

M Ñngeles Serrano

List of Publications by Year in descending order

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66
papers

4,957
citations

147726

31
h-index

106281

65
g-index

67
all docs

67
docs citations

67
times ranked

4029
citing authors

#	ARTICLE	IF	CITATIONS
1	Perturbation of the Normalized Laplacian Matrix for the Prediction of Missing Links in Real Networks. IEEE Transactions on Network Science and Engineering, 2022, 9, 863-874.	4.1	4
2	Network geometry. Nature Reviews Physics, 2021, 3, 114-135.	11.9	93
3	Scaling up real networks by geometric branching growth. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	22
4	Geometric renormalization unravels self-similarity of the multiscale human connectome. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 20244-20253.	3.3	43
5	Precision as a measure of predictability of missing links in real networks. Physical Review E, 2020, 101, 052318.	0.8	16
6	Navigable maps of structural brain networks across species. PLoS Computational Biology, 2020, 16, e1007584.	1.5	34
7	Small worlds and clustering in spatial networks. Physical Review Research, 2020, 2, .	1.3	20
8	Geometric detection of hierarchical backbones in real networks. Physical Review Research, 2020, 2, .	1.3	2
9	Geometric randomization of real networks with prescribed degree sequence. New Journal of Physics, 2019, 21, 053039.	1.2	3
10	The interconnected wealth of nations: Shock propagation on global trade-investment multiplex networks. Scientific Reports, 2019, 9, 13079.	1.6	14
11	Mercator: uncovering faithful hyperbolic embeddings of complex networks. New Journal of Physics, 2019, 21, 123033.	1.2	47
12	Multiscale unfolding of real networks by geometric renormalization. Nature Physics, 2018, 14, 583-589.	6.5	55
13	Soft Communities in Similarity Space. Journal of Statistical Physics, 2018, 173, 775-782.	0.5	22
14	Metabolic plasticity in synthetic lethal mutants: Viability at higher cost. PLoS Computational Biology, 2018, 14, e1005949.	1.5	2
15	The geometric nature of weights in real complex networks. Nature Communications, 2017, 8, 14103.	5.8	65
16	Detecting the Significant Flux Backbone of <i>Escherichia coli</i> metabolism. FEBS Letters, 2017, 591, 1437-1451.	1.3	3
17	Navigability of temporal networks in hyperbolic space. Scientific Reports, 2017, 7, 15054.	1.6	14
18	Noise-induced polarization switching in complex networks. Physical Review E, 2017, 95, 042305.	0.8	0

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19	Geometric Correlations Mitigate the Extreme Vulnerability of Multiplex Networks against Targeted Attacks. <i>Physical Review Letters</i> , 2017, 118, 218301.	2.9	39
20	Hidden geometric correlations in real multiplex networks. <i>Nature Physics</i> , 2016, 12, 1076-1081.	6.5	90
21	Rescue of endemic states in interconnected networks with adaptive coupling. <i>Scientific Reports</i> , 2016, 6, 29342.	1.6	17
22	The hidden hyperbolic geometry of international trade: World Trade Atlas 1870–2013. <i>Scientific Reports</i> , 2016, 6, 33441.	1.6	60
23	Regulation of burstiness by network-driven activation. <i>Scientific Reports</i> , 2015, 5, 9714.	1.6	8
24	Escaping the avalanche collapse in self-similar multiplexes. <i>New Journal of Physics</i> , 2015, 17, 053033.	1.2	10
25	Mapping high-growth phenotypes in the flux space of microbial metabolism. <i>Journal of the Royal Society Interface</i> , 2015, 12, 20150543.	1.5	4
26	Essential Plasticity and Redundancy of Metabolism Unveiled by Synthetic Lethality Analysis. <i>PLoS Computational Biology</i> , 2014, 10, e1003637.	1.5	39
27	Simulating non-Markovian stochastic processes. <i>Physical Review E</i> , 2014, 90, 042108.	0.8	79
28	Complex architecture of primes and natural numbers. <i>Physical Review E</i> , 2014, 90, 022806.	0.8	8
29	Assessing the Significance and Predicting the Effects of Knockout Cascades in Metabolic Networks. <i>Trends in Mathematics</i> , 2014, , 39-44.	0.1	1
30	Negative feedback self-regulation contributes to robust and high-fidelity transmembrane signal transduction. <i>Journal of the Royal Society Interface</i> , 2013, 10, 20130581.	1.5	4
31	Deciphering the global organization of clustering in real complex networks. <i>Scientific Reports</i> , 2013, 3, 2517.	1.6	52
32	Predicting effects of structural stress in a genome-reduced model bacterial metabolism. <i>Scientific Reports</i> , 2012, 2, 621.	1.6	13
33	A measure of individual role in collective dynamics. <i>Scientific Reports</i> , 2012, 2, 292.	1.6	136
34	Popularity versus similarity in growing networks. <i>Nature</i> , 2012, 489, 537-540.	13.7	432
35	Epidemic spreading on interconnected networks. <i>Physical Review E</i> , 2012, 86, 026106.	0.8	270
36	Uncovering the hidden geometry behind metabolic networks. <i>Molecular BioSystems</i> , 2012, 8, 843.	2.9	84

