

# Matthias K Gobbert

## List of Publications by Year in descending order

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26  
papers

128  
citations

1478505

6  
h-index

1281871

11  
g-index

26  
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26  
docs citations

26  
times ranked

131  
citing authors

#	ARTICLE	IF	CITATIONS
1	Performance Benchmarking of Parallel Hyperparameter Tuning for Deep Learning Based Tornado Predictions. <i>Big Data Research</i> , 2021, 25, 100212.	4.2	3
2	A Modified Minibatch Sampling Method for Parameter Estimation in Hidden Markov Models using Stochastic Variational Bayes. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2021, 21, .	0.2	0
3	Using Deep Learning to Enhance Compton Camera Based Prompt Gamma Image Reconstruction Data for Proton Radiotherapy. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2021, 21, .	0.2	4
4	Classification of Compton Camera Based Prompt Gamma Imaging for Proton Radiotherapy by Random Forests. , 2021, , .		3
5	A dynamically load-balanced parallel p-adaptive implicit high-order flux reconstruction method for under-resolved turbulence simulation. <i>Journal of Computational Physics</i> , 2020, 417, 109581.	3.8	13
6	Linkages of calcium-induced calcium release in a cardiomyocyte simulated by a system of seven coupled partial differential equations. <i>Involve</i> , 2020, 13, 399-424.	0.2	1
7	Challenges and opportunities for the simulation of calcium waves on modern multi-core and many-core parallel computing platforms. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2019, 37, e3244.	2.1	1
8	Merging Orthovoltage X-Ray Minibeams spare the proximal tissues while producing a solid beam at the target. <i>Scientific Reports</i> , 2019, 9, 1198.	3.3	11
9	Performance Benchmarking of Data Augmentation and Deep Learning for Tornado Prediction. , 2019, , .		5
10	Simulation of Calcium Waves in a Heart Cell on Modern Multi-Core Parallel Computing Platforms. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2019, 19, e201900295.	0.2	0
11	Nuclear introns help unravel the diversification history of the Australo-Pacific Petroica robins. <i>Molecular Phylogenetics and Evolution</i> , 2019, 131, 48-54.	2.7	4
12	Long-time simulations with complex code using multiple nodes of Intel Xeon Phi Knights Landing. <i>Journal of Computational and Applied Mathematics</i> , 2018, 337, 18-36.	2.0	1
13	Parallelizing computation of expected values in recombinant binomial trees. <i>Journal of Statistical Computation and Simulation</i> , 2018, 88, 657-674.	1.2	0
14	Parameter Identification for Calcium Release in a Heart Cell with Modified Patankar-Runge-Kutta Schemes. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2018, 18, e201800197.	0.2	1
15	Examining the Electrical Excitation, Calcium Signaling, and Mechanical Contraction Cycle in a Heart Cell. <i>Spora: A Journal of Biomathematics</i> , 2017, 3, .	0.1	2
16	Examining the Effect of Introducing a Link From Electrical Excitation to Calcium Dynamics in a Cardiomyocyte. <i>Spora: A Journal of Biomathematics</i> , 2016, 2, .	0.1	4
17	Insight into spontaneous recurrent calcium waves in a 3-D cardiac cell based on analysis of a 1-D deterministic model. <i>International Journal of Computer Mathematics</i> , 2015, 92, 591-607.	1.8	2
18	Time-stepping techniques to enable the simulation of bursting behavior in a physiologically realistic computational islet. <i>Mathematical Biosciences</i> , 2015, 263, 1-17.	1.9	3

#	ARTICLE	IF	CITATIONS
19	A memory-efficient finite volume method for advection-diffusion-reaction systems with nonsmooth sources. Numerical Methods for Partial Differential Equations, 2015, 31, 143-167.	3.6	6
20	On Unconditionally Positivity Preserving and Conservative Methods for Systems of Advection-Diffusion-Reaction Equations. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 965-966.	0.2	2
21	Maximum-likelihood estimation of the random-clumped multinomial model as a prototype problem for large-scale statistical computing. Journal of Statistical Computation and Simulation, 2013, 83, 2178-2194.	1.2	1
22	Parallel Computing for Long-Time Simulations of Calcium Waves in a Heart Cell. Proceedings in Applied Mathematics and Mechanics, 2012, 12, 637-638.	0.2	0
23	Finite element approximation for time-dependent diffusion with measure-valued source. Numerische Mathematik, 2012, 122, 709-723.	1.9	11
24	Long-Time Simulations on High Resolution Meshes to Model Calcium Waves in a Heart Cell. SIAM Journal of Scientific Computing, 2008, 30, 2922-2947.	2.8	10
25	A Galerkin Method for the Simulation of the Transient 2-D/2-D and 3-D/3-D Linear Boltzmann Equation. Journal of Scientific Computing, 2007, 30, 237-273.	2.3	22
26	A memory-efficient finite element method for systems of reaction-diffusion equations with non-smooth forcing. Journal of Computational and Applied Mathematics, 2004, 169, 431-458.	2.0	18