Philipp Thomas

List of Publications by Year in descending order

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30	1,393	394421 19	501196 28
papers	citations	h-index	g-index

39	39	39	1185
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Phenotypic switching in gene regulatory networks. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6994-6999.	7.1	153
2	The slow-scale linear noise approximation: an accurate, reduced stochastic description of biochemical networks under timescale separation conditions. BMC Systems Biology, 2012, 6, 39.	3.0	108
3	How accurate are the nonlinear chemical Fokker-Planck and chemical Langevin equations?. Journal of Chemical Physics, 2011, 135, 084103.	3.0	99
4	bayNorm: Bayesian gene expression recovery, imputation and normalization for single-cell RNA-sequencing data. Bioinformatics, 2020, 36, 1174-1181.	4.1	79
5	Stochastic Simulation of Biomolecular Networks in Dynamic Environments. PLoS Computational Biology, 2016, 12, e1004923.	3.2	78
6	Inference for Stochastic Chemical Kinetics Using Moment Equations and System Size Expansion. PLoS Computational Biology, 2016, 12, e1005030.	3.2	77
7	Sources, propagation and consequences of stochasticity in cellular growth. Nature Communications, 2018, 9, 4528.	12.8	76
8	Making sense of snapshot data: ergodic principle for clonal cell populations. Journal of the Royal Society Interface, 2017, 14, 20170467.	3.4	59
9	Communication: Limitations of the stochastic quasi-steady-state approximation in open biochemical reaction networks. Journal of Chemical Physics, 2011, 135, 181103.	3.0	51
10	Intrinsic and extrinsic noise of gene expression in lineage trees. Scientific Reports, 2019, 9, 474.	3.3	50
11	Mycobacteria Modify Their Cell Size Control under Sub-Optimal Carbon Sources. Frontiers in Cell and Developmental Biology, 2017, 5, 64.	3.7	48
12	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.	7.1	46
13	Signatures of nonlinearity in single cell noise-induced oscillations. Journal of Theoretical Biology, 2013, 335, 222-234.	1.7	45
14	Rigorous elimination of fast stochastic variables from the linear noise approximation using projection operators. Physical Review E, 2012, 86, 041110.	2.1	44
15	Stochastic modelling reveals mechanisms of metabolic heterogeneity. Communications Biology, 2019, 2, 108.	4.4	44
16	Intrinsic Noise Analyzer: A Software Package for the Exploration of Stochastic Biochemical Kinetics Using the System Size Expansion. PLoS ONE, 2012, 7, e38518.	2.5	43
17	Stochastic theory of large-scale enzyme-reaction networks: Finite copy number corrections to rate equation models. Journal of Chemical Physics, 2010, 133, 195101.	3.0	36
18	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.	3.4	33

#	Article	IF	Citations
19	How reliable is the linear noise approximation of gene regulatory networks?. BMC Genomics, 2013, 14, S5.	2.8	31
20	Approximate probability distributions of the master equation. Physical Review E, 2015, 92, 012120.	2.1	31
21	Analysis of Cell Size Homeostasis at the Single-Cell and Population Level. Frontiers in Physics, 2018, 6, .	2.1	29
22	Bounding the stationary distributions of the chemical master equation via mathematical programming. Journal of Chemical Physics, 2019, 151, 034109.	3.0	18
23	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
24	System size expansion using Feynman rules and diagrams. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 455007.	2.1	15
25	Stationary Distributions of Continuous-Time Markov Chains: A Review of Theory and Truncation-Based Approximations. SIAM Review, 2021, 63, 3-64.	9.5	15
26	Computation of biochemical pathway fluctuations beyond the linear noise approximation using iNA. , 2012, , .		13
27	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.	2.8	13
28	Computation of Single-Cell Metabolite Distributions Using Mixture Models. Frontiers in Cell and Developmental Biology, 2020, 8, 614832.	3.7	13
29	Approximations of Countably Infinite Linear Programs over Bounded Measure Spaces. SIAM Journal on Optimization, 2021, 31, 604-625.	2.0	2
30	Stochastic Modeling Approaches for Single-Cell Analyses. , 2021, , 45-55.		1