Yang Cao

List of Publications by Year in descending order

		471061	360668
47	2,685	17	35
papers	citations	h-index	g-index

48	48	48	1429
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Modeling the temporal dynamics of master regulators and CtrA proteolysis in Caulobacter crescentus cell cycle. PLoS Computational Biology, 2022, 18, e1009847.	1.5	1
2	A spatiotemporal model of polarity and spatial gradient establishment in caulobacter crescentus. , 2021, , .		1
3	Computational modeling of unphosphorylated CtrA:Cori binding in the Caulobacter cell cycle. IScience, 2021, 24, 103413.	1.9	2
4	Finding acceptable parameter regions of stochastic Hill functions for multisite phosphorylation mechanism. Journal of Chemical Physics, 2020, 152, 124108.	1.2	0
5	A hybrid stochastic model of the budding yeast cell cycle. Npj Systems Biology and Applications, 2020, 6, 7.	1.4	5
6	Cell cycle control and environmental response by second messengers in Caulobacter crescentus. BMC Bioinformatics, 2020, 21, 408.	1.2	9
7	Accuracy Analysis of Hybrid Stochastic Simulation Algorithm on Linear Chain Reaction Systems. Bulletin of Mathematical Biology, 2019, 81, 3024-3052.	0.9	6
8	Stochastic Simulation of Biochemical Systems: In Memory of Dan T. Gillespieâ€™s contributions. Bulletin of Mathematical Biology, 2019, 81, 2819-2821.	0.9	0
9	Analysis and remedy of negativity problem in hybrid stochastic simulation algorithm and its application. BMC Bioinformatics, 2019, 20, 315.	1.2	4
10	A stochastic model of size control in the budding yeast cell cycle. BMC Bioinformatics, 2019, 20, 322.	1.2	6
11	Parameter estimation of stochastic models based on limited data. ACM SIGBioinformatics Record, 2018, 7, 1-3.	0.3	4
12	Reaction time for trimolecular reactions in compartment-based reaction-diffusion models. Journal of Chemical Physics, 2018, 148, 204108.	1.2	1
13	Efficient implementation of the hybrid method for stochastic simulation of biochemical systems. Journal of Micromechanics and Molecular Physics, 2017, 02, 1750006.	0.7	6
14	Modelling Propagation of Public Opinions on Microblogging Big Data Using Sentiment Analysis and Compartmental Models. International Journal on Semantic Web and Information Systems, 2017, 13, 11-27.	2.2	11
15	Hybrid ODE/SSA methods and the cell cycle model. AIP Conference Proceedings, 2017, , .	0.3	0
16	Stochastic Modeling and Simulation of Reaction-Diffusion System with Hill Function Dynamics. , 2016, , .		1
17	A stochastic spatiotemporal model of a response-regulator network in theCaulobacter crescentuscell cycle. Physical Biology, 2016, 13, 035007.	0.8	6
18	Two-dimensional model of bipolar PopZ polymerization in caulobacter crescentus. , 2015, , .		1

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19	The Abridgment and Relaxation Time for a Linear Multi-Scale Model Based on Multiple Site Phosphorylation. PLoS ONE, 2015, 10, e0133295.	1.1	4
20	A Framework to Analyze the Performance of Load Balancing Schemes for Ensembles of Stochastic Simulations. International Journal of Parallel Programming, 2015, 43, 597-630.	1.1	5
21	Stochastic Turing Patterns: Analysis of Compartment-Based Approaches. Bulletin of Mathematical Biology, 2014, 76, 3051-3069.	0.9	18
22	Multigrid discretization method for PopZ polarization in Caulobacter cell cycle. , 2013, , .		0
23	Approximation of a multi-scale model based on multiple site phosphorylation. , 2012, , .		0
24	The effect of unhealthy β-cells in synchronized insulin secretion. , 2012, , .		0
25	Hybrid modeling and simulation of stochastic effects on progression through the eukaryotic cell cycle. Journal of Chemical Physics, 2012, 136, 034105.	1.2	31
26	Michaelisâ€“Menten speeds up tau-leaping under a wide range of conditions. Journal of Chemical Physics, 2011, 134, 134112.	1.2	9
27	Stochastic exit from mitosis in budding yeast. Cell Cycle, 2011, 10, 999-1009.	1.3	26
28	Stiffness detection and reduction in discrete stochastic simulation of biochemical systems. Journal of Chemical Physics, 2011, 134, 054105.	1.2	7
29	Stiffness detection and reduction in discrete stochastic simulation of biochemical systems. , 2010, , .		0
30	Hybrid Modeling and Simulation of Insulin Secretion Pathway in Pancreatic Islets. , 2010, , .		0
31	Chapter 5 Discrete Stochastic Simulation Methods for Chemically Reacting Systems. Methods in Enzymology, 2009, 454, 115-140.	0.4	19
32	The subtle business of model reduction for stochastic chemical kinetics. Journal of Chemical Physics, 2009, 130, 064103.	1.2	24
33	Slow-scale tau-leaping method. Computer Methods in Applied Mechanics and Engineering, 2008, 197, 3472-3479.	3.4	27
34	Algorithms and Software for Stochastic Simulation of Biochemical Reacting Systems. Biotechnology Progress, 2008, 24, 56-61.	1.3	119
35	Stochastic Simulation of Enzyme-Catalyzed Reactions with Disparate Timescales. Biophysical Journal, 2008, 95, 3563-3574.	0.2	53
36	Adaptive aggregation method for the chemical master equation. , 2008, , .		0

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37	Adaptive explicit-implicit tau-leaping method with automatic tau selection. Journal of Chemical Physics, 2007, 126, 224101.	1.2	137
38	Efficient step size selection for the tau-leaping simulation method. Journal of Chemical Physics, 2006, 124, 044109.	1.2	470
39	Accuracy limitations and the measurement of errors in the stochastic simulation of chemically reacting systems. Journal of Computational Physics, 2006, 212, 6-24.	1.9	80
40	Multiscale stochastic simulation algorithm with stochastic partial equilibrium assumption for chemically reacting systems. Journal of Computational Physics, 2005, 206, 395-411.	1.9	161
41	Accelerated stochastic simulation of the stiff enzyme-substrate reaction. Journal of Chemical Physics, 2005, 123, 144917.	1.2	67
42	Consistency and Stability of Tau-Leaping Schemes for Chemical Reaction Systems. Multiscale Modeling and Simulation, 2005, 4, 867-895.	0.6	66
43	The slow-scale stochastic simulation algorithm. Journal of Chemical Physics, 2005, 122, 014116.	1.2	386
44	Avoiding negative populations in explicit Poisson tau-leaping. Journal of Chemical Physics, 2005, 123, 054104.	1.2	178
45	Efficient formulation of the stochastic simulation algorithm for chemically reacting systems. Journal of Chemical Physics, 2004, 121, 4059-4067.	1.2	337
46	The numerical stability of leaping methods for stochastic simulation of chemically reacting systems. Journal of Chemical Physics, 2004, 121, 12169.	1.2	54
47	Stiffness in stochastic chemically reacting systems: The implicit tau-leaping method. Journal of Chemical Physics, 2003, 119, 12784-12794.	1.2	343