

Linda R Petzold

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

71
papers

2,085
citations

20
h-index

45
g-index

78
ext. papers

2,592
ext. citations

4.8
avg, IF

5.13
L-index

#	Paper	IF	Citations
71	Efficient formulation of the stochastic simulation algorithm for chemically reacting systems. <i>Journal of Chemical Physics</i> , 2004 , 121, 4059-67	3.9	286
70	Improved leap-size selection for accelerated stochastic simulation. <i>Journal of Chemical Physics</i> , 2003 , 119, 8229-8234	3.9	285
69	Perspective: Stochastic algorithms for chemical kinetics. <i>Journal of Chemical Physics</i> , 2013 , 138, 170901	3.9	209
68	StochKit2: software for discrete stochastic simulation of biochemical systems with events. <i>Bioinformatics</i> , 2011 , 27, 2457-8	7.2	158
67	Integrating machine learning and multiscale modeling-perspectives, challenges, and opportunities in the biological, biomedical, and behavioral sciences. <i>Npj Digital Medicine</i> , 2019 , 2, 115	15.7	127
66	Adaptive explicit-implicit tau-leaping method with automatic tau selection. <i>Journal of Chemical Physics</i> , 2007 , 126, 224101	3.9	105
65	Optimal control of mixing in Stokes fluid flows. <i>Journal of Fluid Mechanics</i> , 2007 , 580, 261-281	3.7	75
64	Regulation of cell-type-specific transcriptomes by microRNA networks during human brain development. <i>Nature Neuroscience</i> , 2018 , 21, 1784-1792	25.5	72
63	Spatial stochastic dynamics enable robust cell polarization. <i>PLoS Computational Biology</i> , 2013 , 9, e1003139	13.9	51
62	Reaction-diffusion master equation in the microscopic limit. <i>Physical Review E</i> , 2012 , 85, 042901	2.4	50
61	Functional network inference of the suprachiasmatic nucleus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 4512-7	11.5	39
60	Stochastic Simulation Service: Bridging the Gap between the Computational Expert and the Biologist. <i>PLoS Computational Biology</i> , 2016 , 12, e1005220	5	37
59	Ontogeny of Circadian Rhythms and Synchrony in the Suprachiasmatic Nucleus. <i>Journal of Neuroscience</i> , 2018 , 38, 1326-1334	6.6	36
58	Reaction rates for mesoscopic reaction-diffusion kinetics. <i>Physical Review E</i> , 2015 , 91, 023312	2.4	32
57	GPU-based simulations of fracture in idealized brick and mortar composites. <i>Journal of the Mechanics and Physics of Solids</i> , 2015 , 80, 68-85	5	31
56	Inferring single-cell gene expression mechanisms using stochastic simulation. <i>Bioinformatics</i> , 2015 , 31, 1428-35	7.2	27
55	Macromolecular Crowding Regulates the Gene Expression Profile by Limiting Diffusion. <i>PLoS Computational Biology</i> , 2016 , 12, e1005122	5	27

