Stanislas Leibler

List of Publications by Year
in descending order

39 papers	17,749 citations	186265 28 h-index	315739 38 g-index
40 all docs	40 docs citations	40 times ranked	15596 citing authors

#	Article	IF	Citations
1	Evolutionary dynamics, evolutionary forces, and robustness: A nonequilibrium statistical mechanics perspective. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2112083119.	7.1	4
2	Bacterial Growth Control Mechanisms Inferred from Multivariate Statistical Analysis of Single-Cell Measurements. Current Biology, 2021, 31, 955-964.e4.	3.9	24
3	Nongenetic individuality, changeability, and inheritance in bacterial behavior. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	11
4	Lessons from equilibrium statistical physics regarding the assembly of protein complexes. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 114-120.	7.1	32
5	Homeorhesis and ecological succession quantified in synthetic microbial ecosystems. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14852-14861.	7.1	25
6	Environment-to-phenotype mapping and adaptation strategies in varying environments. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13847-13855.	7.1	49
7	Benefits of phenotypic plasticity for population growth in varying environments. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12745-12750.	7.1	75
8	Bet Hedging against Demographic Fluctuations. Physical Review Letters, 2017, 119, 108103.	7.8	19
9	Strain analysis of protein structures and low dimensionality of mechanical allosteric couplings. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5847-E5855.	7.1	61
10	Evolutionary learning of adaptation to varying environments through a transgenerational feedback. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11266-11271.	7.1	29
11	Strongly Deterministic Population Dynamics in Closed Microbial Communities. Physical Review X, 2015, 5, .	8.9	18
12	Multifarious assembly mixtures: Systems allowing retrieval of diverse stored structures. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 54-59.	7.1	52
13	Protein Sectors: Statistical Coupling Analysis versus Conservation. PLoS Computational Biology, 2015, 11, e1004091.	3.2	70
14	A model for the generation and transmission of variations in evolution. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1940-9.	7.1	80
15	Discriminatory Proofreading Regimes in Nonequilibrium Systems. Physical Review X, 2014, 4, .	8.9	41
16	Dynamic Persistence of Antibiotic-Stressed Mycobacteria. Science, 2013, 339, 91-95.	12.6	495
17	Trend and fluctuations: Analysis and design of population dynamics measurements in replicate ecosystems. Physical Review E, 2013, 88, 062714.	2.1	8
18	The Value of Information for Populations in Varying Environments. Journal of Statistical Physics, 2011, 142, 1124-1166.	1.2	146

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19	An interdomain sector mediating allostery in Hsp70 molecular chaperones. Molecular Systems Biology, 2010, 6, 414.	7.2	118
20	Individual histories and selection in heterogeneous populations. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 13183-13188.	7.1	95
21	Protein Sectors: Evolutionary Units of Three-Dimensional Structure. Cell, 2009, 138, 774-786.	28.9	642
22	Polymer-Population Mapping and Localization in the Space of Phenotypes. Physical Review Letters, 2006, 97, 068101.	7.8	22
23	Phenotypic Diversity, Population Growth, and Information in Fluctuating Environments. Science, 2005, 309, 2075-2078.	12.6	1,157
24	Bacterial Persistence. Genetics, 2005, 169, 1807-1814.	2.9	476
25	Resilient circadian oscillator revealed in individual cyanobacteria. Nature, 2004, 430, 81-85.	27.8	223
26	Bacterial Persistence as a Phenotypic Switch. Science, 2004, 305, 1622-1625.	12.6	2,451
27	Environmental stresses can alleviate the average deleterious effect of mutations. , 2003, 2, 14.		118
28	Modeling network dynamics. Journal of Cell Biology, 2003, 161, 471-476.	5.2	195
29	DNA Looping and Physical Constraints on Transcription Regulation. Journal of Molecular Biology, 2003, 331, 981-989.	4.2	173
30	Mechanisms of noise-resistance in genetic oscillators. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 5988-5992.	7.1	518
31	Combinatorial Synthesis of Genetic Networks. Science, 2002, 296, 1466-1470.	12.6	480
32	Establishment of developmental precision and proportions in the early Drosophila embryo. Nature, 2002, 415, 798-802.	27.8	701
33	A synthetic oscillatory network of transcriptional regulators. Nature, 2000, 403, 335-338.	27.8	4,143
34	Circadian clocks limited by noise. Nature, 2000, 403, 267-268.	27.8	477
35	An Ultrasensitive Bacterial Motor Revealed by Monitoring Signaling Proteins in Single Cells. Science, 2000, 287, 1652-1655.	12.6	538
36	From molecular to modular cell biology. Nature, 1999, 402, C47-C52.	27.8	3,121

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37	Protein Mobility in the Cytoplasm of Escherichia coli. Journal of Bacteriology, 1999, 181, 197-203.	2.2	539
38	Photoactivation turns green fluorescent protein red. Current Biology, 1997, 7, 809-812.	3.9	165
39	A magnetic manipulator for studying local rheology and micromechanical properties of biological systems. Review of Scientific Instruments, 1996, 67, 818-827.	1.3	158