

# Lucas C Wilcox

## List of Publications by Year in descending order

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Version: 2024-02-01

21  
papers

1,810  
citations

566801

15  
h-index

794141

19  
g-index

21  
all docs

21  
docs citations

21  
times ranked

1530  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hybridized Summation-by-Parts Finite Difference Methods. <i>Journal of Scientific Computing</i> , 2021, 87, 1.	1.1	1
2	Strong scaling for numerical weather prediction at petascale with the atmospheric model NUMA. <i>International Journal of High Performance Computing Applications</i> , 2019, 33, 411-426.	2.4	23
3	Acceleration of the IMplicit-EXplicit nonhydrostatic unified model of the atmosphere on manycore processors. <i>International Journal of High Performance Computing Applications</i> , 2019, 33, 242-267.	2.4	16
4	A GPU-accelerated continuous and discontinuous Galerkin non-hydrostatic atmospheric model. <i>International Journal of High Performance Computing Applications</i> , 2019, 33, 81-109.	2.4	22
5	An Energy Stable Approach for Discretizing Hyperbolic Equations with Nonconforming Discontinuous Galerkin Methods. <i>Journal of Scientific Computing</i> , 2018, 76, 1742-1784.	1.1	8
6	Mitigating the curse of dimensionality: sparse grid characteristics method for optimal feedback control and HJB equations. <i>Computational Optimization and Applications</i> , 2017, 68, 289-315.	0.9	53
7	Solving 1D Conservation Laws Using Pontryagin's Minimum Principle. <i>Journal of Scientific Computing</i> , 2017, 71, 144-165.	1.1	2
8	Stable Coupling of Nonconforming, High-Order Finite Difference Methods. <i>SIAM Journal of Scientific Computing</i> , 2016, 38, A923-A952.	1.3	40
9	A discontinuous Galerkin method with a modified penalty flux for the propagation and scattering of acousto-elastic waves. <i>Geophysical Journal International</i> , 2016, 205, 1267-1289.	1.0	40
10	Recursive Algorithms for Distributed Forests of Octrees. <i>SIAM Journal of Scientific Computing</i> , 2015, 37, C497-C531.	1.3	61
11	Discretely Exact Derivatives for Hyperbolic PDE-Constrained Optimization Problems Discretized by the Discontinuous Galerkin Method. <i>Journal of Scientific Computing</i> , 2015, 63, 138-162.	1.1	22
12	Large-scale adaptive mantle convection simulation. <i>Geophysical Journal International</i> , 2013, 192, 889-906.	1.0	54
13	A Stochastic Newton MCMC Method for Large-Scale Statistical Inverse Problems with Application to Seismic Inversion. <i>SIAM Journal of Scientific Computing</i> , 2012, 34, A1460-A1487.	1.3	281
14	Extreme-scale UQ for Bayesian inverse problems governed by PDEs. , 2012, , .		39
15	Scalable Algorithms for Parallel Adaptive Mesh Refinement on Forests of Octrees. <i>SIAM Journal of Scientific Computing</i> , 2011, 33, 1103-1133.	1.3	491
16	A high-order discontinuous Galerkin method for wave propagation through coupled elastic-acoustic media. <i>Journal of Computational Physics</i> , 2010, 229, 9373-9396.	1.9	195
17	Slab stress and strain rate as constraints on global mantle flow. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	31
18	The Dynamics of Plate Tectonics and Mantle Flow: From Local to Global Scales. <i>Science</i> , 2010, 329, 1033-1038.	6.0	284

#	ARTICLE	IF	CITATIONS
19	Parallel scalable adjoint-based adaptive solution of variable-viscosity Stokes flow problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2009, 198, 1691-1700.	3.4	94
20	<i>ALPS</i> : A framework for parallel adaptive PDE solution. <i>Journal of Physics: Conference Series</i> , 2009, 180, 012009.	0.3	10
21	Scalable adaptive mantle convection simulation on petascale supercomputers. , 2008, , .		43