Andreas Hellander

List of Publications by Year
in descending order

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53	1,415	430442	360668
papers	citations	18 h-index	35 g-index

60	60	60	1249
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Identification of dynamic mass-action biochemical reaction networks using sparse Bayesian methods. PLoS Computational Biology, 2022, 18, e1009830.	1.5	5
2	CBMOS: a GPU-enabled Python framework for the numerical study of center-based models. BMC Bioinformatics, 2022, 23, 55.	1.2	2
3	Living in darkness: Exploring adaptation of Proteus anguinus in 3 dimensions by X-ray imaging. GigaScience, 2022, 11, .	3.3	2
4	FedQAS: Privacy-Aware Machine Reading Comprehension with Federated Learning. Applied Sciences (Switzerland), 2022, 12, 3130.	1.3	5
5	Scalable machine learning-assisted model exploration and inference using Sciope. Bioinformatics, 2021, 37, 279-281.	1.8	3
6	Epidemiological modeling in StochSS Live!. Bioinformatics, 2021, 37, 2787-2788.	1.8	5
7	Rapid development of cloud-native intelligent data pipelines for scientific data streams using the HASTE Toolkit. GigaScience, 2021, 10, .	3.3	2
8	A multiscale compartment-based model of stochastic gene regulatory networks using hitting-time analysis. Journal of Chemical Physics, 2021, 154, 184105.	1.2	8
9	The machine learning life cycle and the cloud: implications for drug discovery. Expert Opinion on Drug Discovery, 2021, 16, 1071-1079.	2.5	16
10	Deep-learning models for lipid nanoparticle-based drug delivery. Nanomedicine, 2021, 16, 1097-1110.	1.7	18
11	A multiscale model to design therapeutic strategies that overcome drug resistance to tyrosine kinase inhibitors in multiple myeloma. Mathematical Biosciences, 2020, 319, 108293.	0.9	6
12	Impact of Force Function Formulations on the Numerical Simulation of Centre-Based Models. Bulletin of Mathematical Biology, 2020, 82, 132.	0.9	10
13	Apache Spark Streaming, Kafka andÂHarmonicIO: A Performance Benchmark and Architecture Comparison for Enterprise and Scientific Computing. Lecture Notes in Computer Science, 2020, , 335-347.	1.0	9
14	Hierarchical algorithm for the reaction-diffusion master equation. Journal of Chemical Physics, 2020, 152, 034104.	1.2	4
15	Adapting the Secretary Hiring Problem for Optimal Hot-Cold Tier Placement Under Top-K Workloads. , 2019, , .		6
16	Smart computational exploration of stochastic gene regulatory network models using human-in-the-loop semi-supervised learning. Bioinformatics, 2019, 35, 5199-5206.	1.8	17
17	A 3D Multiscale Model to Explore the Role of EGFR Overexpression in Tumourigenesis. Bulletin of Mathematical Biology, 2019, 81, 2323-2344.	0.9	2
18	Orchestral: A Lightweight Framework for Parallel Simulations of Cell-Cell Communication. , 2018, , .		6

