, 2011, 84, 041144.	0.8	26
47	Magnetic-Flux Penetration and Critical Current in Long Periodically Modulated Josephson Junction. Europhysics Letters, 1994, 25, 693-698.	0.7	25
48	Solution of the explosive percolation quest: Scaling functions and critical exponents. Physical Review E, 2014, 90, 022145.	0.8	25
49	Multifractal properties of growing networks. Europhysics Letters, 2002, 57, 334-340.	0.7	23
50	Complex networks created by aggregation. Physical Review E, 2005, 71, 036107.	0.8	23
51	Scale-free networks with exponent one. Physical Review E, 2016, 94, 022302.	0.8	22
52	Renormalization group for evolving networks. Physical Review E, 2003, 67, 045102.	0.8	21
53	Mapping the Structure of Directed Networks: Beyond the Bow-Tie Diagram. Physical Review Letters, 2017, 118, 078301.	2.9	21
54	Organization of Complex Networks without Multiple Connections. Physical Review Letters, 2005, 95, 195701.	2.9	20

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55	Berezinskii-Kosterlitz-Thouless-like transition in the Potts model on an inhomogeneous annealed network. <i>Physical Review E</i> , 2007, 75, 041112.	0.8	20
56	Organization of modular networks. <i>Physical Review E</i> , 2008, 78, 056106.	0.8	20
57	Transition from small to large world in growing networks. <i>Europhysics Letters</i> , 2008, 81, 30004.	0.7	17
58	Critical exponents of the explosive percolation transition. <i>Physical Review E</i> , 2014, 89, 042148.	0.8	17
59	Complex network view of evolving manifolds. <i>Physical Review E</i> , 2018, 97, 032316.	0.8	17
60	Bak-Sneppen model near zero dimension. <i>Physical Review E</i> , 2000, 62, 295-298.	0.8	14
61	Evolving Weighted Scale-Free Networks. <i>AIP Conference Proceedings</i> , 2005, , .	0.3	14
62	Metastable localization of diseases in complex networks. <i>Physical Review E</i> , 2016, 94, 062305.	0.8	13
63	Generalization of core percolation on complex networks. <i>Physical Review E</i> , 2019, 99, 022312.	0.8	13
64	Core organization of directed complex networks. <i>Physical Review E</i> , 2013, 87, .	0.8	12
65	Correlations in interacting systems with a network topology. <i>Physical Review E</i> , 2005, 72, 066130.	0.8	10
66	Anomalous behavior of the contact process with aging. <i>Physical Review E</i> , 2001, 63, 046107.	0.8	9
67	Giant components in directed multiplex networks. <i>Physical Review E</i> , 2014, 90, 052809.	0.8	9
68	Nonbacktracking expansion of finite graphs. <i>Physical Review E</i> , 2017, 95, 042322.	0.8	9
69	Finding the Optimal Nets for Self-Folding Kirigami. <i>Physical Review Letters</i> , 2018, 120, 188001.	2.9	9
70	The critical behaviour of systems with correlated defects. <i>Journal of Physics A</i> , 1984, 17, L677-L679.	1.6	8
71	How Sandpiles Spill: Sandpile Problem in a Thick Flow Regime. <i>Physical Review Letters</i> , 1999, 83, 2946-2949.	2.9	8
72	Avalanches in Multiplex and Interdependent Networks. <i>Understanding Complex Systems</i> , 2014, , 37-52.	0.3	8

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73	Inverting the Achlioptas rule for explosive percolation. <i>Physical Review E</i> , 2015, 91, 042130.	0.8	8
74	Avalanche mixing of granular solids. <i>Europhysics Letters</i> , 1998, 41, 25-30.	0.7	7
75	Cycles and clustering in multiplex networks. <i>Physical Review E</i> , 2016, 94, 062308.	0.8	7
76	Effect of Initial Configuration of Weights on Training and Function of Artificial Neural Networks. <i>Mathematics</i> , 2021, 9, 2246.	1.1	7
77	k-Core Organization in Complex Networks. <i>Springer Optimization and Its Applications</i> , 2012, , 229-252.	0.6	7
78	Theory of interacting Josephson junctions (Josephson lattices). <i>Journal of Physics Condensed Matter</i> , 1990, 2, 6789-6800.	0.7	6
79	Acoustic and dielectric relaxation in ferroelectrics with diffuse phase transition. <i>Ferroelectrics</i> , 1993, 143, 49-57.	0.3	6
80	A Unified Approach to Percolation Processes on Multiplex Networks. <i>Understanding Complex Systems</i> , 2016, , 101-123.	0.3	6
81	Exotic critical behavior of weak multiplex percolation. <i>Physical Review E</i> , 2020, 102, 032301.	0.8	6
82	Magnetic flux penetration into a non-uniform Josephson junction. <i>Journal of Physics Condensed Matter</i> , 1992, 4, 1791-1798.	0.7	5
83	Solution of the explosive percolation quest. II. Infinite-order transition produced by the initial distributions of clusters. <i>Physical Review E</i> , 2015, 91, 032140.	0.8	5
84	Evolution of a sandpile in a thick-flow regime. <i>Physical Review E</i> , 2000, 61, 2909-2919.	0.8	4
85	Mesoscopics and fluctuations in networks. <i>Physical Review E</i> , 2003, 67, 037103.	0.8	4
86	Randomly directed bond percolation: a position-space renormalisation group approach. <i>Journal of Physics C: Solid State Physics</i> , 1982, 15, L889-L892.	1.5	3
87	Approximating nonbacktracking centrality and localization phenomena in large networks. <i>Physical Review E</i> , 2021, 104, 054306.	0.8	3
88	CRITICAL STATE IN DENSE JOSEPHSON STRUCTURES. <i>International Journal of Modern Physics B</i> , 1992, 06, 3031-3041.	1.0	2
89	Kinetics of avalanche mixing of granular materials. <i>Journal of Experimental and Theoretical Physics</i> , 1997, 85, 141-151.	0.2	2
90	Choosing among alternative histories of a tree. <i>Physical Review E</i> , 2020, 102, 032304.	0.8	1

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91	Complex Distributions Emerging in Filtering and Compression. Physical Review X, 2020, 10, .	2.8	1
92	Hidden transition in multiplex networks. Scientific Reports, 2022, 12, 3973.	1.6	1
93	Initialization of the holographic current constant component by recording pattern oscillation in photorefractive crystals. Optics Letters, 1993, 18, 1760.	1.7	0
94	Modeling of the critical state in the granular high- $T_c$ superconductors. Ferroelectrics, 1993, 144, 71-76.	0.3	0
95	Effect of Pumping of a Constant Magnetic Field by an Oscillating Applied Magnetic Field into a Type-II Superconductor. Europhysics Letters, 1993, 24, 483-488.	0.7	0
96	Influence of the ferroelectric substrate on the ultrathin high- $T_c$ superconductor films. Ferroelectrics, 1993, 144, 115-117.	0.3	0
97	Emergence of scale-free networks from optimization process. Journal of Physics: Conference Series, 2013, 410, 012094.	0.3	0
98	Filtering Statistics on Networks. Entropy, 2020, 22, 1149.	1.1	0
99	Growth Models for Networks. , 2012, , 1488-1498.		0
100	Characteristics of the Explosive Percolation Transition. Springer Proceedings in Mathematics and Statistics, 2014, , 17-24.	0.1	0
101	Growth Models for Networks. , 2015, , 1-18.		0