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37	Network-based scoring system for genome-scale metabolic reconstructions. BMC Systems Biology, 2011, 5, 76.	3.0	6
38	Percolation in Self-Similar Networks. Physical Review Letters, 2011, 106, 048701.	2.9	36
39	Conservation laws for voter-like models on random directed networks. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P10024.	0.9	22
40	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.	3.3	576
41	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.	3.3	3
42	Modeling Statistical Properties of Written Text. PLoS ONE, 2009, 4, e5372.	1.1	77
43	Self-Similarity of Complex Networks and Hidden Metric Spaces. Physical Review Letters, 2008, 100, 078701.	2.9	205
44	On cycles in AS relationships. Computer Communication Review, 2008, 38, 102-104.	1.5	3
45	Rich-club vs rich-multipolarization phenomena in weighted networks. Physical Review E, 2008, 78, 026101.	0.8	37
46	Structural Efficiency of Percolated Landscapes in Flow Networks. PLoS ONE, 2008, 3, e3654.	1.1	6
47	Decoding the structure of the WWW. ACM Transactions on the Web, 2007, 1, 10.	2.0	54
48	Interfaces and the edge percolation map of random directed networks. Physical Review E, 2007, 76, 056121.	0.8	17
49	Phase transition in the globalization of trade. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, L01002-L01002.	0.9	9
50	Patterns of dominant flows in the world trade web. Journal of Economic Interaction and Coordination, 2007, 2, 111-124.	0.4	151
51	Correlations in Complex Networks. Complex Systems and Interdisciplinary Science, 2007, , 35-65.	0.2	11
52	Detecting rich-club ordering in complex networks. Nature Physics, 2006, 2, 110-115.	6.5	763
53	Clustering in complex networks. II. Percolation properties. Physical Review E, 2006, 74, 056115.	0.8	73
54	Modeling the Internet. European Physical Journal B, 2006, 50, 249-254.	0.6	13

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55	Clustering in complex networks. I. General formalism. Physical Review E, 2006, 74, 056114.	0.8	94
56	Percolation and Epidemic Thresholds in Clustered Networks. Physical Review Letters, 2006, 97, 088701.	2.9	155
57	Correlations in weighted networks. Physical Review E, 2006, 74, 055101.	0.8	61
58	Weighted Configuration Model. AIP Conference Proceedings, 2005, , .	0.3	32
59	Competition and Adaptation in an Internet Evolution Model. Physical Review Letters, 2005, 94, 038701.	2.9	28
60	Tuning clustering in random networks with arbitrary degree distributions. Physical Review E, 2005, 72, 036133.	0.8	90
61	Generalized percolation in random directed networks. Physical Review E, 2005, 72, 016106.	0.8	102
62	Topology of the world trade web. Physical Review E, 2003, 68, 015101.	0.8	483
63	Errors on the inverse problem solution for a noisy spherical gravitational wave antenna. Classical and Quantum Gravity, 1999, 16, 3035-3046.	1.5	7
64	The resonator problem in a spherical GW detector. Classical and Quantum Gravity, 1997, 14, 1495-1498.	1.5	1
65	New ideas for a transducer layout in a spherical CW antenna. Nuclear Physics, Section B, Proceedings Supplements, 1996, 48, 116-118.	0.5	0
66	The multiple-resonator problem in a spherical GW antenna: its general solution and new interesting layouts. Europhysics Letters, 1996, 35, 253-258.	0.7	24