

Samir Suweis

List of Publications by Year in descending order

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Version: 2024-02-01

72
papers

3,389
citations

172457

29
h-index

155660

55
g-index

83
all docs

83
docs citations

83
times ranked

4239
citing authors

#	ARTICLE	IF	CITATIONS
1	Needles in Haystacks: Understanding the Success of Selective Pairing of Nucleic Acids. International Journal of Molecular Sciences, 2022, 23, 3072.	4.1	1
2	OxDNA to Study Species Interactions. Entropy, 2022, 24, 458.	2.2	1
3	Pairing statistics and melting of random DNA oligomers: Finding your partner in superdiverse environments. PLoS Computational Biology, 2022, 18, e1010051.	3.2	3
4	Effect of delay on the emergent stability patterns in generalized Lotka–Volterra ecological dynamics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, .	3.4	5
5	Criticality and network structure drive emergent oscillations in a stochastic whole-brain model. Journal of Physics Complexity, 2022, 3, 025010.	2.2	3
6	Disentangling the critical signatures of neural activity. Scientific Reports, 2022, 12, .	3.3	11
7	Recovery of neural dynamics criticality in personalized whole-brain models of stroke. Nature Communications, 2022, 13, .	12.8	22
8	Dimensionality reduction of complex dynamical systems. IScience, 2021, 24, 101912.	4.1	19
9	An ecological approach to structural flexibility in online communication systems. Nature Communications, 2021, 12, 1941.	12.8	7
10	Statistical physics of DNA hybridization. Physical Review E, 2021, 103, 042503.	2.1	5
11	Upscaling human activity data: A statistical ecology approach. PLoS ONE, 2021, 16, e0253461.	2.5	1
12	Neuronal Avalanches Across the Rat Somatosensory Barrel Cortex and the Effect of Single Whisker Stimulation. Frontiers in Systems Neuroscience, 2021, 15, 709677.	2.5	15
13	Constrained proteome allocation affects coexistence in models of competitive microbial communities. ISME Journal, 2021, 15, 1458-1477.	9.8	10
14	Neutral theory for competing attention in social networks. Physical Review Research, 2021, 3, .	3.6	4
15	True scale-free networks hidden by finite size effects. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	40
16	Effective Resource Competition Model for Species Coexistence. Physical Review Letters, 2021, 127, 208101.	7.8	10
17	River basin salinization as a form of aridity. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 17635-17642.	7.1	33
18	Critical slowing down associated with critical transition and risk of collapse in crypto-currency. Royal Society Open Science, 2020, 7, 191450.	2.4	7

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19	Dynamic metabolic adaptation can promote species coexistence in competitive microbial communities. <i>PLoS Computational Biology</i> , 2020, 16, e1007896.	3.2	60
20	Taxonomic classification method for metagenomics based on core protein families with Core-Kaiju. <i>Nucleic Acids Research</i> , 2020, 48, e93-e93.	14.5	19
21	Simulating the Cascading Effects of an Extreme Agricultural Production Shock: Global Implications of a Contemporary US Dust Bowl Event. <i>Frontiers in Sustainable Food Systems</i> , 2020, 4, .	3.9	24
22	Scaling and criticality in a phenomenological renormalization group. <i>Physical Review Research</i> , 2020, 2, .	3.6	22
23	Neutral and niche forces as drivers of species selection. <i>Journal of Theoretical Biology</i> , 2019, 483, 109969.	1.7	10
24	Inferring macroecological patterns from local presence/absence data. <i>Oikos</i> , 2019, 128, 1641-1652.	2.7	5
25	Brain controllability: Not a slam dunk yet. <i>NeuroImage</i> , 2019, 200, 552-555.	4.2	12
26	Negative ion beam source as a complex system: identification of main processes and key interdependence. <i>Rendiconti Lincei</i> , 2019, 30, 277-285.	2.2	2
27	Reconciling cooperation, biodiversity and stability in complex ecological communities. <i>Scientific Reports</i> , 2019, 9, 5580.	3.3	19
28	Network model of conviction-driven social segregation. <i>Physical Review E</i> , 2019, 99, 032310.	2.1	4
29	Impact of globalization on the resilience and sustainability of natural resources. <i>Nature Sustainability</i> , 2019, 2, 283-289.	23.7	74
30	Global virtual water trade and the hydrological cycle: patterns, drivers, and socio-environmental impacts. <i>Environmental Research Letters</i> , 2019, 14, 053001.	5.2	118
31	The Global Food-Energy-Water Nexus. <i>Reviews of Geophysics</i> , 2018, 56, 456-531.	23.0	446
32	Warnings and caveats in brain controllability. <i>NeuroImage</i> , 2018, 176, 83-91.	4.2	57
33	Vegetation Controls on Dryland Salinity. <i>Geophysical Research Letters</i> , 2018, 45, 11,669.	4.0	25
34	Homeostatic plasticity and emergence of functional networks in a whole-brain model at criticality. <i>Scientific Reports</i> , 2018, 8, 15682.	3.3	35
35	A universal model for predicting human migration under climate change: examining future sea level rise in Bangladesh. <i>Environmental Research Letters</i> , 2018, 13, 064030.	5.2	76
36	Particle Beams as Controllable Complex Systems: Application of the Network Theory. <i>Plasma and Fusion Research</i> , 2018, 13, 3405091-3405091.	0.7	1

