

Philipp Thomas

List of Publications by Year in descending order

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Version: 2024-02-01

30
papers

1,393
citations

394286

19
h-index

501076

28
g-index

39
all docs

39
docs citations

39
times ranked

1185
citing authors

#	ARTICLE	IF	CITATIONS
1	Stochastic Modeling Approaches for Single-Cell Analyses. , 2021, , 45-55.		1
2	Stationary Distributions of Continuous-Time Markov Chains: A Review of Theory and Truncation-Based Approximations. SIAM Review, 2021, 63, 3-64.	4.2	15
3	Approximations of Countably Infinite Linear Programs over Bounded Measure Spaces. SIAM Journal on Optimization, 2021, 31, 604-625.	1.2	2
4	Coordination of gene expression noise with cell size: analytical results for agent-based models of growing cell populations. Journal of the Royal Society Interface, 2021, 18, 20210274.	1.5	33
5	bayNorm: Bayesian gene expression recovery, imputation and normalization for single-cell RNA-sequencing data. Bioinformatics, 2020, 36, 1174-1181.	1.8	79
6	Computation of Single-Cell Metabolite Distributions Using Mixture Models. Frontiers in Cell and Developmental Biology, 2020, 8, 614832.	1.8	13
7	Bounding the stationary distributions of the chemical master equation via mathematical programming. Journal of Chemical Physics, 2019, 151, 034109.	1.2	18
8	The Exit Time Finite State Projection Scheme: Bounding Exit Distributions and Occupation Measures of Continuous-Time Markov Chains. SIAM Journal of Scientific Computing, 2019, 41, A748-A769.	1.3	13
9	Stochastic modelling reveals mechanisms of metabolic heterogeneity. Communications Biology, 2019, 2, 108.	2.0	44
10	Intrinsic and extrinsic noise of gene expression in lineage trees. Scientific Reports, 2019, 9, 474.	1.6	50
11	Cell size control driven by the circadian clock and environment in cyanobacteria. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E11415-E11424.	3.3	46
12	Sources, propagation and consequences of stochasticity in cellular growth. Nature Communications, 2018, 9, 4528.	5.8	76
13	Analysis of Cell Size Homeostasis at the Single-Cell and Population Level. Frontiers in Physics, 2018, 6, .	1.0	29
14	Making sense of snapshot data: ergodic principle for clonal cell populations. Journal of the Royal Society Interface, 2017, 14, 20170467.	1.5	59
15	Mycobacteria Modify Their Cell Size Control under Sub-Optimal Carbon Sources. Frontiers in Cell and Developmental Biology, 2017, 5, 64.	1.8	48
16	Distribution Approximations for the Chemical Master Equation: Comparison of the Method of Moments and the System Size Expansion. Contributions in Mathematical and Computational Sciences, 2017, , 39-66.	0.3	16
17	Stochastic Simulation of Biomolecular Networks in Dynamic Environments. PLoS Computational Biology, 2016, 12, e1004923.	1.5	78
18	Inference for Stochastic Chemical Kinetics Using Moment Equations and System Size Expansion. PLoS Computational Biology, 2016, 12, e1005030.	1.5	77

#	ARTICLE	IF	CITATIONS
19	Approximate probability distributions of the master equation. <i>Physical Review E</i> , 2015, 92, 012120.	0.8	31
20	System size expansion using Feynman rules and diagrams. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2014, 47, 455007.	0.7	15
21	Phenotypic switching in gene regulatory networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 6994-6999.	3.3	153
22	Signatures of nonlinearity in single cell noise-induced oscillations. <i>Journal of Theoretical Biology</i> , 2013, 335, 222-234.	0.8	45
23	How reliable is the linear noise approximation of gene regulatory networks?. <i>BMC Genomics</i> , 2013, 14, S5.	1.2	31
24	Computation of biochemical pathway fluctuations beyond the linear noise approximation using iNA. , 2012, , .		13
25	Rigorous elimination of fast stochastic variables from the linear noise approximation using projection operators. <i>Physical Review E</i> , 2012, 86, 041110.	0.8	44
26	The slow-scale linear noise approximation: an accurate, reduced stochastic description of biochemical networks under timescale separation conditions. <i>BMC Systems Biology</i> , 2012, 6, 39.	3.0	108
27	Intrinsic Noise Analyzer: A Software Package for the Exploration of Stochastic Biochemical Kinetics Using the System Size Expansion. <i>PLoS ONE</i> , 2012, 7, e38518.	1.1	43
28	How accurate are the nonlinear chemical Fokker-Planck and chemical Langevin equations?. <i>Journal of Chemical Physics</i> , 2011, 135, 084103.	1.2	99
29	Communication: Limitations of the stochastic quasi-steady-state approximation in open biochemical reaction networks. <i>Journal of Chemical Physics</i> , 2011, 135, 181103.	1.2	51
30	Stochastic theory of large-scale enzyme-reaction networks: Finite copy number corrections to rate equation models. <i>Journal of Chemical Physics</i> , 2010, 133, 195101.	1.2	36