

Derek Groen

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1179301/publications.pdf>

Version: 2024-02-01

73
papers

1,491
citations

331670

21
h-index

345221

36
g-index

77
all docs

77
docs citations

77
times ranked

1898
citing authors

#	ARTICLE	IF	CITATIONS
1	FACS: A geospatial agent-based simulator for analysing COVID-19 spread and public health measures on local regions. <i>Journal of Simulation</i> , 2022, 16, 355-373.	1.5	30
2	STAMINA: Bioinformatics Platform for Monitoring and Mitigating Pandemic Outbreaks. <i>Technologies</i> , 2022, 10, 63.	5.1	1
3	The impact of uncertainty on predictions of the CovidSim epidemiological code. <i>Nature Computational Science</i> , 2021, 1, 128-135.	8.0	45
4	VECMAtk: a scalable verification, validation and uncertainty quantification toolkit for scientific simulations. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021, 379, 20200221.	3.4	15
5	Uncertainty quantification of dynamic earthquake rupture simulations. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021, 379, 20200076.	3.4	1
6	Reliability and reproducibility in computational science: implementing validation, verification and uncertainty quantification <i>in silico</i> . <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021, 379, 20200409.	3.4	9
7	Sensitivity-driven simulation development: a case study in forced migration. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021, 379, 20200077.	3.4	7
8	A route pruning algorithm for an automated geographic location graph construction. <i>Scientific Reports</i> , 2021, 11, 11547.	3.3	4
9	P-Flee: An Efficient Parallel Algorithm for Simulating Human Migration. , 2021, , .		0
10	Tutorial applications for Verification, Validation and Uncertainty Quantification using VECMA toolkit. <i>Journal of Computational Science</i> , 2021, 53, 101402.	2.9	4
11	Building Confidence in Simulation: Applications of EasyVVUQ. <i>Advanced Theory and Simulations</i> , 2020, 3, 1900246.	2.8	21
12	How Policy Decisions Affect Refugee Journeys in South Sudan: A Study Using Automated Ensemble Simulations. <i>Jasss</i> , 2020, 23, .	1.8	14
13	Towards Accurate Simulation of Global Challenges on Data Centers Infrastructures via Coupling of Models and Data Sources. <i>Lecture Notes in Computer Science</i> , 2020, , 410-424.	1.3	0
14	Introducing VECMAtk - Verification, Validation and Uncertainty Quantification for Multiscale and HPC Simulations. <i>Lecture Notes in Computer Science</i> , 2019, , 479-492.	1.3	14
15	Mastering the scales: a survey on the benefits of multiscale computing software. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20180147.	3.4	30
16	Building Global Research Capacity in Public Health: The Case of a Science Gateway for Physical Activity Lifelong Modelling and Simulation. , 2019, , .		3
17	Towards Modelling the Effect of Evolving Violence on Forced Migration. , 2019, , .		2
18	Hybrid Simulation Development “ Is It Just Analytics?. , 2019, , .		2

#	ARTICLE	IF	CITATIONS
19	Patterns for High Performance Multiscale Computing. Future Generation Computer Systems, 2019, 91, 335-346.	7.5	20
20	Community effort endorsing multiscale modelling, multiscale data science and multiscale computing for systems medicine. Briefings in Bioinformatics, 2019, 20, 1057-1062.	6.5	15
21	Impact of immigrants on a multi-agent economical system. PLoS ONE, 2018, 13, e0197509.	2.5	0
22	Validation of Patient-Specific Cerebral Blood Flow Simulation Using Transcranial Doppler Measurements. Frontiers in Physiology, 2018, 9, 721.	2.8	22
23	Development of a Multiscale Simulation Approach for Forced Migration. Lecture Notes in Computer Science, 2018, , 869-875.	1.3	2
24	A generalized simulation development approach for predicting refugee destinations. Scientific Reports, 2017, 7, 13377.	3.3	55
25	Multiscale Modelling and Simulation, 14th International Workshop. Procedia Computer Science, 2017, 108, 1811-1812.	2.0	0
26	Multiscale computing in the exascale era. Journal of Computational Science, 2017, 22, 15-25.	2.9	54
27	A Serious Video Game To Support Decision Making On Refugee Aid Deployment Policy. Procedia Computer Science, 2017, 108, 205-214.	2.0	11
28	Towards an automated framework for agent-based simulation of refugee movements. , 2017, , .		9
29	Multiscale Modelling and Simulation, 13th International Workshop. Procedia Computer Science, 2016, 80, 1242-1243.	2.0	1
30	FabSim: Facilitating computational research through automation on large-scale and distributed e-infrastructures. Computer Physics Communications, 2016, 207, 375-385.	7.5	32
31	Simulating Refugee Movements: Where would You Go?. Procedia Computer Science, 2016, 80, 2251-2255.	2.0	26
32	Anatomy and Physiology of Multiscale Modeling and Simulation in Systems Medicine. Methods in Molecular Biology, 2016, 1386, 375-404.	0.9	5
33	Multiscale Modelling and Simulation Workshop:12 Years of Inspiration. Procedia Computer Science, 2015, 51, 1082-1087.	2.0	7
34	From Thread to Transcontinental Computer: Disturbing Lessons in Distributed Supercomputing. , 2015, , .		2
35	Mechanism of Exfoliation and Prediction of Materials Properties of Clay-Polymer Nanocomposites from Multiscale Modeling. Nano Letters, 2015, 15, 8108-8113.	9.1	45
36	Ten Simple Rules for a Successful Cross-Disciplinary Collaboration. PLoS Computational Biology, 2015, 11, e1004214.	3.2	46

