

# Jan Hesthaven

## List of Publications by Year in descending order

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219  
papers

11,052  
citations

30047

54  
h-index

34964

98  
g-index

229  
all docs

229  
docs citations

229  
times ranked

5661  
citing authors

#	ARTICLE	IF	CITATIONS
1	Preface to the Focused Issue on WENO Schemes. Communications on Applied Mathematics and Computation, 2023, 5, 1-2.	0.7	0
2	Predictive Monitoring of Large-Scale Engineering Assets Using Machine Learning Techniques and Reduced-Order Modeling. Structural Integrity, 2022, , 185-205.	0.8	2
3	Population pharmacokinetic model selection assisted by machine learning. Journal of Pharmacokinetics and Pharmacodynamics, 2022, 49, 257-270.	0.8	17
4	Multi-fidelity regression using artificial neural networks: Efficient approximation of parameter-dependent output quantities. Computer Methods in Applied Mechanics and Engineering, 2022, 389, 114378.	3.4	41
5	A Hierarchical Preconditioner for Wave Problems in Quasilinear Complexity. SIAM Journal of Scientific Computing, 2022, 44, A198-A229.	1.3	2
6	Rank-adaptive structure-preserving model order reduction of Hamiltonian systems. ESAIM: Mathematical Modelling and Numerical Analysis, 2022, 56, 617-650.	0.8	14
7	Discovery of Slow Variables in a Class Of Multiscale Stochastic Systems Via Neural Networks. Journal of Nonlinear Science, 2022, 32, .	1.0	1
8	Reduced basis methods for time-dependent problems. Acta Numerica, 2022, 31, 265-345.	6.3	25
9	A data-driven shock capturing approach for discontinuous Galekin methods. Computers and Fluids, 2022, 245, 105592.	1.3	6
10	Characterization of image spaces of Riemann-Liouville fractional integral operators on Sobolev spaces $W_{m,p}(\mathbb{I}^d)$ . Science China Mathematics, 2021, 64, 2611-2636.	0.8	5
11	A phenomenological extended-reaction boundary model for time-domain wave-based acoustic simulations under sparse reflection conditions using a wave splitting method. Applied Acoustics, 2021, 172, 107596.	1.7	7
12	Artificial neural network for bifurcating phenomena modelled by nonlinear parametrized PDEs. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000350.	0.2	4
13	Controlling oscillations in spectral methods by local artificial viscosity governed by neural networks. Journal of Computational Physics, 2021, 431, 110144.	1.9	11
14	Structure-preserving reduced basis methods for Poisson systems. Mathematics of Computation, 2021, 90, 1701-1740.	1.1	12
15	Pointwise error estimate in difference setting for the two-dimensional nonlinear fractional complex Ginzburg-Landau equation. Advances in Computational Mathematics, 2021, 47, 1.	0.8	16
16	Modeling synchronization in globally coupled oscillatory systems using model order reduction. Chaos, 2021, 31, 053127.	1.0	3
17	Fast screening of covariates in population models empowered by machine learning. Journal of Pharmacokinetics and Pharmacodynamics, 2021, 48, 597-609.	0.8	28
18	Hybrid high-resolution RBF-ENO method. Journal of Computational Physics: X, 2021, 12, 100089.	1.1	1

