Albert Barabasi

List of Publications by Year
in descending order

146 papers	111,990 citations	7069 78 h-index	9073 144 g-index
158 all docs	158 docs citations	158 times ranked	62431 citing authors

#	Article	IF	Citations
1	Quantifying NFT-driven networks in crypto art. Scientific Reports, 2022, 12, 2769.	1.6	54
2	Dynamics of ranking. Nature Communications, 2022, 13, 1646.	5.8	29
3	Nutrient concentrations in food display universal behaviour. Nature Food, 2022, 3, 375-382.	6.2	12
4	Isotopy and energy of physical networks. Nature Physics, 2021, 17, 216-222.	6.5	13
5	Network medicine framework shows that proximity of polyphenol targets and disease proteins predicts therapeutic effects of polyphenols. Nature Food, 2021, 2, 143-155.	6.2	57
6	Network medicine framework for identifying drug-repurposing opportunities for COVID-19. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	245
7	Science of science. Bibliosfera, 2021, , 25-42.	0.0	1
8	Synthetic ablations in the C. elegans nervous system. Network Neuroscience, 2020, 4, 200-216.	1.4	5
9	The unmapped chemical complexity of our diet. Nature Food, 2020, 1, 33-37.	6.2	177
10	A Genetic Model of the Connectome. Neuron, 2020, 105, 435-445.e5.	3.8	35
11	A systematic comprehensive longitudinal evaluation of dietary factors associated with acute myocardial infarction and fatal coronary heart disease. Nature Communications, 2020, 11, 6074.	5.8	37
12	Exploring food contents in scientific literature with FoodMine. Scientific Reports, 2020, 10, 16191.	1.6	18
13	A global network for network medicine. Npj Systems Biology and Applications, 2020, 6, 29.	1.4	19
14	Uncovering the genetic blueprint of the <i>C. elegans</i> nervous system. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 33570-33577.	3.3	23
15	Historical comparison of gender inequality in scientific careers across countries and disciplines. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 4609-4616.	3.3	474
16	The exposome and health: Where chemistry meets biology. Science, 2020, 367, 392-396.	6.0	499
17	The Network Medicine Imperative and the Need for an International Network Medicine Consortium. American Journal of Medicine, 2020, 133, e451-e454.	0.6	11
18	Discovering the genes mediating the interactions between chronic respiratory diseases in the human interactome. Nature Communications, 2020, 11, 811.	5.8	25

#	Article	IF	Citations
19	Network Medicine Framework for Identifying Drug Repurposing Opportunities for COVID-19. ArXiv Org, 2020, , .	1.2	4
20	Success in books: predicting book sales before publication. EPJ Data Science, 2019, 8, .	1.5	8
21	Natureâ€™s reach: narrow work has broad impact. Nature, 2019, 575, 32-34.	13.7	46
22	Network-based prediction of protein interactions. Nature Communications, 2019, 10, 1240.	5.8	293
23	Network-based prediction of drug combinations. Nature Communications, 2019, 10, 1197.	5.8	437
24	Uremic Toxin Indoxyl Sulfate Promotes Proinflammatory Macrophage Activation Via the Interplay of OATP2B1 and Dll4-Notch Signaling. Circulation, 2019, 139, 78-96.	1.6	126
25	Taking census of physics. Nature Reviews Physics, 2019, 1, 89-97.	11.9	44
26	The universal decay of collective memory and attention. Nature Human Behaviour, 2019, 3, 82-91.	6.2	86
27	Science of science. Science, 2018, 359, .	6.0	701
28	Success in books: a big data approach to bestsellers. EPJ Data Science, 2018, 7, .	1.5	27
29	Quantifying reputation and success in art. Science, 2018, 362, 825-829.	6.0	106
30	A structural transition in physical networks. Nature, 2018, 563, 676-680.	13.7	37
31	The chaperone effect in scientific publishing. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12603-12607.	3.3	84
32	Functional structures of US state governments. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11748-11753.	3.3	16
33	<i>Caenorhabditis elegans</i> and the network control frameworkâ€"FAQs. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170372.	1.8	23
34	Controllability in an islet specific regulatory network identifies the transcriptional factor NFATC4, which regulates Type 2 Diabetes associated genes. Npj Systems Biology and Applications, 2018, 4, 25.	1.4	25
35	Network-based approach to prediction and population-based validation of in silico drug repurposing. Nature Communications, 2018, 9, 2691.	5.8	351
36	Predicting perturbation patterns from the topology of biological networks. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E6375-E6383.	3.3	198

