

Michael Bergdorf

List of Publications by Year in descending order

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Version: 2024-02-01

22
papers

901
citations

687363

13
h-index

940533

16
g-index

23
all docs

23
docs citations

23
times ranked

751
citing authors

#	ARTICLE	IF	CITATIONS
1	PPM – A highly efficient parallel particle–mesh library for the simulation of continuum systems. <i>Journal of Computational Physics</i> , 2006, 215, 566-588.	3.8	153
2	A Hybrid Model for Three-Dimensional Simulations of Sprouting Angiogenesis. <i>Biophysical Journal</i> , 2008, 95, 3146-3160.	0.5	131
3	Billion vortex particle direct numerical simulations of aircraft wakes. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008, 197, 1296-1304.	6.6	111
4	GPU accelerated simulations of bluff body flows using vortex particle methods. <i>Journal of Computational Physics</i> , 2010, 229, 3316-3333.	3.8	73
5	Influence of cut-off truncation and artificial periodicity of electrostatic interactions in molecular simulations of solvated ions: A continuum electrostatics study. <i>Journal of Chemical Physics</i> , 2003, 119, 9129-9144.	3.0	67
6	A Lagrangian Particle–Wavelet Method. <i>Multiscale Modeling and Simulation</i> , 2006, 5, 980-995.	1.6	65
7	Multilevel Adaptive Particle Methods for Convection-Diffusion Equations. <i>Multiscale Modeling and Simulation</i> , 2005, 4, 328-357.	1.6	61
8	High order finite volume methods on wavelet-adapted grids with local time-stepping on multicore architectures for the simulation of shock-bubble interactions. <i>Journal of Computational Physics</i> , 2010, 229, 8364-8383.	3.8	48
9	MRAG-I2D: Multi-resolution adapted grids for remeshed vortex methods on multicore architectures. <i>Journal of Computational Physics</i> , 2015, 288, 1-18.	3.8	44
10	Direct numerical simulations of vortex rings at $Re = 7500$. <i>Journal of Fluid Mechanics</i> , 2007, 581, 495-505.	3.4	43
11	Quantum chemical benchmark databases of gold-standard dimer interaction energies. <i>Scientific Data</i> , 2021, 8, 55.	5.3	34
12	A Lagrangian particle method for reaction–diffusion systems on deforming surfaces. <i>Journal of Mathematical Biology</i> , 2010, 61, 649-663.	1.9	33
13	Water–carbon interactions III: The influence of surface and fluid impurities. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 1988-1995.	2.8	28
14	Wavelet–adaptive solvers on multi–core architectures for the simulation of complex systems. <i>Concurrency Computation Practice and Experience</i> , 2011, 23, 172-186.	2.2	6
15	A Hybrid Model of Sprouting Angiogenesis. <i>Lecture Notes in Computer Science</i> , 2008, , 167-176.	1.3	2
16	Particle Simulations of Growth: Application to Tumorigenesis. , 2012, , 261-303.		1
17	Midtown splines: An optimal charge assignment for electrostatics calculations. <i>Journal of Chemical Physics</i> , 2020, 153, 224117.	3.0	1
18	Vortex Methods for Massively Parallel Computer Architectures. <i>Lecture Notes in Computer Science</i> , 2008, , 479-489.	1.3	0

#	ARTICLE	IF	CITATIONS
19	Wavelet-Based Adaptive Solvers on Multi-core Architectures for the Simulation of Complex Systems. Lecture Notes in Computer Science, 2009, , 721-734.	1.3	0
20	Particle Simulations of Growth: Application to Angiogenesis. , 2012, , 305-334.		0
21	Multiresolution Particle Methods. , 2007, , 49-61.		0
22	Large Scale, Multiresolution Flow Simulations Using Remeshed Particle Methods. Lecture Notes in Computational Science and Engineering, 2008, , 35-46.	0.3	0