Sandeep Krishna

List of Publications by Year
in descending order

40	1,532	304743 22	330143 37
papers	citations	h-index	g-index

59	59	59	1642
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Autocatalytic Sets and the Growth of Complexity in an Evolutionary Model. Physical Review Letters, 1998, 81, 5684-5687.	7.8	174
2	Minimal model of spiky oscillations in NF-ÂB signaling. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10840-10845.	7.1	151
3	Oscillation patterns in negative feedback loops. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 6533-6537.	7.1	119
4	Simplified Models of Biological Networks. Annual Review of Biophysics, 2010, 39, 43-59.	10.0	90
5	Large extinctions in an evolutionary model: The role of innovation and keystone species. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 2055-2060.	7.1	78
6	Dynamic features of gene expression control by small regulatory RNAs. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10655-10659.	7.1	78
7	Signal integration in the galactose network of Escherichia coli. Molecular Microbiology, 2007, 65, 465-476.	2.5	63
8	Modeling oscillatory control in NF-Î¹B, p53 and Wnt signaling. Current Opinion in Genetics and Development, 2010, 20, 656-664.	3.3	63
9	Context-dependent conservation of DNA methyltransferases in bacteria. Nucleic Acids Research, 2012, 40, 7066-7073.	14.5	60
10	On chaotic dynamics in transcription factors and the associated effects in differential gene regulation. Nature Communications, 2019, 10, 71.	12.8	60
11	Modeling the NF-Î¹B mediated inflammatory response predicts cytokine waves in tissue. BMC Systems Biology, 2011, 5, 115.	3.0	54
12	A Wnt Oscillator Model for Somitogenesis. Biophysical Journal, 2010, 98, 943-950.	0.5	45
13	Noise Induces Hopping between NF-Î¹B Entrainment Modes. Cell Systems, 2016, 3, 532-539.e3.	6.2	44
14	Metabolic constraints drive self-organization of specialized cell groups. ELife, 2019, 8, .	6.0	42
15	Inducing phaseâ€locking and chaos in cellular oscillators by modulating the driving stimuli. FEBS Letters, 2012, 586, 1664-1668.	2.8	37
16	Restriction modification systems as engines of diversity. Frontiers in Microbiology, 2015, 6, 528.	3.5	35
17	Repressor Lattice: Feedback, Commensurability, and Dynamical Frustration. Physical Review Letters, 2009, 103, 118101.	7.8	32
18	In silico Evolution of Lysis-Lysogeny Strategies Reproduces Observed Lysogeny Propensities in Temperate Bacteriophages. Frontiers in Microbiology, 2017, 8, 1386.	3.5	32

#	Article	IF	Citations
19	A tale of two rhythms: Locked clocks and chaos in biology. Cell Systems, 2021, 12, 291-303.	6.2	29
20	Combinatorics of feedback in cellular uptake and metabolism of small molecules. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 20815-20819.	7.1	27
21	Crashes, recoveries, and â€œcore shiftsâ€•in a model of evolving networks. Physical Review E, 2002, 65, 026103.	2.1	26
22	Direct and indirect effects in the regulation of overlapping promoters. Nucleic Acids Research, 2011, 39, 6879-6885.	14.5	25
23	The effect of LacI autoregulation on the performance of the lactose utilization system in Escherichia coli. Nucleic Acids Research, 2013, 41, 6381-6390.	14.5	20
24	Self-Reproduction and Darwinian Evolution in Autocatalytic Chemical Reaction Systems. Life, 2021, 11, 308.	2.4	18
25	Dominant Negative Autoregulation Limits Steady-State Repression Levels in Gene Networks. Journal of Bacteriology, 2009, 191, 4487-4491.	2.2	17
26	Minimal Gene Regulatory Circuits for a Lysis-Lysogeny Choice in the Presence of Noise. PLoS ONE, 2010, 5, e15037.	2.5	16
27	Timing of Gene Transcription in the Galactose Utilization System of Escherichia coli. Journal of Biological Chemistry, 2010, 285, 38062-38068.	3.4	16
28	A minimal â€œpushâ€“pullâ€•bistability model explains oscillations between quiescent and proliferative cell states. Molecular Biology of the Cell, 2018, 29, 2243-2258.	2.1	12
29	Optimizing testing for COVID-19 in India. PLoS Computational Biology, 2021, 17, e1009126.	3.2	12
30	Resource plasticity-driven carbon-nitrogen budgeting enables specialization and division of labor in a clonal community. ELife, 2020, 9, .	6.0	8
31	Entrainment as a means of controlling phase waves in populations of coupled oscillators. Physical Review E, 2018, 98, .	2.1	6
32	Evidence of sinks and sources in the phospholipase Câ€activated <scp>PIP</scp>₂ cycle. FEBS Letters, 2018, 592, 962-972.	2.8	5
33	Time Correlations in Mode Hopping of Coupled Oscillators. Journal of Statistical Physics, 2017, 167, 792-805.	1.2	3
34	Constraints on somite formation in developing embryos. Journal of the Royal Society Interface, 2019, 16, 20190451.	3.4	3
35	Defence versus growth in a hostile world: lessons from phage and bacteria. Royal Society Open Science, 2020, 7, 201118.	2.4	3
36	Emergence of metabolic heterogeneity in cell populations: lessons from budding yeast. , 2020, , 335-360.		3

#	Article	IF	Citations
37	Natural Selection beyond Life? A Workshop Report. Life, 2021, 11, 1051.	2.4	3
38	Limit-cycle oscillations and stable patterns in repressor lattices. Physical Review E, 2012, 86, 031905.	2.1	2
39	Emergence of networks of shared restriction-modification systems in phageâ€“bacteria ecosystems. Journal of Biosciences, 2022, 47, .	1.1	2
40	Analysis of Infection Time Courses Shows CII Levels Determine the Frequency of Lysogeny in Phage 186. Pharmaceuticals, 2021, 14, 998.	3.8	1