#	Article	IF	Citations
37	Trade-offs between driving nodes and time-to-control in complex networks. Scientific Reports, 2017, 7, 39978.	1.6	20
38	Integrating personalized gene expression profiles into predictive disease-associated gene pools. Npj Systems Biology and Applications, 2017, 3, 10.	1.4	54
39	Academia under fire in Hungary. Science, 2017, 356, 563-563.	6.0	2
40	Epigenomic and transcriptomic approaches in the post-genomic era: path to novel targets for diagnosis and therapy of the ischaemic heart? Position Paper of the European Society of Cardiology Working Group on Cellular Biology of the Heart. Cardiovascular Research, 2017, 113, 725-736.	1.8	114
41	Network control principles predict neuron function in the Caenorhabditis elegans connectome. Nature, 2017, 550, 519-523.	13.7	279
42	Recordings of Caenorhabditis elegans locomotor behaviour following targeted ablation of single motorneurons. Scientific Data, 2017, 4, 170156.	2.4	14
43	The elegant law that governs us all Scale <i>Geoffrey West</i> Penguin Press, 2017. 490 pp.. Science, 2017, 357, 138-138.	6.0	6
44	The fundamental advantages of temporal networks. Science, 2017, 358, 1042-1046.	6.0	287
45	Network Medicine. , 2017, , .		55
46	From comorbidities of chronic obstructive pulmonary disease to identification of shared molecular mechanisms by data integration. BMC Bioinformatics, 2016, 17, 441.	1.2	20
47	An interâ€species proteinâ€“protein interaction network across vast evolutionary distance. Molecular Systems Biology, 2016, 12, 865.	3.2	42
48	Control of fluxes in metabolic networks. Genome Research, 2016, 26, 956-968.	2.4	40
49	Controllability analysis of the directed human protein interaction network identifies disease genes and drug targets. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4976-4981.	3.3	249
50	Control principles of complex systems. Reviews of Modern Physics, 2016, 88, .	16.4	452
51	Controllability of multiplex, multi-time-scale networks. Physical Review E, 2016, 94, 032316.	0.8	53
52	Tissue Specificity of Human Disease Module. Scientific Reports, 2016, 6, 35241.	1.6	99
53	PARP9 and PARP14 cross-regulate macrophage activation via STAT1 ADP-ribosylation. Nature Communications, 2016, 7, 12849.	5.8	214
54	Endophenotype Network Models: Common Core of Complex Diseases. Scientific Reports, 2016, 6, 27414.	1.6	72

#	Article	IF	Citations
55	Network-based in silico drug efficacy screening. Nature Communications, 2016, 7, 10331.	5.8	394
56	Quantifying the evolution of individual scientific impact. Science, 2016, 354, .	6.0	390
57	Scaling identity connects human mobility and social interactions. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7047-7052.	3.3	75
58	Universal resilience patterns in complex networks. Nature, 2016, 530, 307-312.	13.7	754
59	Constructing minimal models for complex system dynamics. Nature Communications, 2015, 6, 7186.	5.8	69
60	Uncovering disease-disease relationships through the incomplete interactome. Science, 2015, 347, 1257601.	6.0	1,219
61	A disease module in the interactome explains disease heterogeneity, drug response and captures novel pathways and genes in asthma. Human Molecular Genetics, 2015, 24, 3005-3020.	1.4	162
62	A DIseAse MOdule Detection (DIAMOnD) Algorithm Derived from a Systematic Analysis of Connectivity Patterns of Disease Proteins in the Human Interactome. PLoS Computational Biology, 2015, 11, e1004120.	1.5	310
63	Destruction perfected. Nature, 2015, 524, 38-39.	13.7	36
64	Quantifying Information Flow During Emergencies. Scientific Reports, 2015, 4, 3997.	1.6	46
65	Widespread Macromolecular Interaction Perturbations in Human Genetic Disorders. Cell, 2015, 161, 647-660.	13.5	482
66	Response to Letter of Correspondence â€“ Bastiaens et al.. Nature Biotechnology, 2015, 33, 339-342.	9.4	2
67	A century of physics. Nature Physics, 2015, 11, 791-796.	6.5	117
68	Spectrum of controlling and observing complexÂnetworks. Nature Physics, 2015, 11, 779-786.	6.5	212
69	Modules, networks and systems medicine for understanding disease and aiding diagnosis. Genome Medicine, 2014, 6, 82.	3.6	169
70	Target control of complex networks. Nature Communications, 2014, 5, 5415.	5.8	311
71	Response to Comment on â€œQuantifying long-term scientific impactâ€. Science, 2014, 345, 149-149.	6.0	6
72	A Proteome-Scale Map of the Human Interactome Network. Cell, 2014, 159, 1212-1226.	13.5	1,199