#	ARTICLE	IF	CITATIONS
37	An automated multiscale ensemble simulation approach for vascular blood flow. <i>Journal of Computational Science</i> , 2015, 9, 150-155.	2.9	14
38	Chemically Specific Multiscale Modeling of Clay-Polymer Nanocomposites Reveals Intercalation Dynamics, Tactoid Self-Assembly and Emergent Materials Properties. <i>Advanced Materials</i> , 2015, 27, 966-984.	21.0	98
39	Science hackathons for developing interdisciplinary research and collaborations. <i>ELife</i> , 2015, 4, e09944.	6.0	23
40	Weighted Decomposition in High-Performance Lattice-Boltzmann Simulations: Are Some Lattice Sites More Equal than Others?. <i>Lecture Notes in Computer Science</i> , 2015, , 28-38.	1.3	3
41	Ten Simple Rules for Effective Computational Research. <i>PLoS Computational Biology</i> , 2014, 10, e1003506.	3.2	47
42	Towards a computational system to support clinical treatment decisions for diagnosed cerebral aneurysms. , 2014, , .		0
43	Survey of Multiscale and Multiphysics Applications and Communities. <i>Computing in Science and Engineering</i> , 2014, 16, 34-43.	1.2	56
44	Choice of boundary condition for lattice-Boltzmann simulation of moderate-Reynolds-number flow in complex domains. <i>Physical Review E</i> , 2014, 89, 023303.	2.1	48
45	Performance of distributed multiscale simulations. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014, 372, 20130407.	3.4	31
46	Computer simulations reveal complex distribution of haemodynamic forces in a mouse retina model of angiogenesis. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20140543.	3.4	87
47	Distributed multiscale computing with MUSCLE 2, the Multiscale Coupling Library and Environment. <i>Journal of Computational Science</i> , 2014, 5, 719-731.	2.9	57
48	Impact of blood rheology on wall shear stress in a model of the middle cerebral artery. <i>Interface Focus</i> , 2013, 3, 20120094.	3.0	41
49	Multiscale Computing with the Multiscale Modeling Library and Runtime Environment. <i>Procedia Computer Science</i> , 2013, 18, 1097-1105.	2.0	18
50	Analysing and modelling the performance of the HemeLB lattice-Boltzmann simulation environment. <i>Journal of Computational Science</i> , 2013, 4, 412-422.	2.9	46
51	Support for Multiscale Simulations with Molecular Dynamics. <i>Procedia Computer Science</i> , 2013, 18, 1116-1125.	2.0	7
52	Flexible composition and execution of high performance, high fidelity multiscale biomedical simulations. <i>Interface Focus</i> , 2013, 3, 20120087.	3.0	35
53	THE COSMOGRID SIMULATION: STATISTICAL PROPERTIES OF SMALL DARK MATTER HALOS. <i>Astrophysical Journal</i> , 2013, 767, 146.	4.5	76
54	Distributed Multiscale Simulations of Clay-Polymer Nanocomposites. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1470, 6.	0.1	6

#	ARTICLE	IF	CITATIONS
55	Distributed Infrastructure for Multiscale Computing. , 2012, , .		9
56	High-performance gravitational N -body simulations on a planet-wide-distributed supercomputer. Computational Science & Discovery, 2011, 4, 015001.	1.5	9
57	Developing an infrastructure to support multiscale modelling and simulation. , 2011, , .		1
58	Taxonomy of Multiscale Computing Communities. , 2011, , .		5
59	Modelling Distributed Multiscale Simulation Performance: An Application to Nanocomposites. , 2011, , .		2
60	Simulating the Universe on an Intercontinental Grid. Computer, 2010, 43, 63-70.	1.1	16
61	A platform independent communication library for distributed computing. Procedia Computer Science, 2010, 1, 2699-2706.	2.0	0
62	The Living Application: a Self-Organizing System for Complex Grid Tasks. International Journal of High Performance Computing Applications, 2010, 24, 185-193.	3.7	3
63	A lightweight communication library for distributed computing. Computational Science & Discovery, 2010, 3, 015002.	1.5	11
64	Running Parallel Applications with Topology-Aware Grid Middleware. , 2009, , .		8
65	A multiphysics and multiscale software environment for modeling astrophysical systems. New Astronomy, 2009, 14, 369-378.	1.8	146
66	On the Origin of Grid Species: The Living Application. Lecture Notes in Computer Science, 2009, , 205-212.	1.3	5
67	A parallel gravitational N-body kernel. New Astronomy, 2008, 13, 285-295.	1.8	10
68	Distributed N-body simulation on the grid using dedicated hardware. New Astronomy, 2008, 13, 348-358.	1.8	4
69	Simulating N-Body Systems on the Grid Using Dedicated Hardware. Lecture Notes in Computer Science, 2008, , 86-95.	1.3	2
70	A Multiphysics and Multiscale Software Environment for Modeling Astrophysical Systems. Lecture Notes in Computer Science, 2008, , 207-216.	1.3	6
71	Computational Engineering on the Grid: Crafting a Distributed Virtual Reactor. , 2006, , .		3
72	Experience with the International Testbed in the CrossGrid Project. Lecture Notes in Computer Science, 2005, , 98-110.	1.3	1

#	ARTICLE	IF	CITATIONS
73	On-Line Application Performance Monitoring of Blood Flow Simulation in Computational Grid Architectures. , 0, , .		0