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19	Physics-informed machine learning for reduced-order modeling of nonlinear problems. Journal of Computational Physics, 2021, 446, 110666.	1.9	84
20	Time-domain room acoustic simulations with extended-reacting porous absorbers using the discontinuous Galerkin method. Journal of the Acoustical Society of America, 2020, 148, 2851-2863.	0.5	13
21	Systematic sensor placement for structural anomaly detection in the absence of damaged states. Computer Methods in Applied Mechanics and Engineering, 2020, 371, 113315.	3.4	25
22	A Local Discontinuous Galerkin Method for Two-Dimensional Time Fractional Diffusion Equations. Communications on Applied Mathematics and Computation, 2020, 2, 689-709.	0.7	5
23	Waves at a fluid-solid interface: Explicit versus implicit formulation of boundary conditions using a discontinuous Galerkin method. Journal of the Acoustical Society of America, 2020, 147, 3136-3150.	0.5	7
24	Rare event simulation for large-scale structures with local nonlinearities. Computer Methods in Applied Mechanics and Engineering, 2020, 366, 113051.	3.4	2
25	An Edge Detector Based on Artificial Neural Network with Application to Hybrid Compact-WENO Finite Difference Scheme. Journal of Scientific Computing, 2020, 83, 1.	1.1	10
26	A non-intrusive multifidelity method for the reduced order modeling of nonlinear problems. Computer Methods in Applied Mechanics and Engineering, 2020, 364, 112947.	3.4	38
27	Controlling oscillations in high-order Discontinuous Galerkin schemes using artificial viscosity tuned by neural networks. Journal of Computational Physics, 2020, 409, 109304.	1.9	32
28	Constraint-aware neural networks for Riemann problems. Journal of Computational Physics, 2020, 409, 109345.	1.9	31
29	Simulation-based Anomaly Detection and Damage Localization: An application to Structural Health Monitoring. Computer Methods in Applied Mechanics and Engineering, 2020, 363, 112896.	3.4	45
30	A Homotopy Method with Adaptive Basis Selection for Computing Multiple Solutions of Differential Equations. Journal of Scientific Computing, 2020, 82, 1.	1.1	3
31	Recurrent neural network closure of parametric POD-Galerkin reduced-order models based on the Mori-Zwanzig formalism. Journal of Computational Physics, 2020, 410, 109402.	1.9	70
32	Two-Dimensional RBF-ENO Method on Unstructured Grids. Journal of Scientific Computing, 2020, 82, 76.	1.1	6
33	Conservative Model Order Reduction for Fluid Flow. Lecture Notes in Computational Science and Engineering, 2020, , 67-99.	0.1	5
34	RBF Based CWENO Method. Lecture Notes in Computational Science and Engineering, 2020, , 191-201.	0.1	1
35	Time domain room acoustic simulations using the spectral element method. Journal of the Acoustical Society of America, 2019, 145, 3299-3310.	0.5	43
36	Detecting troubled-cells on two-dimensional unstructured grids using a neural network. Journal of Computational Physics, 2019, 397, 108845.	1.9	33