54	MOLNs: A CLOUD PLATFORM FOR INTERACTIVE, REPRODUCIBLE, AND SCALABLE SPATIAL STOCHASTIC COMPUTATIONAL EXPERIMENTS IN SYSTEMS BIOLOGY USING PyURDME. <i>SIAM Journal of Scientific Computing</i> , 2016 , 38, C179-C202	2.6	23
53	The role of dimerisation and nuclear transport in the Hes1 gene regulatory network. <i>Bulletin of Mathematical Biology</i> , 2014 , 76, 766-98	2.1	22
52	GillesPy: A Python Package for Stochastic Model Building and Simulation. <i>IEEE Life Sciences Letters</i> , 2016 , 2, 35-38		21
51	Validity conditions for stochastic chemical kinetics in diffusion-limited systems. <i>Journal of Chemical Physics</i> , 2014 , 140, 054111	3.9	19
50	Parallel simulation for a fish schooling model on a general-purpose graphics processing unit. <i>Concurrency Computation Practice and Experience</i> , 2009 , 21, 725-737	1.4	18
49	The impact of stochastic microstructures on the macroscopic fracture properties of brick and mortar composites. <i>Extreme Mechanics Letters</i> , 2015 , 5, 1-9	3.9	17
48	Adaptive algorithms for optimal control of time-dependent partial differential-algebraic equation systems. <i>International Journal for Numerical Methods in Engineering</i> , 2003 , 57, 1457-1469	2.4	17
47	Bayesian inference of elastic properties with resonant ultrasound spectroscopy. <i>Journal of the Acoustical Society of America</i> , 2018 , 143, 71	2.2	16
46	Graph-based semi-supervised learning with genomic data integration using condition-responsive genes applied to phenotype classification. <i>Journal of the American Medical Informatics Association: JAMIA</i> , 2018 , 25, 99-108	8.6	16
45	Accuracy of the Michaelis-Menten approximation when analysing effects of molecular noise. <i>Journal of the Royal Society Interface</i> , 2015 , 12,	4.1	15
44	Mechanical feedback coordinates cell wall expansion and assembly in yeast mating morphogenesis. <i>PLoS Computational Biology</i> , 2018 , 14, e1005940	5	15
43	A framework for discrete stochastic simulation on 3D moving boundary domains. <i>Journal of Chemical Physics</i> , 2016 , 145, 184113	3.9	15
42	The effect of cell geometry on polarization in budding yeast. <i>PLoS Computational Biology</i> , 2018 , 14, e1006241	5.2	14
41	Identification of influential proteins in the classical retinoic acid signaling pathway. <i>Theoretical Biology and Medical Modelling</i> , 2018 , 15, 16	2.3	14
40	In Silico Identification of Microbial Partners to Form Consortia with Anaerobic Fungi. <i>Processes</i> , 2018 , 6, 7	2.9	13
39	Local error estimates for adaptive simulation of the Reaction-Diffusion Master Equation via operator splitting. <i>Journal of Computational Physics</i> , 2014 , 266, 89-100	4.1	12
38	BiP clustering facilitates protein folding in the endoplasmic reticulum. <i>PLoS Computational Biology</i> , 2014 , 10, e1003675	5	12
37	Language and Runtime Support for Automatic Configuration and Deployment of Scientific Computing Software over Cloud Fabrics. <i>Journal of Grid Computing</i> , 2012 , 10, 23-46	4.2	12

36	Using stochastic epidemiological models to evaluate conservation strategies for endangered amphibians. <i>Journal of the Royal Society Interface</i> , 2017 , 14,	4.1	11
35	Elastic Properties of Novel Co- and CoNi-Based Superalloys Determined through Bayesian Inference and Resonant Ultrasound Spectroscopy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 2324-2339	2.3	10
34	Reaction rates for a generalized reaction-diffusion master equation. <i>Physical Review E</i> , 2016 , 93, 013307	2.4	10
33	Experimentally Validated Reconstruction and Analysis of a Genome-Scale Metabolic Model of an Anaerobic Neocallimastigomycota Fungus. <i>MSystems</i> , 2021 , 6,	7.6	10
32	The Role of Chromatin Density in Cell Population Heterogeneity during Stem Cell Differentiation. <i>Scientific Reports</i> , 2017 , 7, 13307	4.9	9
31	The Time Dependent Propensity Function for Acceleration of Spatial Stochastic Simulation of Reaction-Diffusion Systems. <i>Journal of Computational Physics</i> , 2014 , 274, 524-549	4.1	9
30	Mesoscopic-microscopic spatial stochastic simulation with automatic system partitioning. <i>Journal of Chemical Physics</i> , 2017 , 147, 234101	3.9	9
29	Conditions controlling kink crack nucleation out of, and delamination along, a mixed-mode interface crack. <i>Journal of the Mechanics and Physics of Solids</i> , 2018 , 121, 480-495	5	8
28	Reaction rates for reaction-diffusion kinetics on unstructured meshes. <i>Journal of Chemical Physics</i> , 2017 , 146, 064101	3.9	7
27	High-performance simulation of fracture in idealized Brick and mortar composites using adaptive Monte Carlo minimization on the GPU. <i>International Journal of High Performance Computing Applications</i> , 2016 , 30, 186-199	1.8	7
26	A hybrid smoothed dissipative particle dynamics (SDPD) spatial stochastic simulation algorithm (sSSA) for advection-diffusion-reaction problems. <i>Journal of Computational Physics</i> , 2019 , 378, 1-17	4.1	7
25	Control over single-cell distribution of G1 lengths by WNT governs pluripotency. <i>PLoS Biology</i> , 2019 , 17, e3000453	9.7	6
24	Analysis of the role of thrombomodulin in all-trans retinoic acid treatment of coagulation disorders in cancer patients. <i>Theoretical Biology and Medical Modelling</i> , 2019 , 16, 3	2.3	5
23	Regulation of CSF and Brain Tissue Sodium Levels by the Blood-CSF and Blood-Brain Barriers During Migraine. <i>Frontiers in Computational Neuroscience</i> , 2020 , 14, 4	3.5	5
22	Computational Model for Hyperfibrinolytic Onset of Acute Traumatic Coagulopathy. <i>Annals of Biomedical Engineering</i> , 2018 , 46, 1173-1182	4.7	4
21	On the Inference of Functional Circadian Networks Using Granger Causality. <i>PLoS ONE</i> , 2015 , 10, e0137549	3.9	4
20	Validation data for a hybrid smoothed dissipative particle dynamics (SDPD) spatial stochastic simulation algorithm (sSSA) method. <i>Data in Brief</i> , 2019 , 22, 11-15	1.2	4
19	Adaptive deployment of model reductions for tau-leaping simulation. <i>Journal of Chemical Physics</i> , 2015 , 142, 204108	3.9	3