#	Article	IF	Citations
73	Collective credit allocation in science. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12325-12330.	3.3	155
74	Human symptomsâ€“disease network. Nature Communications, 2014, 5, 4212.	5.8	557
75	A network framework of cultural history. Science, 2014, 345, 558-562.	6.0	151
76	A genetic epidemiology approach to cyber-security. Scientific Reports, 2014, 4, 5659.	1.6	18
77	Career on the Move: Geography, Stratification and Scientific Impact. Scientific Reports, 2014, 4, 4770.	1.6	128
78	Understanding the spread of malicious mobile-phone programs and their damage potential. International Journal of Information Security, 2013, 12, 383-392.	2.3	18
79	Quantifying Long-Term Scientific Impact. Science, 2013, 342, 127-132.	6.0	604
80	Universality in network dynamics. Nature Physics, 2013, 9, 673-681.	6.5	253
81	Observability of complex systems. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2460-2465.	3.3	407
82	Network science. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120375.	1.6	332
83	Viral Perturbations of Host Networks Reflect Disease Etiology. PLoS Computational Biology, 2012, 8, e1002531.	1.5	102
84	Control Centrality and Hierarchical Structure in Complex Networks. PLoS ONE, 2012, 7, e44459.	1.1	242
85	Interactome Networks and Human Disease. Cell, 2011, 144, 986-998.	13.5	1,543
86	Flavor network and the principles of food pairing. Scientific Reports, 2011, 1, 196.	1.6	300
87	Network medicine: a network-based approach to human disease. Nature Reviews Genetics, 2011, 12, 56-68.	7.7	3,987
88	Controllability of complex networks. Nature, 2011, 473, 167-173.	13.7	2,633
89	Liu et al. reply. Nature, 2011, 478, E4-E5.	13.7	17
90	Limits of Predictability in Human Mobility. Science, 2010, 327, 1018-1021.	6.0	2,561

#	Article	IF	Citations
91	Time to CARE: a collaborative engine for practical disease prediction. Data Mining and Knowledge Discovery, 2010, 20, 388-415.	2.4	113
92	Modelling the scaling properties of human mobility. Nature Physics, 2010, 6, 818-823.	6.5	931
93	An empirical framework for binary interactome mapping. Nature Methods, 2009, 6, 83-90.	9.0	800
94	Scale-Free Networks: A Decade and Beyond. Science, 2009, 325, 412-413.	6.0	1,644
95	Impact of the solvent capacity constraint on E. coli metabolism. BMC Systems Biology, 2008, 2, 7.	3.0	106
96	SCALE-FREE NETWORKS IN BIOLOGY. Complex Systems and Interdisciplinary Science, 2007, , 1-19.	0.2	6
97	COMMUNITY DYNAMICS IN SOCIAL NETWORKS. Fluctuation and Noise Letters, 2007, 07, L273-L287.	1.0	11
98	The human disease network. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 8685-8690.	3.3	2,924
99	Quantifying social group evolution. Nature, 2007, 446, 664-667.	13.7	1,405
100	Mechanisms and models of human dynamics (Reply). Nature, 2006, 441, E5-E6.	13.7	2
101	Taming complexity. Nature Physics, 2005, 1, 68-70.	6.5	68
102	The origin of bursts and heavy tails in human dynamics. Nature, 2005, 435, 207-211.	13.7	1,896
103	The Activity Reaction Core and Plasticity of Metabolic Networks. PLoS Computational Biology, 2005, 1, e68.	1.5	121
104	SOCIOLOGY: Network Theory-the Emergence of the Creative Enterprise. Science, 2005, 308, 639-641.	6.0	121
105	Emergence of scaling in complex networks. , 2004, , 69-84.		19
106	Network biology: understanding the cell's functional organization. Nature Reviews Genetics, 2004, 5, 101-113.	7.7	6,726
107	Global organization of metabolic fluxes in the bacterium Escherichia coli. Nature, 2004, 427, 839-843.	13.7	607
108	Hot spots and universality in network dynamics. European Physical Journal B, 2004, 38, 169-175.	0.6	21