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37	Estimation of groundwater storage from seismic data using deep learning. <i>Geophysical Prospecting</i> , 2019, 67, 2115-2126.	1.0	22
38	A comparative study of earthquake source models in high-order accurate tsunami simulations. <i>Ocean Modelling</i> , 2019, 141, 101429.	1.0	2
39	Entropy stable essentially nonoscillatory methods based on RBF reconstruction. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2019, 53, 925-958.	0.8	16
40	Preface to the Focused Issue on Fractional Derivatives and General Nonlocal Models. <i>Communications on Applied Mathematics and Computation</i> , 2019, 1, 503-504.	0.7	2
41	Model order reduction for large-scale structures with local nonlinearities. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 353, 491-515.	3.4	11
42	Discontinuous Galerkin discretizations of the Boltzmann-BGK equations for nearly incompressible flows: Semi-analytic time stepping and absorbing boundary layers. <i>Journal of Computational Physics</i> , 2019, 390, 175-202.	1.9	4
43	Non-intrusive reduced order modeling of unsteady flows using artificial neural networks with application to a combustion problem. <i>Journal of Computational Physics</i> , 2019, 384, 289-307.	1.9	163
44	A nodal discontinuous Galerkin finite element method for the poroelastic wave equation. <i>Computational Geosciences</i> , 2019, 23, 595-615.	1.2	11
45	Projective multiscale time-integration for electrostatic particle-in-cell methods. <i>Computer Physics Communications</i> , 2019, 236, 34-50.	3.0	1
46	Flowfield Reconstruction Method Using Artificial Neural Network. <i>AIAA Journal</i> , 2019, 57, 482-498.	1.5	69
47	Data-driven reduced order modeling for time-dependent problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 345, 75-99.	3.4	146
48	Structure-Preserving Model-Reduction of Dissipative Hamiltonian Systems. <i>Journal of Scientific Computing</i> , 2019, 81, 3-21.	1.1	16
49	Deep convolutional neural networks for estimating porous material parameters with ultrasound tomography. <i>Journal of the Acoustical Society of America</i> , 2018, 143, 1148-1158.	0.5	45
50	An artificial neural network as a troubled-cell indicator. <i>Journal of Computational Physics</i> , 2018, 367, 166-191.	1.9	80
51	Non-intrusive reduced order modeling of nonlinear problems using neural networks. <i>Journal of Computational Physics</i> , 2018, 363, 55-78.	1.9	299
52	Discontinuous Galerkin scheme for the spherical shallow water equations with applications to tsunami modeling and prediction. <i>Journal of Computational Physics</i> , 2018, 362, 425-448.	1.9	29
53	Greedy Nonintrusive Reduced Order Model for Fluid Dynamics. <i>AIAA Journal</i> , 2018, 56, 4927-4943.	1.5	42
54	Communication-aware adaptive Parareal with application to a nonlinear hyperbolic system of partial differential equations. <i>Journal of Computational Physics</i> , 2018, 371, 483-505.	1.9	14

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55	Reduced order modeling for nonlinear structural analysis using Gaussian process regression. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 341, 807-826.	3.4	156
56	High-Order Accurate Local Schemes for Fractional Differential Equations. <i>Journal of Scientific Computing</i> , 2017, 70, 355-385.	1.1	6
57	Efficient Preconditioning of hp-FEM Matrices by Hierarchical Low-Rank Approximations. <i>Journal of Scientific Computing</i> , 2017, 72, 49-80.	1.1	6
58	High-Order Accurate Adaptive Kernel Compression Time-Stepping Schemes for Fractional Differential Equations. <i>Journal of Scientific Computing</i> , 2017, 72, 1169-1195.	1.1	22
59	A Kernel Compression Scheme for Fractional Differential Equations. <i>SIAM Journal on Numerical Analysis</i> , 2017, 55, 496-520.	1.1	68
60	Sparse identification of a predator-prey system from simulation data of a convection model. <i>Physics of Plasmas</i> , 2017, 24, .	0.7	70
61	Adaptive WENO Methods Based on Radial Basis Function Reconstruction. <i>Journal of Scientific Computing</i> , 2017, 72, 986-1020.	1.1	21
62	Efficient preconditioning of $h$ -FEM matrix sequences with slowly-varying coefficients: An application to topology optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 322, 81-96.	3.4	0
63	Space-dependent source determination in a time-fractional diffusion equation using a local discontinuous Galerkin method. <i>BIT Numerical Mathematics</i> , 2017, 57, 685-707.	1.0	26
64	Structure Preserving Model Reduction of Parametric Hamiltonian Systems. <i>SIAM Journal of Scientific Computing</i> , 2017, 39, A2616-A2644.	1.3	55
65	On the Use of ANOVA Expansions in Reduced Basis Methods for Parametric Partial Differential Equations. <i>Journal of Scientific Computing</i> , 2016, 69, 292-313.	1.1	9
66	Spectral Methods for Hyperbolic Problems <sup>11</sup> This revised and updated chapter is based partly on work from the author's original article first published in the <i>Journal of Computational and Applied Mathematics</i> , Volume 128, Gottlieb and Hesthaven, Elsevier, 2001.. <i>Handbook of Numerical Analysis</i> , 2016, 17, 441-466.	0.9	0
67	Fault Tolerance in the Parareal Method. , 2016, , .		2
68	Certified Error Control. <i>SpringerBriefs in Mathematics</i> , 2016, , 45-66.	0.2	1
69	The Empirical Interpolation Method. <i>SpringerBriefs in Mathematics</i> , 2016, , 67-85.	0.2	0
70	Modeling 3D Magma Dynamics Using a Discontinuous Galerkin Method. <i>Communications in Computational Physics</i> , 2015, 18, 230-246.	0.7	5
71	Hyperbolic Problems: Theory and Computation. <i>Journal of Scientific Computing</i> , 2015, 64, 587-590.	1.1	0
72	Reduced Basis Multiscale Finite Element Methods for Elliptic Problems. <i>Multiscale Modeling and Simulation</i> , 2015, 13, 316-337.	0.6	14