#	Article	IF	Citations
19	HarmonicIO: Scalable Data Stream Processing for Scientific Datasets. , 2018, , .		7
20	BAMSI: a multi-cloud service for scalable distributed filtering of massive genome data. BMC Bioinformatics, 2018, 19, 240.	1.2	4
21	Multiscale Simulation of Stochastic Reaction-Diffusion Networks. , 2017, , 55-79.		1
22	Robustness Analysis of Spatiotemporal Models in the Presence of Extrinsic Fluctuations. SIAM Journal on Applied Mathematics, 2017, 77, 1157-1183.	0.8	3
23	Mesoscopic-microscopic spatial stochastic simulation with automatic system partitioning. Journal of Chemical Physics, 2017, 147, 234101.	1.2	13
24	Surrogate assisted model reduction for stochastic biochemical reaction networks. , 2017, , .		2
25	SNIC Science Cloud (SSC): A National-Scale Cloud Infrastructure for Swedish Academia. , 2017, , .		18
26	Oriented clonal cell dynamics enables accurate growth and shaping of vertebrate cartilage. ELife, 2017, 6, .	2.8	46
27	Mesoscopic Modeling of Stochastic Reaction-Diffusion Kinetics in the Subdiffusive Regime. Multiscale Modeling and Simulation, 2016, 14, 668-707.	0.6	7
28	GillesPy: A Python Package for Stochastic Model Building and Simulation. IEEE Life Sciences Letters, 2016, 2, 35-38.	1.2	38
29	MOLNs: A Cloud Platform for Interactive, Reproducible, and Scalable Spatial Stochastic Computational Experiments in Systems Biology Using PyURDME. SIAM Journal of Scientific Computing, 2016, 38, C179-C202.	1.3	28
30	Analysis of neural crestâ€“derived clones reveals novel aspects of facial development. Science Advances, 2016, 2, e1600060.	4.7	68
31	Analysis and Design of Jump Coefficients in Discrete Stochastic Diffusion Models. SIAM Journal of Scientific Computing, 2016, 38, A55-A83.	1.3	13
32	Stochastic Simulation Service: Bridging the Gap between the Computational Expert and the Biologist. PLoS Computational Biology, 2016, 12, e1005220.	1.5	54
33	Reaction rates for mesoscopic reaction-diffusion kinetics. Physical Review E, 2015, 91, 023312.	0.8	35
34	Accuracy of the Michaelisâ€“Menten approximation when analysing effects of molecular noise. Journal of the Royal Society Interface, 2015, 12, 20150054.	1.5	20
35	The Role of Dimerisation and Nuclear Transport in the Hes1 Gene Regulatory Network. Bulletin of Mathematical Biology, 2014, 76, 766-798.	0.9	26
36	Automatic and portable cloud deployment for scientific simulations. , 2014, , .		5

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37	Local error estimates for adaptive simulation of the reactionâ€“diffusion master equation via operator splitting. Journal of Computational Physics, 2014, 266, 89-100.	1.9	16
38	Perspective: Stochastic algorithms for chemical kinetics. Journal of Chemical Physics, 2013, 138, 170901.	1.2	259
39	Scientific Analysis by Queries in Extended SPARQL over a Scalable e-Science Data Store. , 2013, , .		3
40	Spatial stochastic modelling of the Hes1 gene regulatory network: intrinsic noise can explain heterogeneity in embryonic stem cell differentiation. Journal of the Royal Society Interface, 2013, 10, 20120988.	1.5	59
41	Reducing Complexity in Management of eScience Computations. , 2012, , .		7
42	Coupled Mesoscopic and Microscopic Simulation of Stochastic Reaction-Diffusion Processes in Mixed Dimensions. Multiscale Modeling and Simulation, 2012, 10, 585-611.	0.6	45
43	URDME: a modular framework for stochastic simulation of reaction-transport processes in complex geometries. BMC Systems Biology, 2012, 6, 76.	3.0	118
44	Reaction-diffusion master equation in the microscopic limit. Physical Review E, 2012, 85, 042901.	0.8	57
45	An adaptive algorithm for simulation of stochastic reactionâ€“diffusion processes. Journal of Computational Physics, 2010, 229, 343-360.	1.9	54
46	Incorporating Active Transport of Cellular Cargo in Stochastic Mesoscopic Models of Living Cells. Multiscale Modeling and Simulation, 2010, 8, 1691-1714.	0.6	8
47	CellMCâ€”a multiplatform model compiler for the Cell Broadband Engine and Ã—86. Bioinformatics, 2010, 26, 426-428.	1.8	21
48	Simulation of Stochastic Reaction-Diffusion Processes on Unstructured Meshes. SIAM Journal of Scientific Computing, 2009, 31, 1774-1797.	1.3	105
49	Sparse grids and hybrid methods for the chemical master equation. BIT Numerical Mathematics, 2008, 48, 265-283.	1.0	27
50	A Hierarchy of Approximations of the Master Equation Scaled by a Size Parameter. Journal of Scientific Computing, 2008, 34, 127-151.	1.1	44
51	Efficient computation of transient solutions of the chemical master equation based on uniformization and quasi-Monte Carlo. Journal of Chemical Physics, 2008, 128, 154109.	1.2	13
52	Hybrid method for the chemical master equation. Journal of Computational Physics, 2007, 227, 100-122.	1.9	63
53	Hybrid method for the chemical master equation. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1023701-1023702.	0.2	0