

Simone Pigolotti

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5342698/publications.pdf>

Version: 2024-02-01

73
papers

2,073
citations

236612

25
h-index

276539

41
g-index

82
all docs

82
docs citations

82
times ranked

2017
citing authors

#	ARTICLE	IF	CITATIONS
1	Population genetics in microchannels. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2120821119.	3.3	10
2	Optimization and Fabrication of Multi-Level Microchannels for Long-Term Imaging of Bacterial Growth and Expansion. Micromachines, 2022, 13, 576.	1.4	1
3	Enhanced Mutation Rate, Relaxed Selection, and the "Domino Effect" are associated with Gene Loss in <i>Blattabacterium</i> , A Cockroach Endosymbiont. Molecular Biology and Evolution, 2021, 38, 3820-3831.	3.5	13
4	Generalized Euler-Lotka equation for correlated cell divisions. Physical Review E, 2021, 103, L060402.	0.8	4
5	Physical bioenergetics: Energy fluxes, budgets, and constraints in cells. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	52
6	Length Scales in Brownian yet Non-Gaussian Dynamics. Physical Review X, 2021, 11, .	2.8	24
7	Search and Localization Dynamics of the CRISPR-Cas9 System. Physical Review Letters, 2021, 127, 208102.	2.9	4
8	Ocean currents promote rare species diversity in protists. Science Advances, 2020, 6, eaaz9037.	4.7	13
9	Increased Mutation Rate Is Linked to Genome Reduction in Prokaryotes. Current Biology, 2020, 30, 3848-3855.e4.	1.8	44
10	Stochastic thermodynamics: experiment and theory. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 064001.	0.9	3
11	Bifractal nature of chromosome contact maps. Physical Review Research, 2020, 2, .	1.3	4
12	Error-Speed Correlations in Biopolymer Synthesis. Physical Review Letters, 2019, 123, 038101.	2.9	13
13	Integral fluctuation relations for entropy production at stopping times. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 104006.	0.9	26
14	Bet-hedging strategies in expanding populations. PLoS Computational Biology, 2019, 15, e1006529.	1.5	44
15	Assembly of heteropolymers via a network of reaction coordinates. Physical Review E, 2019, 100, 062502.	0.8	5
16	Hyperaccurate currents in stochastic thermodynamics. Physical Review E, 2019, 100, 060102.	0.8	26
17	Energetic funnel facilitates facilitated diffusion. Nucleic Acids Research, 2018, 46, 558-567.	6.5	39
18	Evolution of Complex Asexual Reproductive Strategies in Jellyfish. American Naturalist, 2018, 192, 72-80.	1.0	5

#	ARTICLE	IF	CITATIONS
19	Mapping of uncertainty relations between continuous and discrete time. <i>Physical Review E</i> , 2018, 97, 032109.	0.8	33
20	Stochastic Spatial Models in Ecology: A Statistical Physics Approach. <i>Journal of Statistical Physics</i> , 2018, 172, 44-73.	0.5	23
21	Arcsine Laws in Stochastic Thermodynamics. <i>Physical Review Letters</i> , 2018, 121, 090601.	2.9	16
22	Generic Properties of Stochastic Entropy Production. <i>Physical Review Letters</i> , 2017, 119, 140604.	2.9	118
23	Protocols for Copying and Proofreading in Template-Assisted Polymerization. <i>Journal of Statistical Physics</i> , 2016, 162, 1167-1182.	0.5	14
24	Competition between fast- and slow-diffusing species in non-homogeneous environments. <i>Journal of Theoretical Biology</i> , 2016, 395, 204-210.	0.8	8
25	Numerical and experimental study of the effects of noise on the permutation entropy. <i>New Journal of Physics</i> , 2015, 17, 093002.	1.2	22
26	Thermodynamics of Error Correction. <i>Physical Review X</i> , 2015, 5, .	2.8	40
27	Stochasticity enhances the gaining of bet-hedging strategies in contact-process-like dynamics. <i>Physical Review E</i> , 2015, 91, 032114.	0.8	12
28	Correction: "Analysis of self-overlap reveals trade-offs in plankton swimming trajectories". <i>Journal of the Royal Society Interface</i> , 2014, 11, 20140479.	1.5	0
29	Analysis of self-overlap reveals trade-offs in plankton swimming trajectories. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20140164.	1.5	21
30	Selective Advantage of Diffusing Faster. <i>Physical Review Letters</i> , 2014, 112, 188102.	2.9	28
31	Inherent directionality explains the lack of feedback loops in empirical networks. <i>Scientific Reports</i> , 2014, 4, 7497.	1.6	17
32	Stochastic competition between two populations in space. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , 2014, , 105-117.	0.3	2
33	Species abundances and lifetimes: From neutral to niche-stabilized communities. <i>Journal of Theoretical Biology</i> , 2013, 338, 1-8.	0.8	21
34	Quality control system response to stochastic growth of amyloid fibrils. <i>FEBS Letters</i> , 2013, 587, 1405-1410.	1.3	2
35	Kinetic versus Energetic Discrimination in Biological Copying. <i>Physical Review Letters</i> , 2013, 110, 188101.	2.9	72
36	Growth, competition and cooperation in spatial population genetics. <i>Theoretical Population Biology</i> , 2013, 84, 72-86.	0.5	39

