Luis A Nunes Amaral

List of Publications by Year
in descending order

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70	17,194	57758	106344
papers	citations	44 h-index	65 g-index

71	71	71	13260
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Functional cartography of complex metabolic networks. Nature, 2005, 433, 895-900.	27.8	3,086
2	Multifractality in human heartbeat dynamics. Nature, 1999, 399, 461-465.	27.8	1,474
3	The web of human sexual contacts. Nature, 2001, 411, 907-908.	27.8	1,384
4	Universal and Nonuniversal Properties of Cross Correlations in Financial Time Series. Physical Review Letters, 1999, 83, 1471-1474.	7.8	913
5	Team Assembly Mechanisms Determine Collaboration Network Structure and Team Performance. Science, 2005, 308, 697-702.	12.6	899
6	Random matrix approach to cross correlations in financial data. Physical Review E, 2002, 65, 066126.	2.1	758
7	Scaling of the distribution of fluctuations of financial market indices. Physical Review E, 1999, 60, 5305-5316.	2.1	745
8	Modularity from fluctuations in random graphs and complex networks. Physical Review E, 2004, 70, 025101.	2.1	680
9	Cartography of complex networks: modules and universal roles. Journal of Statistical Mechanics: Theory and Experiment, 2005, 2005, P02001.	2.3	517
10	Scaling of the distribution of price fluctuations of individual companies. Physical Review E, 1999, 60, 6519-6529.	2.1	466
11	Extracting the hierarchical organization of complex systems. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 15224-15229.	7.1	465
12	From 1/f noise to multifractal cascades in heartbeat dynamics. Chaos, 2001, 11, 641-652.	2.5	431
13	Module identification in bipartite and directed networks. Physical Review E, 2007, 76, 036102.	2.1	324
14	Behavioral-Independent Features of Complex Heartbeat Dynamics. Physical Review Letters, 2001, 86, 6026-6029.	7.8	305
15	Small-World Networks: Evidence for a Crossover Picture. Physical Review Letters, 1999, 82, 3180-3183.	7.8	254
16	Robust Patterns in Food Web Structure. Physical Review Letters, 2002, 88, 228102.	7.8	245
17	Quantifying the Performance of Individual Players in a Team Activity. PLoS ONE, 2010, 5, e10937.	2.5	236
18	Power Law Scaling for a System of Interacting Units with Complex Internal Structure. Physical Review Letters, 1998, 80, 1385-1388.	7.8	231

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19	Universal Features in the Growth Dynamics of Complex Organizations. Physical Review Letters, 1998, 81, 3275-3278.	7.8	225
20	Scale Invariance in the Nonstationarity of Human Heart Rate. Physical Review Letters, 2001, 87, 168105.	7.8	222
21	Sexual networks: implications for the transmission of sexually transmitted infections. Microbes and Infection, 2003, 5, 189-196.	1.9	217
22	Economic fluctuations and anomalous diffusion. Physical Review E, 2000, 62, R3023-R3026.	2.1	210
23	Large-scale investigation of the reasons why potentially important genes are ignored. PLoS Biology, 2018, 16, e2006643.	5.6	188
24	Duality between Time Series and Networks. PLoS ONE, 2011, 6, e23378.	2.5	180
25	The Possible Role of Resource Requirements and Academic Career-Choice Risk on Gender Differences in Publication Rate and Impact. PLoS ONE, 2012, 7, e51332.	2.5	179
26	Truncation of Power Law Behavior in â€œScale-Freeâ€•Network Models due to Information Filtering. Physical Review Letters, 2002, 88, 138701.	7.8	172
27	Evidence for the existence of a robust pattern of prey selection in food webs. Proceedings of the Royal Society B: Biological Sciences, 2007, 274, 1931-1940.	2.6	167
28	On Universality in Human Correspondence Activity. Science, 2009, 325, 1696-1700.	12.6	167
29	Similarities between the growth dynamics of university research and of competitive economic activities. Nature, 1999, 400, 433-437.	27.8	147
30	Levels of complexity in scale-invariant neural signals. Physical Review E, 2009, 79, 041920.	2.1	143
31	Effectiveness of Journal Ranking Schemes as a Tool for Locating Information. PLoS ONE, 2008, 3, e1683.	2.5	134
32	Scale-Independent Measures and Pathologic Cardiac Dynamics. Physical Review Letters, 1998, 81, 2388-2391.	7.8	126
33	A robust data-driven approach identifies four personality types across four large data sets. Nature Human Behaviour, 2018, 2, 735-742.	12.0	123
34	A robust measure of food web intervality. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 19015-19020.	7.1	116
35	Universality classes for interface growth with quenched disorder. Physical Review Letters, 1994, 73, 62-65.	7.8	105
36	Differences in Collaboration Patterns across Discipline, Career Stage, and Gender. PLoS Biology, 2016, 14, e1002573.	5.6	100