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73	Model Reduction. , 2015, , 923-925.		0
74	Numerical Approximation of the Fractional Laplacian via $h$ - $p$ -finite Elements, with an Application to Image Denoising. Journal of Scientific Computing, 2015, 65, 249-270.	1.1	54
75	A multi-domain spectral method for time-fractional differential equations. Journal of Computational Physics, 2015, 293, 157-172.	1.9	52
76	A parareal method for time-fractional differential equations. Journal of Computational Physics, 2015, 293, 173-183.	1.9	34
77	Local discontinuous Galerkin methods for fractional ordinary differential equations. BIT Numerical Mathematics, 2015, 55, 967-985.	1.0	43
78	Nodal discontinuous Galerkin methods for fractional diffusion equations on 2D domain with triangular meshes. Journal of Computational Physics, 2015, 298, 678-694.	1.9	33
79	Multilevel and local time-stepping discontinuous Galerkin methods for magma dynamics. Computational Geosciences, 2015, 19, 965-978.	1.2	7
80	Accuracy of High Order and Spectral Methods for Hyperbolic Conservation Laws with Discontinuous Solutions. SIAM Journal on Numerical Analysis, 2015, 53, 1857-1875.	1.1	4
81	Fast Prediction and Evaluation of Gravitational Waveforms Using Surrogate Models. Physical Review X, 2014, 4, .	2.8	137
82	Discontinuous Galerkin Method for Fractional Convection-Diffusion Equations. SIAM Journal on Numerical Analysis, 2014, 52, 405-423.	1.1	128
83	High-Order Multiscale Finite Element Method for Elliptic Problems. Multiscale Modeling and Simulation, 2014, 12, 650-666.	0.6	17
84	Efficient greedy algorithms for high-dimensional parameter spaces with applications to empirical interpolation and reduced basis methods. ESAIM: Mathematical Modelling and Numerical Analysis, 2014, 48, 259-283.	0.8	82
85	Analysis and application of the nodal discontinuous Galerkin method for wave propagation in metamaterials. Journal of Computational Physics, 2014, 258, 915-930.	1.9	56
86	Stable multi-domain spectral penalty methods for fractional partial differential equations. Journal of Computational Physics, 2014, 257, 241-258.	1.9	50
87	Multiscale modelling of sound propagation through the lung parenchyma. ESAIM: Mathematical Modelling and Numerical Analysis, 2014, 48, 27-52.	0.8	5
88	On the Use of Reduced Basis Methods to Accelerate and Stabilize the Parareal Method. , 2014, , 187-214.		14
89	Multi-dimensional hybrid Fourier continuationâ€“WENO solvers for conservation laws. Journal of Computational Physics, 2013, 253, 209-225.	1.9	13
90	High-Order Discontinuous Galerkin Methods by GPU Metaprogramming. Lecture Notes in Earth System Sciences, 2013, , 353-374.	0.5	6