#	ARTICLE	IF	CITATIONS
37	Replicator dynamics with turnover of players. <i>Physical Review E</i> , 2013, 88, 022806.	0.8	8
38	Equilibrium Strategy and Population-Size Effects in Lowest Unique Bid Auctions. <i>Physical Review Letters</i> , 2012, 108, 088701.	2.9	16
39	On \mathbb{R}^n - and $\mathbb{R}^{n/4}$ -space descriptions: Gibbs and Boltzmann entropies of symplectic coupled maps. <i>Physica Scripta</i> , 2012, 86, 058513.	1.2	7
40	Population Genetics in Compressible Flows. <i>Physical Review Letters</i> , 2012, 108, 128102.	2.9	42
41	What Ecological Factors Shape Species-Area Curves in Neutral Models?. <i>PLoS ONE</i> , 2012, 7, e38232.	1.1	18
42	Adaptive behaviour, tri-trophic food-web stability and damping of chaos. <i>Journal of the Royal Society Interface</i> , 2012, 9, 1373-1380.	1.5	18
43	Limit-cycle oscillations and stable patterns in repressor lattices. <i>Physical Review E</i> , 2012, 86, 031905.	0.8	2
44	Population dynamics in compressible flows. <i>European Physical Journal: Special Topics</i> , 2012, 204, 57-73.	1.2	19
45	Effects of Growth and Mutation on Pattern Formation in Tissues. <i>PLoS ONE</i> , 2012, 7, e48772.	1.1	2
46	Switching between oscillations and homeostasis in competing negative and positive feedback motifs. <i>Journal of Theoretical Biology</i> , 2012, 307, 205-210.	0.8	18
47	Particle algorithms for population dynamics in flows. <i>Journal of Physics: Conference Series</i> , 2011, 333, 012013.	0.3	4
48	Self-Consistent Method for Density Estimation. <i>Journal of the Royal Statistical Society Series B: Statistical Methodology</i> , 2011, 73, 407-422.	1.1	33
49	Ecological oscillations induced by a shared predator and the "Winner peaks first" rule. <i>Physical Review E</i> , 2011, 84, 031915.	0.8	0
50	Coexistence and invasibility in a two-species competition model with habitat-preference. <i>Journal of Theoretical Biology</i> , 2010, 265, 609-617.	0.8	13
51	How Gaussian competition leads to lumpy or uniform species distributions. <i>Theoretical Ecology</i> , 2010, 3, 89-96.	0.4	39
52	Entropy production and coarse graining in Markov processes. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2010, 2010, P05015.	0.9	65
53	Stop-and-go kinetics in amyloid fibrillation. <i>Physical Review E</i> , 2010, 82, 010901.	0.8	45
54	Statistics of trajectories in two-state master equations. <i>Physical Review E</i> , 2009, 79, 021121.	0.8	4

#	ARTICLE	IF	CITATIONS
55	Repressor Lattice: Feedback, Commensurability, and Dynamical Frustration. <i>Physical Review Letters</i> , 2009, 103, 118101.	2.9	32
56	Symbolic Dynamics of Biological Feedback Networks. <i>Physical Review Letters</i> , 2009, 102, 088701.	2.9	16
57	Modeling proteasome dynamics in Parkinson's disease. <i>Physical Biology</i> , 2009, 6, 036005.	0.8	23
58	Speciation-rate dependence in species-area relationships. <i>Journal of Theoretical Biology</i> , 2009, 260, 83-89.	0.8	31
59	Genetic oscillation patterns. <i>European Physical Journal: Special Topics</i> , 2009, 178, 45-56.	1.2	5
60	Species competition: coexistence, exclusion and clustering. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009, 367, 3183-3195.	1.6	45
61	Coarse graining of master equations with fast and slow states. <i>Journal of Chemical Physics</i> , 2008, 128, 154114.	1.2	47
62	Swimming in turbulence: zooplankton fitness in terms of foraging efficiency and predation risk. <i>Journal of Plankton Research</i> , 2008, 31, 121-133.	0.8	68
63	Macroscopic equations for the adiabatic piston. <i>Physical Review E</i> , 2007, 76, 051103.	0.8	21
64	Species Clustering in Competitive Lotka-Volterra Models. <i>Physical Review Letters</i> , 2007, 98, 258101.	2.9	72
65	Oscillation patterns in negative feedback loops. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 6533-6537.	3.3	119
66	Initial growth of Boltzmann entropy and chaos in a large assembly of weakly interacting systems. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2007, 385, 170-184.	1.2	21
67	Oscillations and temporal signalling in cells. <i>Physical Biology</i> , 2007, 4, R1-R17.	0.8	108
68	Dynamical evolution of ecosystems. <i>Nature</i> , 2006, 444, 926-928.	13.7	117
69	Absorbing processes in Richardson diffusion: Analytical results. <i>Physics of Fluids</i> , 2006, 18, 048104.	1.6	5
70	Properties making a chaotic system a good pseudo random number generator. <i>Physical Review E</i> , 2005, 72, 016220.	0.8	55
71	Species lifetime distribution for simple models of ecologies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 15747-15751.	3.3	66
72	Stochastic model for the species abundance problem in an ecological community. <i>Physical Review E</i> , 2004, 70, 011916.	0.8	22

#	ARTICLE	IF	CITATIONS
73	Coarse-Grained Probabilistic Automata Mimicking Chaotic Systems. Physical Review Letters, 2003, 91, 044101.	2.9	22