Aniruddha Datta

List of Publications by Year
in descending order

93 papers	1,345 citations	361413 20 h-index	377865 34 g-index
96 all docs	96 docs citations	96 times ranked	888 citing authors

#	Article	IF	Citations
1	External Control in Markovian Genetic Regulatory Networks. Machine Learning, 2003, 52, 169-191.	5.4	215
2	Industrial alarm systems: Challenges and opportunities. Journal of Loss Prevention in the Process Industries, 2017, 50, 23-36.	3.3	101
3	From biological pathways to regulatory networks. Molecular BioSystems, 2011, 7, 843-851.	2.9	88
4	Adaptive internal model control: Design and stability analysis. Automatica, 1996, 32, 261-266.	5.0	84
5	Robust Intervention in Probabilistic Boolean Networks. IEEE Transactions on Signal Processing, 2008, 56, 1280-1294.	5.3	60
6	Intervention in Gene Regulatory Networks via a Stationary Mean-First-Passage-Time Control Policy. IEEE Transactions on Biomedical Engineering, 2008, 55, 2319-2331.	4.2	46
7	Grand Challenges in Interfacing Engineering With Life Sciences and Medicine. IEEE Transactions on Biomedical Engineering, 2013, 60, 589-598.	4.2	42
8	Optimal Intervention in Asynchronous Genetic Regulatory Networks. IEEE Journal on Selected Topics in Signal Processing, 2008, 2, 412-423.	10.8	40
9	Bayesian Robustness in the Control of Gene Regulatory Networks. IEEE Transactions on Signal Processing, 2009, 57, 3667-3678.	5.3	34
10	Stationary and structural control in gene regulatory networks: basic concepts. International Journal of Systems Science, 2010, 41, 5-16.	5.5	33
11	Cryptotanshinone Induces Cell Death in Lung Cancer by Targeting Aberrant Feedback Loops. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 2430-2438.	6.3	29
12	Enhanced Xanthotoxin Content in Regenerating Cultures ofAmmi majusand Micropropagation. Planta Medica, 1995, 61, 481-482.	1.3	26
13	Bayesian Inference Identifies Combination Therapeutic Targets in Breast Cancer. IEEE Transactions on Biomedical Engineering, 2019, 66, 2684-2692.	4.2	26
14	Generalizations of the Hermite–Biehler theorem: the complex case. Linear Algebra and Its Applications, 2000, 320, 23-36.	0.9	25
15	Adaptive internal model control: the discrete-time case. International Journal of Adaptive Control and Signal Processing, 2001, 15, 15-36.	4.1	24
16	Comparative non-cholinergic neurotoxic effects of paraoxon and diisopropyl fluorophosphate (DFP) on human neuroblastoma and astrocytoma cell lines. Toxicology and Applied Pharmacology, 2007, 219, 162-171.	2.8	23
17	A model-free design of reduced-order controllers and application to a DC servomotor. Automatica, 2014, 50, 2142-2149.	5.0	23
18	Optimal Intervention Strategies for Therapeutic Methods With Fixed-Length Duration of Drug Effectiveness. IEEE Transactions on Signal Processing, 2012, 60, 4930-4944.	5.3	22