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37	Scaling properties of driven interfaces in disordered media. Physical Review E, 1995, 52, 4087-4104.	2.1	82
38	Statistical validation of a global model for the distribution of the ultimate number of citations accrued by papers published in a scientific journal. Journal of the Association for Information Science and Technology, 2010, 61, 1377-1385.	2.6	79
39	Different scaling behaviors of commodity spot and future prices. Physical Review E, 2002, 66, 045103.	2.1	60
40	Canalizing Kauffman Networks: Nonergodicity and Its Effect on Their Critical Behavior. Physical Review Letters, 2005, 94, 218702.	7.8	59
41	The role of body mass in diet contiguity and food-web structure. Journal of Animal Ecology, 2011, 80, 632-639.	2.8	57
42	Analytical solution of a model for complex food webs. Physical Review E, 2002, 65, 030901.	2.1	54
43	Heuristic segmentation of a nonstationary time series. Physical Review E, 2004, 69, 021108.	2.1	47
44	Asymmetrical singularities in real-world signals. Physical Review E, 2003, 68, 065204.	2.1	46
45	High-Reproducibility and High-Accuracy Method for Automated Topic Classification. Physical Review X, 2015, 5, .	8.9	45
46	A truer measure of our ignorance. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6795-6796.	7.1	43
47	Lies, damned lies and statistics. Nature Physics, 2006, 2, 75-76.	16.7	40
48	Extremum Statistics in Scale-Free Network Models. Physical Review Letters, 2002, 89, 268703.	7.8	36
49	Price dynamics in political prediction markets. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 679-684.	7.1	34
50	Cross-evaluation of metrics to estimate the significance of creative works. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1281-1286.	7.1	30
51	Scaling phenomena in the growth dynamics of scientific output. Journal of the Association for Information Science and Technology, 2005, 56, 893-902.	2.6	24
52	The Distribution of the Asymptotic Number of Citations to Sets of Publications by a Researcher or from an Academic Department Are Consistent with a Discrete Lognormal Model. PLoS ONE, 2015, 10, e0143108.	2.5	23
53	APPLICATION OF RANDOM MATRIX THEORY TO STUDY CROSS-CORRELATIONS OF STOCK PRICES. International Journal of Theoretical and Applied Finance, 2000, 03, 399-403.	0.5	14
54	COVID-19 research risks ignoring important host genes due to pre-established research patterns. ELife, 2020, 9, .	6.0	14

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55	Centrality anomalies in complex networks as a result of model over-simplification. New Journal of Physics, 2020, 22, 013043.	2.9	13
56	Quantifying economic fluctuations. Physica A: Statistical Mechanics and Its Applications, 2001, 302, 126-137.	2.6	11
57	Comment on â€œKinetic Roughening in Slow Combustion of Paperâ€• Physical Review Letters, 1998, 80, 5706-5706.	7.8	9
58	ECONOPHYSICS: WHAT CAN PHYSICISTS CONTRIBUTE TO ECONOMICS?. International Journal of Theoretical and Applied Finance, 2000, 03, 335-346.	0.5	9
59	The characteristics of early-stage research into human genes are substantially different from subsequent research. PLoS Biology, 2022, 20, e3001520.	5.6	5
60	Novel Collaborations within Experienced Teams Lead to Best Research Outcomes. Annals of Vascular Surgery, 2005, 19, 753-754.	0.9	3
61	Reply to: Four personality types may be neither robust nor exhaustive. Nature Human Behaviour, 2019, 3, 1047-1048.	12.0	3
62	Long-term patterns of gender imbalance in an industry without ability or level of interest differences. PLoS ONE, 2020, 15, e0229662.	2.5	3
63	Phenomenological Model for Predicting the Catabolic Potential of an Arbitrary Nutrient. PLoS Computational Biology, 2012, 8, e1002762.	3.2	2
64	Reply to â€œFar away from the lamppostâ€• PLoS Biology, 2018, 16, e3000075.	5.6	2
65	A Solution to the Challenge of Optimization on "Golf-Course"-Like Fitness Landscapes. PLoS ONE, 2013, 8, e78401.	2.5	2
66	Spreader events and the limitations of projected networks for capturing dynamics on multipartite networks. Physical Review E, 2021, 103, 022320.	2.1	1
67	Statistical Properties of Commodity Price Fluctuations. , 2004, , 192-197.		1
68	Quantifying Empirical Economic Fluctuations using the Organizing Principles of Scale Invariance and Universality. , 2002, , 3-11.		0
69	The first step is recognizing there is a problem: a methodology for adjusting for variability in disease severity when estimating clinician performance. BMC Medical Research Methodology, 2022, 22, 69.	3.1	0
70	A cautionary tale from the machine scientist. Nature Machine Intelligence, 0, , .	16.0	0