Areejit Samal

List of Publications by Year
in descending order

57 papers	1,580 citations	393982 19 h-index	344852 36 g-index
70 all docs	70 docs citations	70 times ranked	1864 citing authors

#	Article	IF	Citations
1	IMPPAT: A curated database of Indian Medicinal Plants, Phytochemistry And Therapeutics. Scientific Reports, 2018, 8, 4329.	1.6	306
2	The regulatory network of E. coli metabolism as a Boolean dynamical system exhibits both homeostasis and flexibility of response. BMC Systems Biology, 2008, 2, 21.	3.0	102
3	Forman curvature for complex networks. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 063206.	0.9	95
4	Comparative analysis of two discretizations of Ricci curvature for complex networks. Scientific Reports, 2018, 8, 8650.	1.6	80
5	Common Regulatory Pathways Mediate Activity of MicroRNAs Inducing Cardiomyocyte Proliferation. Cell Reports, 2019, 27, 2759-2771.e5.	2.9	77
6	A curated knowledgebase on endocrine disrupting chemicals and their biological systems-level perturbations. Science of the Total Environment, 2019, 692, 281-296.	3.9	67
7	Low degree metabolites explain essential reactions and enhance modularity in biological networks. BMC Bioinformatics, 2006, 7, 118.	1.2	56
8	Comparative Proteomic Analyses of Avirulent, Virulent, and Clinical Strains of Mycobacterium tuberculosis Identify Strain-specific Patterns. Journal of Biological Chemistry, 2016, 291, 14257-14273.	1.6	55
9	In Silico Identification of Potential Natural Product Inhibitors of Human Proteases Key to SARS-CoV-2 Infection. Molecules, 2020, 25, 3822.	1.7	51
10	Genotype networks in metabolic reaction spaces. BMC Systems Biology, 2010, 4, 30.	3.0	49
11	Relative stability of network states in Boolean network models of gene regulation in development. BioSystems, 2016, 142-143, 15-24.	0.9	45
12	Network reconstruction and systems analysis of plant cell wall deconstruction by Neurospora crassa. Biotechnology for Biofuels, 2017, 10, 225.	6.2	42
13	Comparative systems analysis of the secretome of the opportunistic pathogen Aspergillus fumigatus and other Aspergillus species. Scientific Reports, 2018, 8, 6617.	1.6	42
14	Advances in the integration of transcriptional regulatory information into genome-scale metabolic models. BioSystems, 2016, 147, 1-10.	0.9	40
15	Systematic evaluation of a new combinatorial curvature for complex networks. Chaos, Solitons and Fractals, 2017, 101, 50-67.	2.5	35
16	DEDuCT 2.0: An updated knowledgebase and an exploration of the current regulations and guidelines from the perspective of endocrine disrupting chemicals. Chemosphere, 2021, 267, 128898.	4.2	30
17	Targeting multiple targets in<i>Pseudomonas aeruginosa</i>PAO1 using flux balance analysis of a reconstructed genome-scale metabolic network. Journal of Drug Targeting, 2011, 19, 1-13.	2.1	28
18	Potential phytochemical inhibitors of SARS-CoV-2 helicase Nsp13: a molecular docking and dynamic simulation study. Molecular Diversity, 2022, 26, 429-442.	2.1	27

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19	Broad Substrate-Specific Phosphorylation Events Are Associated With the Initial Stage of Plant Cell Wall Recognition in Neurospora crassa. Frontiers in Microbiology, 2019, 10, 2317.	1.5	25
20	Discrete Ricci curvatures for directed networks. Chaos, Solitons and Fractals, 2019, 118, 347-360.	2.5	23
21	Network geometry and market instability. Royal Society Open Science, 2021, 8, 201734.	1.1	18
22	Network function shapes network structure: the case of the Arabidopsis flower organ specification genetic network. Molecular BioSystems, 2013, 9, 1726.	2.9	17
23	Persistent homology of unweighted complex networks via discrete Morse theory. Scientific Reports, 2019, 9, 13817.	1.6	17
24	STDP-driven networks and the C. elegans neuronal network. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 3900-3914.	1.2	16
25	Environmental versatility promotes modularity in genome-scale metabolic networks. BMC Systems Biology, 2011, 5, 135.	3.0	16
26	MeFSAT: a curated natural product database specific to secondary metabolites of medicinal fungi. RSC Advances, 2021, 11, 2596-2607.	1.7	16
27	Randomizing Genome-Scale Metabolic Networks. PLoS ONE, 2011, 6, e22295.	1.1	14
28	Minimum complexity drives regulatory logic in Boolean models of living systems. , 2022, 1, .		14
29	A simple differential geometry for complex networks. Network Science, 2021, 9, S106-S133.	0.8	13
30	Investigation of a derived adverse outcome pathway (AOP) network for endocrine-mediated perturbations. Science of the Total Environment, 2022, 826, 154112.	3.9	13
31	Analysis of the hierarchical structure of the B. subtilis transcriptional regulatory network. Molecular BioSystems, 2015, 11, 930-941.	2.9	12
32	ExHuMId: A curated resource and analysis of Exposome of Human Milk across India. Chemosphere, 2021, 271, 129583.	4.2	11
33	Conservation of high-flux backbone in alternate optimal and near-optimal flux distributions of metabolic networks. Systems and Synthetic Biology, 2008, 2, 83-93.	1.0	10
34	Hopf bifurcation in the evolution of networks driven by spike-timing-dependent plasticity. Physical Review E, 2012, 86, 056103.	0.8	10
35	Flux-based classification of reactions reveals a functional bow-tie organization of complex metabolic networks. Physical Review E, 2013, 87, 052708.	0.8	10
36	Virtual screening of phytochemicals from Indian medicinal plants against the endonuclease domain of SFTS virus L polymerase. RSC Advances, 2022, 12, 6234-6247.	1.7	10

