

Luis A Nunes Amaral

List of Publications by Year in descending order

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Version: 2024-02-01

70
papers

17,194
citations

57758

44
h-index

106344

65
g-index

71
all docs

71
docs citations

71
times ranked

13260
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | The characteristics of early-stage research into human genes are substantially different from subsequent research. PLoS Biology, 2022, 20, e3001520. | 5.6 | 5 |
| 2 | 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 |
| 3 | Spreader events and the limitations of projected networks for capturing dynamics on multipartite networks. Physical Review E, 2021, 103, 022320. | 2.1 | 1 |
| 4 | Centrality anomalies in complex networks as a result of model over-simplification. New Journal of Physics, 2020, 22, 013043. | 2.9 | 13 |
| 5 | Long-term patterns of gender imbalance in an industry without ability or level of interest differences. PLoS ONE, 2020, 15, e0229662. | 2.5 | 3 |
| 6 | COVID-19 research risks ignoring important host genes due to pre-established research patterns. ELife, 2020, 9, . | 6.0 | 14 |
| 7 | Reply to: Four personality types may be neither robust nor exhaustive. Nature Human Behaviour, 2019, 3, 1047-1048. | 12.0 | 3 |
| 8 | Reply to "Far away from the lamppost" PLoS Biology, 2018, 16, e3000075. | 5.6 | 2 |
| 9 | A robust data-driven approach identifies four personality types across four large data sets. Nature Human Behaviour, 2018, 2, 735-742. | 12.0 | 123 |
| 10 | Large-scale investigation of the reasons why potentially important genes are ignored. PLoS Biology, 2018, 16, e2006643. | 5.6 | 188 |
| 11 | Differences in Collaboration Patterns across Discipline, Career Stage, and Gender. PLoS Biology, 2016, 14, e1002573. | 5.6 | 100 |
| 12 | High-Reproducibility and High-Accuracy Method for Automated Topic Classification. Physical Review X, 2015, 5, . | 8.9 | 45 |
| 13 | 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 |
| 14 | 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 |
| 15 | A Solution to the Challenge of Optimization on "Golf-Course"-Like Fitness Landscapes. PLoS ONE, 2013, 8, e78401. | 2.5 | 2 |
| 16 | Phenomenological Model for Predicting the Catabolic Potential of an Arbitrary Nutrient. PLoS Computational Biology, 2012, 8, e1002762. | 3.2 | 2 |
| 17 | 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 |
| 18 | Duality between Time Series and Networks. PLoS ONE, 2011, 6, e23378. | 2.5 | 180 |

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|----|--|------|-----------|
| 19 | The role of body mass in diet contiguity and food-web structure. <i>Journal of Animal Ecology</i> , 2011, 80, 632-639. | 2.8 | 57 |
| 20 | Statistical validation of a global model for the distribution of the ultimate number of citations accrued by papers published in a scientific journal. <i>Journal of the Association for Information Science and Technology</i> , 2010, 61, 1377-1385. | 2.6 | 79 |
| 21 | Quantifying the Performance of Individual Players in a Team Activity. <i>PLoS ONE</i> , 2010, 5, e10937. | 2.5 | 236 |
| 22 | Levels of complexity in scale-invariant neural signals. <i>Physical Review E</i> , 2009, 79, 041920. | 2.1 | 143 |
| 23 | On Universality in Human Correspondence Activity. <i>Science</i> , 2009, 325, 1696-1700. | 12.6 | 167 |
| 24 | Price dynamics in political prediction markets. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 679-684. | 7.1 | 34 |
| 25 | A truer measure of our ignorance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 6795-6796. | 7.1 | 43 |
| 26 | Effectiveness of Journal Ranking Schemes as a Tool for Locating Information. <i>PLoS ONE</i> , 2008, 3, e1683. | 2.5 | 134 |
| 27 | Extracting the hierarchical organization of complex systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 15224-15229. | 7.1 | 465 |
| 28 | Module identification in bipartite and directed networks. <i>Physical Review E</i> , 2007, 76, 036102. | 2.1 | 324 |
| 29 | Evidence for the existence of a robust pattern of prey selection in food webs. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2007, 274, 1931-1940. | 2.6 | 167 |
| 30 | A robust measure of food web intervality. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 19015-19020. | 7.1 | 116 |
| 31 | Lies, damned lies and statistics. <i>Nature Physics</i> , 2006, 2, 75-76. | 16.7 | 40 |
| 32 | Cartography of complex networks: modules and universal roles. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2005, 2005, P02001. | 2.3 | 517 |
| 33 | Functional cartography of complex metabolic networks. <i>Nature</i> , 2005, 433, 895-900. | 27.8 | 3,086 |
| 34 | Scaling phenomena in the growth dynamics of scientific output. <i>Journal of the Association for Information Science and Technology</i> , 2005, 56, 893-902. | 2.6 | 24 |
| 35 | Novel Collaborations within Experienced Teams Lead to Best Research Outcomes. <i>Annals of Vascular Surgery</i> , 2005, 19, 753-754. | 0.9 | 3 |
| 36 | Canalizing Kauffman Networks: Nonergodicity and Its Effect on Their Critical Behavior. <i>Physical Review Letters</i> , 2005, 94, 218702. | 7.8 | 59 |

