David Saad

List of Publications by Year
in descending order

31 papers	909 citations	777949 13 h-index	511568 30 g-index
31 all docs	31 docs citations	31 times ranked	532 citing authors

#	Article	IF	Citations
1	Scalable node-disjoint and edge-disjoint multiwavelength routing. Physical Review E, 2022, 105, 044316.	0.8	4
2	Principled Machine Learning. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-19.	1.9	1
3	Self-organization scheme for balanced routing in large-scale multi-hop networks. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 045001.	0.7	3
4	Futility of being selfish in optimized traffic. Physical Review E, 2021, 103, 022306.	0.8	6
5	Competition, Collaboration, and Optimization in Multiple Interacting Spreading Processes. Physical Review X, 2021, 11, .	2.8	10
6	Impact of presymptomatic transmission on epidemic spreading in contact networks: A dynamic message-passing analysis. Physical Review E, 2021, 103, 052303.	0.8	7
7	Space of Functions Computed by Deep-Layered Machines. Physical Review Letters, 2020, 125, 168301.	2.9	4
8	Large deviation analysis of function sensitivity in random deep neural networks. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 104002.	0.7	7
9	Reducing urban traffic congestion due to localized routing decisions. Physical Review Research, 2020, 2, .	1.3	3
10	Entropy Inflection and Invisible Low-Energy States: Defensive Alliance Example. Physical Review Letters, 2018, 121, 210602.	2.9	6
11	Slow spin dynamics and self-sustained clusters in sparsely connected systems. Physical Review E, 2018, 97, 062154.	0.8	2
12	Exploring the Function Space of Deep-Learning Machines. Physical Review Letters, 2018, 120, 248301.	2.9	15
13	Chimera-like states in structured heterogeneous networks. Chaos, 2017, 27, 043109.	1.0	6
14	Self-sustained clusters as drivers of computational hardness in p -spin models. Physical Review B, 2017, 96, .	1.1	3
15	Optimal deployment of resources for maximizing impact in spreading processes. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E8138-E8146.	3.3	48
16	High storage capacity in the Hopfield model with auto-interactionsâ€"stability analysis. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 465001.	0.7	7
17	Communication networks beyond the capacity crunch. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150191.	1.6	71
18	Shortest node-disjoint paths on random graphs. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P07009.	0.9	16

#	Article	IF	Citations
19	Self-sustained clusters and ergodicity breaking in spin models. Physical Review E, 2013, 88, 032132.	0.8	4
20	Emergence of equilibriumlike domains within nonequilibrium Ising spin systems. Physical Review E, 2013, 87, .	0.8	6
21	From the physics of interacting polymers to optimizing routes on the London Underground. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13717-13722.	3.3	51
22	Competition for Shortest Paths on Sparse Graphs. Physical Review Letters, 2012, 108, 208701.	2.9	28
23	Noisy random Boolean formulae: A statistical physics perspective. Physical Review E, 2010, 82, 041112.	0.8	14
24	Computing with Noise: Phase Transitions in Boolean Formulas. Physical Review Letters, 2009, 103, 248701.	2.9	10
25	Minimizing unsatisfaction in colourful neighbourhoods. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 324023.	0.7	5
26	Random graph coloring: Statistical physics approach. Physical Review E, 2002, 66, 056120.	0.8	31
27	Typical Performance of Gallager-Type Error-Correcting Codes. Physical Review Letters, 2000, 84, 1355-1358.	2.9	98
28	Statistical mechanics of error-correcting codes. Europhysics Letters, 1999, 45, 97-103.	0.7	137
29	Belief propagation vs. TAP for decoding corrupted messages. Europhysics Letters, 1998, 44, 668-674.	0.7	138
30	Globally Optimal Parameters for On-Line Learning in Multilayer Neural Networks. Physical Review Letters, 1997, 79, 2578-2581.	2.9	38
31	Exact Solution for On-Line Learning in Multilayer Neural Networks. Physical Review Letters, 1995, 74, 4337-4340.	2.9	130