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37	Resilience in the global food system. <i>Environmental Research Letters</i> , 2017, 12, 025010.	5.2	100
38	Feasibility and coexistence of large ecological communities. <i>Nature Communications</i> , 2017, 8, .	12.8	115
39	Explorability and the origin of network sparsity in living systems. <i>Scientific Reports</i> , 2017, 7, 12323.	3.3	34
40	Upscaling species richness and abundances in tropical forests. <i>Science Advances</i> , 2017, 3, e1701438.	10.3	29
41	Collapse of resilience patterns in generalized Lotka-Volterra dynamics and beyond. <i>Physical Review E</i> , 2017, 95, 062307.	2.1	27
42	Species coexistence in a neutral dynamics with environmental noise. <i>Journal of Theoretical Biology</i> , 2017, 413, 1-10.	1.7	42
43	A Data Driven Network Approach to Rank Countries Production Diversity and Food Specialization. <i>PLoS ONE</i> , 2016, 11, e0165941.	2.5	4
44	Cooperation, competition and the emergence of criticality in communities of adaptive systems. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2016, 2016, 033203.	2.3	9
45	Species survival and scaling laws in hostile and disordered environments. <i>Physical Review E</i> , 2016, 94, 042404.	2.1	1
46	Statistical mechanics of ecological systems: Neutral theory and beyond. <i>Reviews of Modern Physics</i> , 2016, 88, .	45.6	122
47	Past and present biophysical redundancy of countries as a buffer to changes in food supply. <i>Environmental Research Letters</i> , 2016, 11, 055008.	5.2	29
48	Reserves and trade jointly determine exposure to food supply shocks. <i>Environmental Research Letters</i> , 2016, 11, 095009.	5.2	88
49	What commodities and countries impact inequality in the global food system?. <i>Environmental Research Letters</i> , 2016, 11, 095013.	5.2	8
50	Neutral dynamics with environmental noise: Age-size statistics and species lifetimes. <i>Physical Review E</i> , 2015, 92, 022722.	2.1	22
51	Resilience and reactivity of global food security. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 6902-6907.	7.1	179
52	Effect of localization on the stability of mutualistic ecological networks. <i>Nature Communications</i> , 2015, 6, 10179.	12.8	70
53	Towards a unified descriptive theory for spatial ecology: predicting biodiversity patterns across spatial scales. <i>Methods in Ecology and Evolution</i> , 2015, 6, 324-332.	5.2	57
54	Early Warning Signs in Social-Ecological Networks. <i>PLoS ONE</i> , 2014, 9, e101851.	2.5	42

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55	Biophysical controls on cluster dynamics and architectural differentiation of microbial biofilms in contrasting flow environments. <i>Environmental Microbiology</i> , 2014, 16, 802-812.	3.8	29
56	Disentangling the effect of hybrid interactions and of the constant effort hypothesis on ecological community stability. <i>Oikos</i> , 2014, 123, 525-532.	2.7	56
57	Information-based fitness and the emergence of criticality in living systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 10095-10100.	7.1	145
58	Emergence of structural and dynamical properties of ecological mutualistic networks. <i>Nature</i> , 2013, 500, 449-452.	27.8	221
59	Growth or reproduction: emergence of an evolutionary optimal strategy. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2013, 2013, P10020.	2.3	3
60	Water-controlled wealth of nations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 4230-4233.	7.1	108
61	An exactly solvable coarse-grained model for species diversity. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2012, 2012, P07017.	2.3	4
62	Modeling past and future structure of the global virtual water trade network. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	42
63	On species persistence-time distributions. <i>Journal of Theoretical Biology</i> , 2012, 303, 15-24.	1.7	32
64	Stochastic modeling of salt accumulation in the root zone due to capillary flux from brackish groundwater. <i>Water Resources Research</i> , 2011, 47, .	4.2	41
65	Water for food: The global virtual water trade network. <i>Water Resources Research</i> , 2011, 47, .	4.2	227
66	Structure and controls of the global virtual water trade network. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	103
67	Prescription-induced jump distributions in multiplicative Poisson processes. <i>Physical Review E</i> , 2011, 83, 061119.	2.1	17
68	Spatial effects on species persistence and implications for biodiversity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 4346-4351.	7.1	70
69	Impact of stochastic fluctuations in storage–discharge relations on streamflow distributions. <i>Water Resources Research</i> , 2010, 46, .	4.2	12
70	An indirect assessment on the impact of connectivity of conductivity classes upon longitudinal asymptotic macrodispersivity. <i>Water Resources Research</i> , 2010, 46, .	4.2	31
71	Stochastic modeling of soil salinity. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	49
72	Quantifying the drivers behind collective attention in information ecosystems. <i>Journal of Physics Complexity</i> , 0, , .	2.2	0