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|----|--|------|-----------|
| 37 | Team Assembly Mechanisms Determine Collaboration Network Structure and Team Performance. Science, 2005, 308, 697-702. | 12.6 | 899 |
| 38 | Heuristic segmentation of a nonstationary time series. Physical Review E, 2004, 69, 021108. | 2.1 | 47 |
| 39 | Modularity from fluctuations in random graphs and complex networks. Physical Review E, 2004, 70, 025101. | 2.1 | 680 |
| 40 | Statistical Properties of Commodity Price Fluctuations. , 2004, , 192-197. | | 1 |
| 41 | Sexual networks: implications for the transmission of sexually transmitted infections. Microbes and Infection, 2003, 5, 189-196. | 1.9 | 217 |
| 42 | Asymmetrical singularities in real-world signals. Physical Review E, 2003, 68, 065204. | 2.1 | 46 |
| 43 | Analytical solution of a model for complex food webs. Physical Review E, 2002, 65, 030901. | 2.1 | 54 |
| 44 | Extremum Statistics in Scale-Free Network Models. Physical Review Letters, 2002, 89, 268703. | 7.8 | 36 |
| 45 | Truncation of Power Law Behavior in "Scale-Free" Network Models due to Information Filtering. Physical Review Letters, 2002, 88, 138701. | 7.8 | 172 |
| 46 | Robust Patterns in Food Web Structure. Physical Review Letters, 2002, 88, 228102. | 7.8 | 245 |
| 47 | Different scaling behaviors of commodity spot and future prices. Physical Review E, 2002, 66, 045103. | 2.1 | 60 |
| 48 | Random matrix approach to cross correlations in financial data. Physical Review E, 2002, 65, 066126. | 2.1 | 758 |
| 49 | Quantifying Empirical Economic Fluctuations using the Organizing Principles of Scale Invariance and Universality. , 2002, , 3-11. | | 0 |
| 50 | Quantifying economic fluctuations. Physica A: Statistical Mechanics and Its Applications, 2001, 302, 126-137. | 2.6 | 11 |
| 51 | The web of human sexual contacts. Nature, 2001, 411, 907-908. | 27.8 | 1,384 |
| 52 | From 1/f noise to multifractal cascades in heartbeat dynamics. Chaos, 2001, 11, 641-652. | 2.5 | 431 |
| 53 | Behavioral-Independent Features of Complex Heartbeat Dynamics. Physical Review Letters, 2001, 86, 6026-6029. | 7.8 | 305 |
| 54 | Scale Invariance in the Nonstationarity of Human Heart Rate. Physical Review Letters, 2001, 87, 168105. | 7.8 | 222 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 55 | ECONOPHYSICS: WHAT CAN PHYSICISTS CONTRIBUTE TO ECONOMICS?. International Journal of Theoretical and Applied Finance, 2000, 03, 335-346. | 0.5 | 9 |
| 56 | 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 |
| 57 | Economic fluctuations and anomalous diffusion. Physical Review E, 2000, 62, R3023-R3026. | 2.1 | 210 |
| 58 | Small-World Networks: Evidence for a Crossover Picture. Physical Review Letters, 1999, 82, 3180-3183. | 7.8 | 254 |
| 59 | Multifractality in human heartbeat dynamics. Nature, 1999, 399, 461-465. | 27.8 | 1,474 |
| 60 | Similarities between the growth dynamics of university research and of competitive economic activities. Nature, 1999, 400, 433-437. | 27.8 | 147 |
| 61 | Universal and Nonuniversal Properties of Cross Correlations in Financial Time Series. Physical Review Letters, 1999, 83, 1471-1474. | 7.8 | 913 |
| 62 | Scaling of the distribution of price fluctuations of individual companies. Physical Review E, 1999, 60, 6519-6529. | 2.1 | 466 |
| 63 | Scaling of the distribution of fluctuations of financial market indices. Physical Review E, 1999, 60, 5305-5316. | 2.1 | 745 |
| 64 | Universal Features in the Growth Dynamics of Complex Organizations. Physical Review Letters, 1998, 81, 3275-3278. | 7.8 | 225 |
| 65 | Comment on "Kinetic Roughening in Slow Combustion of Paper". Physical Review Letters, 1998, 80, 5706-5706. | 7.8 | 9 |
| 66 | Scale-Independent Measures and Pathologic Cardiac Dynamics. Physical Review Letters, 1998, 81, 2388-2391. | 7.8 | 126 |
| 67 | Power Law Scaling for a System of Interacting Units with Complex Internal Structure. Physical Review Letters, 1998, 80, 1385-1388. | 7.8 | 231 |
| 68 | Scaling properties of driven interfaces in disordered media. Physical Review E, 1995, 52, 4087-4104. | 2.1 | 82 |
| 69 | Universality classes for interface growth with quenched disorder. Physical Review Letters, 1994, 73, 62-65. | 7.8 | 105 |
| 70 | A cautionary tale from the machine scientist. Nature Machine Intelligence, 0, , . | 16.0 | 0 |