#	Article	IF	Citations
109	Nanoscale wire formation on sputter-eroded surfaces. Applied Physics Letters, 2002, 81, 3654-3656.	1.5	14
110	Statistical mechanics of complex networks. Reviews of Modern Physics, 2002, 74, 47-97.	16.4	16,492
111	Bose-Einstein Condensation in Complex Networks. Physical Review Letters, 2001, 86, 5632-5635.	2.9	593
112	Lethality and centrality in protein networks. Nature, 2001, 411, 41-42.	13.7	4,579
113	Parasitic computing. Nature, 2001, 412, 894-897.	13.7	56
114	Modeling relaxation and jamming in granular media. Physical Review E, 2001, 64, 051303.	0.8	11
115	Quantum dot and hole formation in sputter erosion. Applied Physics Letters, 2001, 78, 805-807.	1.5	124
116	Spatial ordering of stacked quantum dots. Applied Physics Letters, 2001, 78, 984-986.	1.5	27
117	Granular drag on a discrete object: Shape effects on jamming. Physical Review E, 2001, 64, 061303.	0.8	130
118	The sound of many hands clapping. Nature, 2000, 403, 849-850.	13.7	596
119	Error and attack tolerance of complex networks. Nature, 2000, 406, 378-382.	13.7	7,006
120	Across the boundaries. Nature, 2000, 407, 297-297.	13.7	0
121	The large-scale organization of metabolic networks. Nature, 2000, 407, 651-654.	13.7	4,262
122	An Experimental Study of the Fluctuations in Granular Drag. Materials Research Society Symposia Proceedings, 2000, 627, 1.	0.1	0
123	Jamming and Fluctuations in Granular Drag. Physical Review Letters, 2000, 84, 5122-5125.	2.9	139
124	Dynamics of Ripple Formation in Sputter Erosion: Nonlinear Phenomena. Physical Review Letters, 1999, 83, 3486-3489.	2.9	184
125	Reducing vortex density in superconductors using the â€˜ratchet effectâ€™. Nature, 1999, 400, 337-340.	13.7	246
126	Diameter of the World-Wide Web. Nature, 1999, 401, 130-131.	13.7	3,527

#	Article	IF	Citations
127	Liquid-induced transitions in granular media. Physical Review E, 1999, 60, 5823-5826.	0.8	58
128	Shape Transition in Growth of Strained Islands. Physical Review Letters, 1999, 82, 2753-2756.	2.9	195
129	Emergence of Scaling in Random Networks. Science, 1999, 286, 509-512.	6.0	28,383
130	Collective Motion of Self-Propelled Particles: Kinetic Phase Transition in One Dimension. Physical Review Letters, 1999, 82, 209-212.	2.9	220
131	Nonlinear Ripple Formation in Sputter Erosion. Materials Research Society Symposia Proceedings, 1999, 585, 297.	0.1	0
132	Ratchet Effect in Surface Electromigration: Smoothing Surfaces by an ac Field. Physical Review Letters, 1998, 80, 1473-1476.	2.9	93
133	Equilibrium phase diagrams for dislocation free self-assembled quantum dots. Applied Physics Letters, 1998, 72, 2102-2104.	1.5	63
134	Effect of surface roughness on the secondary ion yield in ion sputtering. Applied Physics Letters, 1998, 73, 1445-1447.	1.5	11
135	Dynamics of Ripening of Self-Assembled II-VI Semiconductor Quantum Dots. Physical Review Letters, 1998, 81, 3479-3482.	2.9	87
136	Effect of surface roughness on the secondary ion yield in ion sputtering. Applied Physics Letters, 1998, 73, 2209-2211.	1.5	3
137	Spatial ordering of islands grown on patterned surfaces. Applied Physics Letters, 1998, 73, 2651-2653.	1.5	44
138	Secondary ion yield changes on rippled interfaces. Applied Physics Letters, 1998, 72, 906-908.	1.5	21
139	Low Temperature Ripple Formation: Ion-Induced Effective Surface Diffusion in Ion Sputtering. Materials Research Society Symposia Proceedings, 1998, 540, 249.	0.1	1
140	Self-organized superlattice formation in IIâ€"IV and IIIâ€"V semiconductors. Applied Physics Letters, 1997, 70, 764-766.	1.5	24
141	Self-assembled island formation in heteroepitaxial growth. Applied Physics Letters, 1997, 70, 2565-2567.	1.5	244
142	Ion-induced effective surface diffusion in ion sputtering. Applied Physics Letters, 1997, 71, 2800-2802.	1.5	228
143	What keeps sandcastles standing?. Nature, 1997, 387, 765-765.	13.7	273
144	A FRACTAL MODEL FOR THE FIRST STAGES OF THIN FILM GROWTH. Fractals, 1996, 04, 321-329.	1.8	11

#	Article	IF	Citations
145	Fractal and Non-Fractal Surfaces in Ion Sputtering. Materials Research Society Symposia Proceedings, 1995, 407, 259.	0.1	0
146	Why are computer simulations of growth useful?. Materials Research Society Symposia Proceedings, 1995, 407, 391.	0.1	2