

Ken Mattsson

List of Publications by Year in descending order

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39
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1,469
citations

361045

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344852

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41
all docs

41
docs citations

41
times ranked

399
citing authors

#	ARTICLE	IF	CITATIONS
1	Energy stable and accurate coupling of finite element methods and finite difference methods. Journal of Computational Physics, 2022, 449, 110791.	1.9	4
2	A residual-based artificial viscosity finite difference method for scalar conservation laws. Journal of Computational Physics, 2021, 430, 110100.	1.9	10
3	A High Order Accurate Finite Difference Method for the Drinfeld-Sokolov-Wilson Equation. Journal of Scientific Computing, 2021, 88, 1.	1.1	0
4	High-order finite difference method for the Schrödinger equation on deforming domains. Journal of Computational Physics, 2021, 443, 110530.	1.9	1
5	An efficient finite difference method for the shallow water equations. Journal of Computational Physics, 2020, 422, 109784.	1.9	13
6	Compatible diagonal-norm staggered and upwind SBP operators. Journal of Computational Physics, 2018, 352, 52-75.	1.9	16
7	High-fidelity Sound Propagation in a Varying 3D Atmosphere. Journal of Scientific Computing, 2018, 77, 1278-1302.	1.1	4
8	An improved projection method. Journal of Computational Physics, 2018, 372, 349-372.	1.9	12
9	A finite difference method for earthquake sequences in poroelastic solids. Computational Geosciences, 2018, 22, 1351-1370.	1.2	17
10	Simulation of acoustic and flexural-gravity waves in ice-covered oceans. Journal of Computational Physics, 2018, 373, 230-252.	1.9	7
11	Boundary optimized diagonal-norm SBP operators. Journal of Computational Physics, 2018, 374, 1261-1266.	1.9	10
12	A high-order accurate embedded boundary method for first order hyperbolic equations. Journal of Computational Physics, 2017, 334, 255-279.	1.9	16
13	Diagonal-norm upwind SBP operators. Journal of Computational Physics, 2017, 335, 283-310.	1.9	26
14	High-fidelity numerical simulation of solitons in the nerve axon. Journal of Computational Physics, 2016, 305, 793-816.	1.9	10
15	Realization of adiabatic Aharonov-Bohm scattering with neutrons. Physical Review A, 2015, 92, .	1.0	1
16	High-fidelity numerical simulation of the dynamic beam equation. Journal of Computational Physics, 2015, 286, 194-213.	1.9	7
17	Stable and High-Order Accurate Boundary Treatments for the Elastic Wave Equation on Second-Order Form. SIAM Journal of Scientific Computing, 2014, 36, A2787-A2818.	1.3	22
18	Atmospheric Sound Propagation Over Large-Scale Irregular Terrain. Journal of Scientific Computing, 2014, 61, 369-397.	1.1	9

#	ARTICLE	IF	CITATIONS
19	Diagonal-norm summation by parts operators for finite difference approximations of third and fourth derivatives. <i>Journal of Computational Physics</i> , 2014, 274, 432-454.	1.9	22
20	Acoustic Wave Propagation in Complicated Geometries and Heterogeneous Media. <i>Journal of Scientific Computing</i> , 2014, 61, 90-118.	1.1	35
21	Optimal diagonal-norm SBP operators. <i>Journal of Computational Physics</i> , 2014, 264, 91-111.	1.9	40
22	High-fidelity numerical solution of the time-dependent Dirac equation. <i>Journal of Computational Physics</i> , 2014, 262, 86-103.	1.9	16
23	A solution to the stability issues with block norm summation by parts operators. <i>Journal of Computational Physics</i> , 2013, 253, 418-442.	1.9	31
24	Summation by Parts Operators for Finite Difference Approximations of Second-Derivatives with Variable Coefficients. <i>Journal of Scientific Computing</i> , 2012, 51, 650-682.	1.1	120
25	Stable and Accurate Second-order Formulation of the Shifted Wave Equation. <i>Communications in Computational Physics</i> , 2010, 7, 103-137.	0.7	24
26	Stable and Accurate Interpolation Operators for High-Order Multiblock Finite Difference Methods. <i>SIAM Journal of Scientific Computing</i> , 2010, 32, 2298-2320.	1.3	87
27	Stable Boundary Treatment for the Wave Equation on a Second-Order Form. <i>Journal of Scientific Computing</i> , 2009, 41, 366-383.	1.1	51
28	A hybrid method for unsteady inviscid fluid flow. <i>Computers and Fluids</i> , 2009, 38, 875-882.	1.3	22
29	Stable and accurate schemes for the compressible Navier–Stokes equations. <i>Journal of Computational Physics</i> , 2008, 227, 2293-2316.	1.9	73
30	Stable and accurate wave-propagation in discontinuous media. <i>Journal of Computational Physics</i> , 2008, 227, 8753-8767.	1.9	58
31	High-order accurate computations for unsteady aerodynamics. <i>Computers and Fluids</i> , 2007, 36, 636-649.	1.3	47
32	Boundary conditions for a divergence free velocity–pressure formulation of the Navier–Stokes equations. <i>Journal of Computational Physics</i> , 2007, 225, 874-890.	1.9	45
33	CHIMPS: A High-Performance Scalable Module for Multi-Physics Simulations. , 2006, , .		24
34	High order finite difference methods for wave propagation in discontinuous media. <i>Journal of Computational Physics</i> , 2006, 220, 249-269.	1.9	51
35	Steady-State Computations Using Summation-by-Parts Operators. <i>Journal of Scientific Computing</i> , 2005, 24, 79-95.	1.1	44
36	Stable and Accurate Artificial Dissipation. <i>Journal of Scientific Computing</i> , 2004, 21, 57-79.	1.1	144

#	ARTICLE	IF	CITATIONS
37	Summation by parts operators for finite difference approximations of second derivatives. Journal of Computational Physics, 2004, 199, 503-540.	1.9	288
38	Boundary Procedures for Summation-by-Parts Operators. Journal of Scientific Computing, 2003, 18, 133-153.	1.1	55
39	Accuracy Requirements for Transient Aerodynamics. , 2003, , .		5