18	Identification of disease states associated with coagulopathy in trauma. <i>BMC Medical Informatics and Decision Making</i> , 2016 , 16, 124	3.6	3
17	Coordinating cell polarization and morphogenesis through mechanical feedback. <i>PLoS Computational Biology</i> , 2021 , 17, e1007971	5	3
16	Computational model of tranexamic acid on urokinase mediated fibrinolysis. <i>PLoS ONE</i> , 2020 , 15, e0233640	3.4	2
15	Sources of intraspecific variation in the collective tempo and synchrony of ant societies. <i>Behavioral Ecology</i> , 2019 , 30, 1682-1690	2.3	1
14	Survival Topic Models for Predicting Outcomes for Trauma Patients 2017 ,		1
13	Direct higher order fuzzy rule-based classification system: Application in mortality prediction 2015 ,		1
12	Coordinating cell polarization and morphogenesis through mechanical feedback		1
11	Associations of longitudinal D-Dimer and Factor II on early trauma survival risk. <i>BMC Bioinformatics</i> , 2021 , 22, 122	3.6	1
10	Bayesian Inference over the Stiefel Manifold via the Givens Representation. <i>Bayesian Analysis</i> , 2021 , 16,	2.3	1
9	Extracellular detection of neuronal coupling. <i>Scientific Reports</i> , 2021 , 11, 14733	4.9	1
8	A Multimetric Evaluation of Stratified Random Sampling for Classification: A Case Study. <i>IEEE Life Sciences Letters</i> , 2016 , 2, 43-46		1
7	What Drives Consumer Choices? Mining Aspects and Opinions on Large Scale Review Data Using Distributed Representation of Words 2016 ,		1
6	Epidemiological modeling in StochSS Live!. <i>Bioinformatics</i> , 2021 ,	7.2	1
5	An arbitrary Lagrangian Eulerian smoothed particle hydrodynamics (ALE-SPH) method with a boundary volume fraction formulation for fluid-structure interaction. <i>Engineering Analysis With Boundary Elements</i> , 2021 , 128, 274-289	2.6	1
4	Identification of dynamic mass-action biochemical reaction networks using sparse Bayesian methods.. <i>PLoS Computational Biology</i> , 2022 , 18, e1009830	5	0
3	A positive feedback loop involving the Spa2 SHD domain contributes to focal polarization.. <i>PLoS ONE</i> , 2022 , 17, e0263347	3.7	
2	Accelerated regression-based summary statistics for discrete stochastic systems via approximate simulators. <i>BMC Bioinformatics</i> , 2021 , 22, 339	3.6	
1	Noise resistant synchronization and collective rhythm switching in a model of animal group locomotion.. <i>Royal Society Open Science</i> , 2022 , 9, 211908	3.3	

