

Ankit Gupta

List of Publications by Year in descending order

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Version: 2024-02-01

29
papers

1,058
citations

840776

11
h-index

610901

24
g-index

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all docs

36
docs citations

36
times ranked

661
citing authors

#	ARTICLE	IF	CITATIONS
1	Antithetic Integral Feedback Ensures Robust Perfect Adaptation in Noisy Biomolecular Networks. <i>Cell Systems</i> , 2016, 2, 15-26.	6.2	320
2	A universal biomolecular integral feedback controller for robust perfect adaptation. <i>Nature</i> , 2019, 570, 533-537.	27.8	249
3	A Scalable Computational Framework for Establishing Long-Term Behavior of Stochastic Reaction Networks. <i>PLoS Computational Biology</i> , 2014, 10, e1003669.	3.2	77
4	Antithetic proportional-integral feedback for reduced variance and improved control performance of stochastic reaction networks. <i>Journal of the Royal Society Interface</i> , 2018, 15, 20180079.	3.4	71
5	A finite state projection algorithm for the stationary solution of the chemical master equation. <i>Journal of Chemical Physics</i> , 2017, 147, 154101.	3.0	49
6	Adaptive hybrid simulations for multiscale stochastic reaction networks. <i>Journal of Chemical Physics</i> , 2015, 142, 034118.	3.0	43
7	Noise Induces the Population-Level Entrainment of Incoherent, Uncoupled Intracellular Oscillators. <i>Cell Systems</i> , 2016, 3, 521-531.e13.	6.2	27
8	Unbiased Estimation of Parameter Sensitivities for Stochastic Chemical Reaction Networks. <i>SIAM Journal of Scientific Computing</i> , 2013, 35, A2598-A2620.	2.8	20
9	An efficient and unbiased method for sensitivity analysis of stochastic reaction networks. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20140979.	3.4	19
10	Computational Identification of Irreducible State-Spaces for Stochastic Reaction Networks. <i>SIAM Journal on Applied Dynamical Systems</i> , 2018, 17, 1213-1266.	1.6	17
11	An antithetic integral rein controller for bio-molecular networks. , 2019, , .		17
12	DeepCME: A deep learning framework for computing solution statistics of the chemical master equation. <i>PLoS Computational Biology</i> , 2021, 17, e1009623.	3.2	17
13	Sensitivity analysis for stochastic chemical reaction networks with multiple time-scales. <i>Electronic Journal of Probability</i> , 2014, 19, .	1.0	16
14	A hidden integral structure endows absolute concentration robust systems with resilience to dynamical concentration disturbances. <i>Journal of the Royal Society Interface</i> , 2020, 17, 20200437.	3.4	15
15	The probability distribution of the reconstructed phylogenetic tree with occurrence data. <i>Journal of Theoretical Biology</i> , 2020, 488, 110115.	1.7	13
16	Dynamic disorder in simple enzymatic reactions induces stochastic amplification of substrate. <i>Journal of the Royal Society Interface</i> , 2017, 14, 20170311.	3.4	12
17	The probability distribution of the ancestral population size conditioned on the reconstructed phylogenetic tree with occurrence data. <i>Journal of Theoretical Biology</i> , 2021, 509, 110400.	1.7	12
18	The Occurrence Birth-Death Process for Combined-Evidence Analysis in Macroevolution and Epidemiology. <i>Systematic Biology</i> , 2022, 71, 1440-1452.	5.6	10

#	ARTICLE	IF	CITATIONS
19	Determining the long-term behavior of cell populations: A new procedure for detecting ergodicity in large stochastic reaction networks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 1711-1716.	0.4	8
20	Estimation of Parameter Sensitivities for Stochastic Reaction Networks Using Tau-Leap Simulations. SIAM Journal on Numerical Analysis, 2018, 56, 1134-1167.	2.3	7
21	Sensitivity Analysis for Multiscale Stochastic Reaction Networks Using Hybrid Approximations. Bulletin of Mathematical Biology, 2019, 81, 3121-3158.	1.9	7
22	Stochastic model for cell polarity. Annals of Applied Probability, 2012, 22, .	1.3	6
23	Stochastic filtering for multiscale stochastic reaction networks based on hybrid approximations. Journal of Computational Physics, 2022, 467, 111441.	3.8	6
24	A finite state projection method for steady-state sensitivity analysis of stochastic reaction networks. Journal of Chemical Physics, 2019, 150, 134101.	3.0	4
25	Bayesian Parameter Estimation for Stochastic Reaction Networks from Steady-State Observations. Lecture Notes in Computer Science, 2019, , 342-346.	1.3	2
26	The Fleming-Viot limit of an interacting spatial population with fast density regulation. Electronic Journal of Probability, 2012, 17, .	1.0	0
27	Variance reduction in stochastic gene expression under integral feedback control. , 2018, , .		0
28	Quantification of loading effects in interconnections of stochastic reaction networks. , 2019, , .		0
29	A linear constrained integral feedback for a class of reaction systems with absolute concentration robustness. , 2019, , .		0