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37	Cloning and Targeted Disruption of Two Lipopolysaccharide Biosynthesis Genes, <i>kdsA</i> and <i>waaG</i>, of <i>Pseudomonas aeruginosa</i> PAO1 by Site-Directed Mutagenesis. Journal of Molecular Microbiology and Biotechnology, 2010, 19, 169-179.	1.0	8
38	An atlas of fragrance chemicals in children's products. Science of the Total Environment, 2022, 818, 151682.	3.9	7
39	Degree difference: a simple measure to characterize structural heterogeneity in complex networks. Scientific Reports, 2020, 10, 21348.	1.6	6
40	Network-centric Indicators for Fragility in Global Financial Indices. Frontiers in Physics, 2021, 8, .	1.0	6
41	NeurotoxKb 1.0: Compilation, curation and exploration of a knowledgebase of environmental neurotoxicants specific to mammals. Chemosphere, 2021, 278, 130387.	4.2	6
42	Statistical Physics Methods Provide the Exact Solution to a Long-Standing Problem of Genetics. Physical Review Letters, 2015, 114, 238101.	2.9	5
43	Edge-based analysis of networks: curvatures of graphs and hypergraphs. Theory in Biosciences, 2020, 139, 337-348.	0.6	5
44	Reprogramming of microRNA expression via E2F1 downregulation promotes Salmonella infection both in infected and bystander cells. Nature Communications, 2021, 12, 3392.	5.8	5
45	A Simple Differential Geometry for Networks and Its Generalizations. Studies in Computational Intelligence, 2020, , 943-954.	0.7	5
46	Forman-Ricci curvature and persistent homology of unweighted complex networks. Chaos, Solitons and Fractals, 2020, 140, 110260.	2.5	4
47	Graph Ricci curvatures reveal atypical functional connectivity in autism spectrum disorder. Scientific Reports, 2022, 12, 8295.	1.6	4
48	Preferential attachment renders an evolving network of populations robust against crashes. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 1535-1545.	1.2	3
49	Haldane, Waddington and recombinant inbred lines: extension of their work to any number of genes. Journal of Genetics, 2017, 96, 795-800.	0.4	3
50	Learning and structure of neuronal networks. Pramana - Journal of Physics, 2011, 77, 817-826.	0.9	2
51	Network approach towards understanding the crazing in glassy amorphous polymers. Journal of Statistical Mechanics: Theory and Experiment, 2018, 2018, 043305.	0.9	2
52	Shining fresh light on the evolution of photosynthesis. ELife, 2013, 2, e01403.	2.8	2
53	Challenges in experimental data integration within genome-scale metabolic models. Algorithms for Molecular Biology, 2010, 5, 20.	0.3	1
54	Phenotypic constraints promote latent versatility and carbon efficiency in metabolic networks. Physical Review E, 2015, 92, 012809.	0.8	1

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55	Network biology approach to human tissue-specific chemical exposome. Journal of Steroid Biochemistry and Molecular Biology, 2021, 214, 105998.	1.2	1
56	A Poset-Based Approach to Curvature of Hypergraphs. Symmetry, 2022, 14, 420.	1.1	0
57	A preference for link operator functions can drive Boolean biological networks towards critical dynamics. Journal of Biosciences, 2022, 47, 1.	0.5	0