#	ARTICLE	IF	CITATIONS
19	A data-driven alarm and event management framework. Journal of Loss Prevention in the Process Industries, 2019, 62, 103959.	3.3	22
20	Adaptive internal model control: H2 optimization for stable plants. Automatica, 1998, 34, 75-82.	5.0	21
21	Intervention in Probabilistic Gene Regulatory Networks. Current Bioinformatics, 2006, 1, 167-184.	1.5	21
22	Design of a decentralized detection of interacting LTI systems. Mathematical Problems in Engineering, 2002, 8, 233-248.	1.1	20
23	FAULT DETECTION AND INTERVENTION IN BIOLOGICAL FEEDBACK NETWORKS. Journal of Biological Systems, 2012, 20, 441-453.	1.4	20
24	Towards targeted combinatorial therapy design for the treatment of castration-resistant prostate cancer. BMC Bioinformatics, 2017, 18, 134.	2.6	19
25	Recent Advances in Intervention in Markovian Regulatory Networks. Current Genomics, 2009, 10, 463-477.	1.6	16
26	Optimal Intervention in Markovian Gene Regulatory Networks With Random-Length Therapeutic Response to Antitumor Drug. IEEE Transactions on Biomedical Engineering, 2013, 60, 3542-3552.	4.2	16
27	A Model for Cancer Tissue Heterogeneity. IEEE Transactions on Biomedical Engineering, 2014, 61, 966-974.	4.2	14
28	An in-silico study examining the induction of apoptosis by Cryptotanshinone in metastatic melanoma cell lines. BMC Cancer, 2018, 18, 855.	2.6	14
29	Understanding the Bioinformatics Challenges of Integrating Genomics Into Healthcare. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 1672-1683.	6.3	12
30	In Silico Design and Experimental Validation of Combination Therapy for Pancreatic Cancer. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2020, 17, 1010-1018.	3.0	12
31	Bayesian modeling of plant drought resistance pathway. BMC Plant Biology, 2019, 19, 96.	3.6	11
32	Hypoxia Stress Response Pathways: Modeling and Targeted Therapy. IEEE Journal of Biomedical and Health Informatics, 2017, 21, 875-885.	6.3	10
33	A Survey of Software and Hardware Approaches to Performing Read Alignment in Next Generation Sequencing. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2017, 14, 1202-1213.	3.0	9
34	Using Boolean Logic Modeling of Gene Regulatory Networks to Exploit the Links Between Cancer and Metabolism for Therapeutic Purposes. IEEE Journal of Biomedical and Health Informatics, 2016, 20, 399-407.	6.3	8
35	A Bayesian Network-Based Approach to Selection of Intervention Points in the Mitogen-Activated Protein Kinase Plant Defense Response Pathway. Journal of Computational Biology, 2017, 24, 327-339.	1.6	8
36	A Measurement-Based Approach for Speed Control of Induction Machines. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2014, 2, 308-318.	5.4	7

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37	Linear circuits: a measurement‐based approach. International Journal of Circuit Theory and Applications, 2015, 43, 205-232.	2.0	7
38	Integration of data analytics with cloud services for safer process systems, application examples and implementation challenges. Journal of Loss Prevention in the Process Industries, 2020, 68, 104316.	3.3	7
39	On the transient behaviour in discrete-time model reference adaptive control: Analysis and possible improvement. Automatica, 1994, 30, 527-531.	5.0	6
40	From biological pathways to regulatory networks. , 2010, , .		6
41	A Measurement‐Based Approach for Designing Fixed‐Order Controllers for Unknown Closed‐Loop Architecture. Asian Journal of Control, 2016, 18, 686-698.	3.0	6
42	Simulating variance heterogeneity in quantitative genome wide association studies. BMC Bioinformatics, 2018, 19, 72.	2.6	6
43	Targeting oncogenic mutations in colorectal cancer using cryptotanshinone. PLoS ONE, 2021, 16, e0247190.	2.5	6
44	Bayesian Network Analysis of Lysine Biosynthesis Pathway in Rice. Inventions, 2021, 6, 37.	2.5	6
45	Network modeling and inference of peroxisome proliferator-activated receptor pathway in high fat diet-linked obesity. Journal of Theoretical Biology, 2021, 519, 110647.	1.7	6
46	In Vitro Flowering and High Xanthotoxin in Ammi majus L.. Journal of Plant Biochemistry and Biotechnology, 1995, 4, 73-76.	1.7	5
47	A Bayesian approach to determine the composition of heterogeneous cancer tissue. BMC Bioinformatics, 2018, 19, 90.	2.6	5
48	A Gaussian Mixture-Model Exploiting Pathway Knowledge for Dissecting Cancer Heterogeneity. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2019, 17, 1-1.	3.0	5
49	Drug target ranking for glioblastoma multiforme. BMC Biomedical Engineering, 2021, 3, 7.	2.6	5
50	Detecting drought regulators using stochastic inference in Bayesian networks. PLoS ONE, 2021, 16, e0255486.	2.5	5
51	Anti-tumor effects of cryptotanshinone ($C19H20O3$) in human osteosarcoma cell lines. Biomedicine and Pharmacotherapy, 2022, 150, 112993.	5.6	5
52	Robust Intervention in Probabilistic Boolean Networks. Proceedings of the American Control Conference, 2007, , .	0.0	4
53	Bayesian Robustness in the Control of Gene Regulatory Networks. , 2007, , .		4
54	Sampling-rate-dependent probabilistic Boolean networks. Journal of Theoretical Biology, 2009, 261, 540-547.	1.7	4

