

# 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	Scalable Algorithms for Parallel Adaptive Mesh Refinement on Forests of Octrees. SIAM Journal of Scientific Computing, 2011, 33, 1103-1133.	1.3	491
2	The Dynamics of Plate Tectonics and Mantle Flow: From Local to Global Scales. Science, 2010, 329, 1033-1038.	6.0	284
3	A Stochastic Newton MCMC Method for Large-Scale Statistical Inverse Problems with Application to Seismic Inversion. SIAM Journal of Scientific Computing, 2012, 34, A1460-A1487.	1.3	281
4	A high-order discontinuous Galerkin method for wave propagation through coupled elastic-acoustic media. Journal of Computational Physics, 2010, 229, 9373-9396.	1.9	195
5	Parallel scalable adjoint-based adaptive solution of variable-viscosity Stokes flow problems. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 1691-1700.	3.4	94
6	Recursive Algorithms for Distributed Forests of Octrees. SIAM Journal of Scientific Computing, 2015, 37, C497-C531.	1.3	61
7	Large-scale adaptive mantle convection simulation. Geophysical Journal International, 2013, 192, 889-906.	1.0	54
8	Mitigating the curse of dimensionality: sparse grid characteristics method for optimal feedback control and HJB equations. Computational Optimization and Applications, 2017, 68, 289-315.	0.9	53
9	Scalable adaptive mantle convection simulation on petascale supercomputers. , 2008, , .		43
10	Stable Coupling of Nonconforming, High-Order Finite Difference Methods. SIAM Journal of Scientific Computing, 2016, 38, A923-A952.	1.3	40
11	A discontinuous Galerkin method with a modified penalty flux for the propagation and scattering of acousto-elastic waves. Geophysical Journal International, 2016, 205, 1267-1289.	1.0	40
12	Extreme-scale UQ for Bayesian inverse problems governed by PDEs. , 2012, , .		39
13	Slab stress and strain rate as constraints on global mantle flow. Geophysical Research Letters, 2010, 37, .	1.5	31
14	Strong scaling for numerical weather prediction at petascale with the atmospheric model NUMA. International Journal of High Performance Computing Applications, 2019, 33, 411-426.	2.4	23
15	Discretely Exact Derivatives for Hyperbolic PDE-Constrained Optimization Problems Discretized by the Discontinuous Galerkin Method. Journal of Scientific Computing, 2015, 63, 138-162.	1.1	22
16	A GPU-accelerated continuous and discontinuous Galerkin non-hydrostatic atmospheric model. International Journal of High Performance Computing Applications, 2019, 33, 81-109.	2.4	22
17	Acceleration of the Implicit-Explicit nonhydrostatic unified model of the atmosphere on manycore processors. International Journal of High Performance Computing Applications, 2019, 33, 242-267.	2.4	16
18	ALPS: A framework for parallel adaptive PDE solution. Journal of Physics: Conference Series, 2009, 180, 012009.	0.3	10

#	ARTICLE	IF	CITATIONS
19	An Energy Stable Approach for Discretizing Hyperbolic Equations with Nonconforming Discontinuous Galerkin Methods. Journal of Scientific Computing, 2018, 76, 1742-1784.	1.1	8
20	Solving 1D Conservation Laws Using Pontryagin's Minimum Principle. Journal of Scientific Computing, 2017, 71, 144-165.	1.1	2
21	Hybridized Summation-by-Parts Finite Difference Methods. Journal of Scientific Computing, 2021, 87, 1.	1.1	1