Andreas KlÃ¶ckner

List of Publications by Year
in descending order

23	1,106	933447 10	839539 18
papers	citations	h-index	g-index

23	23	23	1331
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	PyCUDA and PyOpenCL: A scripting-based approach to GPU run-time code generation. Parallel Computing, 2012, 38, 157-174.	2.1	396
2	Nodal discontinuous Galerkin methods on graphics processors. Journal of Computational Physics, 2009, 228, 7863-7882.	3.8	250
3	Quadrature by expansion: A new method for the evaluation of layer potentials. Journal of Computational Physics, 2013, 252, 332-349.	3.8	131
4	Viscous Shock Capturing in a Time-Explicit Discontinuous Galerkin Method. Mathematical Modelling of Natural Phenomena, 2011, 6, 57-83.	2.4	76
5	Visualizing skin effects in conductors with MRI: <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si5.gif" overflow="scroll"><mml:mrow><mml:msup><mml:mrow /><mml:mrow><mml:mn>7</mml:mn></mml:mrow></mml:msup></mml:mrow></mml:math>Li MRI experiments and calculations. Journal of Magnetic Resonance, 2014, 245, 143-149.	2.1	63
6	On the Convergence of Local Expansions of Layer Potentials. SIAM Journal on Numerical Analysis, 2013, 51, 2660-2679.	2.3	33
7	Loo.py. , 2014, , .		32
8	Fast algorithms for Quadrature by Expansion I: Globally valid expansions. Journal of Computational Physics, 2017, 345, 706-731.	3.8	24
9	A fast algorithm for Quadrature by Expansion in three dimensions. Journal of Computational Physics, 2019, 388, 655-689.	3.8	23
10	A fast algorithm with error bounds for Quadrature by Expansion. Journal of Computational Physics, 2018, 374, 135-162.	3.8	15
11	Optimization of fast algorithms for global Quadrature by Expansion using target-specific expansions. Journal of Computational Physics, 2020, 403, 108976.	3.8	11
12	A Consistency Condition for the Vector Potential in Multiply-Connected Domains. IEEE Transactions on Magnetics, 2013, 49, 1072-1076.	2.1	10
13	Multi-rate time integration on overset meshes. Journal of Computational Physics, 2019, 396, 325-346.	3.8	7
14	High-Order Discontinuous Galerkin Methods by GPU Metaprogramming. Lecture Notes in Earth System Sciences, 2013, , 353-374.	0.6	6
15	Solving Wave Equations on Unstructured Geometries. , 2012, , 225-242.		4
16	GPU Scripting and Code Generation with PyCUDA. , 2012, , 373-385.		4
17	Loo.py: from fortran to performance via transformation and substitution rules. , 2015, , .		4
18	Conformal Mapping via a Density Correspondence for the Double-Layer Potential. SIAM Journal of Scientific Computing, 2018, 40, A3715-A3732.	2.8	4

#	Article	IF	Citations
19	Simulation of Multiscale Hydrophobic Lipid Dynamics via Efficient Integral Equation Methods. Multiscale Modeling and Simulation, 2020, 18, 79-103.	1.6	4
20	An integral equation method for the Cahn-Hilliard equation in the wetting problem. Journal of Computational Physics, 2020, 419, 109521.	3.8	3
21	Finite Elements for Helmholtz Equations with a Nonlocal Boundary Condition. SIAM Journal of Scientific Computing, 2021, 43, A1671-A1691.	2.8	3
22	Array program transformation with Loo.py by example: high-order finite elements. , 2016, , .		2
23	High-order finite elementâ€“integral equation coupling on embedded meshes. Journal of Computational Physics, 2018, 375, 1295-1313.	3.8	1