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55	Generating Stochastic Gene Regulatory Networks Consistent With Pathway Information and Steady-State Behavior. IEEE Transactions on Biomedical Engineering, 2012, 59, 1701-1710.	4.2	4
56	A nonparametric approach to design robust controllers for uncertain systems: Application to an air flow heating system. Journal of Process Control, 2015, 36, 1-10.	3.3	4
57	Tissue specific expression of UMAMIT amino acid transporters in wheat. Scientific Reports, 2022, 12, 348.	3.3	4
58	Directly computable L_2 and L^∞ performance bounds for morse's dynamic certainty equivalence adaptive controller. International Journal of Adaptive Control and Signal Processing, 1995, 9, 423-432.	4.1	3
59	A measurement-based technique for designing fixed-order RST controllers and application to a coupled water tank system. Systems Science and Control Engineering, 2014, 2, 484-492.	3.1	3
60	Emergence of DSS efforts in genomics: Past contributions and challenges. Decision Support Systems, 2019, 116, 77-90.	5.9	3
61	Integrative Network Modeling Highlights the Crucial Roles of Rho-GDI Signaling Pathway in the Progression of non-Small Cell Lung Cancer. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 4785-4793.	6.3	3
62	Synthesizing Boolean networks with a given attractor structure. , 2006, , .		2
63	Which Control Gene Should be Used in Genetic Regulatory Networks?. , 2007, , .		2
64	Optimal intervention strategies for cyclic therapeutic methods with fixed-length duration of effect. , 2011, , .		2
65	Determining the relative prevalence of different subpopulations in heterogeneous cancer tissue. , 2012, , .		2
66	Model-Free Controller Tuning Based on DFT Processing: Application to Induction Motor Drives. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2014, 2, 1013-1023.	5.4	2
67	Adaptive Controller Design for Unknown Systems Using Measured Data. Asian Journal of Control, 2016, 18, 1453-1466.	3.0	2
68	Fused Graphical Lasso Recovers Flowering Time Mutation Genes in Arabidopsis thaliana. Inventions, 2021, 6, 52.	2.5	2
69	Control in a family of Boolean networks. , 2006, , .		1
70	Optimal intervention in semi-Markov-based asynchronous genetic regulatory networks. , 2008, , .		1
71	Modelling oxidative stress response pathways. , 2011, , .		1
72	A data-based approach for designing adaptive controllers for unknown systems. , 2014, , .		1

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73	Deep Sequencing Data Analysis. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2018, 15, 482-483.	3.0	1
74	Comprehensive live-cell imaging analysis of cryptotanshinone and synergistic drug-screening effects in various human and canine cancer cell lines. PLoS ONE, 2021, 16, e0236074.	2.5	1
75	Altering steady-state probabilities in probabilistic Boolean networks. , 2006, , .		0
76	Robustness of Intervention Strategies for Probabilistic Boolean Networks. , 2007, , .		0
77	Modeling cyclic therapy in gene regulatory networks. , 2008, , .		0
78	Comparison of robust strategies for the control of gene regulatory networks. , 2008, , .		0
79	Constrained intervention in a cancerous mammalian cell cycle network. , 2008, , .		0
80	Mean first-passage time control policy versus reinforcement-learning control policy in gene regulatory networks. , 2008, , .		0
81	Quantification of data extraction noise in probabilistic Boolean Network modeling. , 2009, , .		0
82	Modeling cyclic and acyclic therapeutic methods with persistent intervention effect in probabilistic Boolean networks. , 2011, , .		0
83	Combination therapy design for cancer: A digital systems approach. , 2011, , .		0
84	Boolean network model of oxidative stress response pathways. , 2012, , .		0
85	INTERVENTION IN BIOLOGICAL PHENOMENA REPRESENTED BY GENETIC REGULATORY NETWORKS: A VARIABLE STRUCTURE APPROACH. Journal of Biological Systems, 2012, 20, 327-347.	1.4	0
86	Optimal therapeutic methods with random-length response in probabilistic boolean networks. , 2012, , .		0
87	Optimal cancer therapy based on a tumor growth inhibition model. , 2012, , .		0
88	On the modeling of heterogeneity in cancer tissue. , 2013, , .		0
89	On the modeling of heterogeneity in cancer tissue. , 2013, , .		0
90	De novo transcriptome assemblies and annotation for pacifie whiteleg shrimp. , 2014, , .		0

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91	A new measurement based approach to the study of biological systems. , 2014, , .		0
92	Fast and efficient genotype encoding using sparse 2D bitmaps for database-driven genomics applications. , 2018, , .		0
93	A GPU-CPU heterogeneous algorithm for NGS read alignment. International Journal of Computational Biology and Drug Design, 2018, 11, 52.	0.3	0