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91	A generalization of the Wiener rational basis functions on infinite intervals, Part II " Numerical investigation. Journal of Computational and Applied Mathematics, 2013, 237, 18-34.	1.1	3
92	Local Discontinuous Galerkin methods for fractional diffusion equations. ESAIM: Mathematical Modelling and Numerical Analysis, 2013, 47, 1845-1864.	0.8	133
93	Numerical simulations with a first-order BSSN formulation of Einstein's field equations. Physical Review D, 2012, 85, .	1.6	29
94	Certified Reduced Basis Method for the Electric Field Integral Equation. SIAM Journal of Scientific Computing, 2012, 34, A1777-A1799.	1.3	21
95	Solving Wave Equations on Unstructured Geometries. , 2012, , 225-242.		4
96	A reduced basis method for electromagnetic scattering by multiple particles in three dimensions. Journal of Computational Physics, 2012, 231, 7756-7779.	1.9	32
97	Preface - Special volume in honor of Professor David Gottlieb. ESAIM: Mathematical Modelling and Numerical Analysis, 2012, 46, 513-513.	0.8	0
98	Computation of connection coefficients and measure modifications for orthogonal polynomials. BIT Numerical Mathematics, 2012, 52, 457-483.	1.0	8
99	Certified reduced basis method for electromagnetic scattering and radar cross section estimation. Computer Methods in Applied Mechanics and Engineering, 2012, 233-236, 92-108.	3.4	18
100	Efficient Solution of Ordinary Differential Equations with High-Dimensional Parametrized Uncertainty. Communications in Computational Physics, 2011, 10, 253-278.	0.7	15
101	Modeling Magma Dynamics with a Mixed Fourier Collocation " Discontinuous Galerkin Method. Communications in Computational Physics, 2011, 10, 433-452.	0.7	7
102	Multi-domain Fourier-continuation/WENO hybrid solver for conservation laws. Journal of Computational Physics, 2011, 230, 8779-8796.	1.9	21
103	Adaptive sparse grid algorithms with applications to electromagnetic scattering under uncertainty. Applied Numerical Mathematics, 2011, 61, 24-37.	1.2	25
104	The reduced basis method for the electric field integral equation. Journal of Computational Physics, 2011, 230, 5532-5555.	1.9	54
105	Reduced Basis Catalogs for Gravitational Wave Templates. Physical Review Letters, 2011, 106, 221102.	2.9	76
106	Viscous Shock Capturing in a Time-Explicit Discontinuous Galerkin Method. Mathematical Modelling of Natural Phenomena, 2011, 6, 57-83.	0.9	76
107	A Seamless Reduced Basis Element Method for 2D Maxwell's Problem: An Introduction. Lecture Notes in Computational Science and Engineering, 2011, , 141-152.	0.1	10
108	On ANOVA expansions and strategies for choosing the anchor point. Applied Mathematics and Computation, 2010, 217, 3274-3285.	1.4	28

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109	A natural-norm Successive Constraint Method for inf-sup lower bounds. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 1963-1975.	3.4	67
110	High-order accurate thin layer approximations for time-domain electromagnetics, Part II: Transmission layers. <i>Journal of Computational and Applied Mathematics</i> , 2010, 234, 2587-2608.	1.1	11
111	Persistent junk solutions in time-domain modeling of extreme mass ratio binaries. <i>Physical Review D</i> , 2010, 81, .	1.6	16
112	Discontinuous Galerkin method for the spherically reduced Baumgarte-Shapiro-Shibata-Nakamura system with second-order operators. <i>Physical Review D</i> , 2010, 82, .	1.6	35
113	A generalization of the Wiener rational basis functions on infinite intervals: Part I – derivation and properties. <i>Mathematics of Computation</i> , 2010, 80, 1557-1583.	1.1	5
114	High-porosity channels for melt migration in the mantle: Top is the dunite and bottom is the harzburgite and lherzolite. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	53
115	Certified Reduced Basis Methods and Output Bounds for the Harmonic Maxwell's Equations. <i>SIAM Journal of Scientific Computing</i> , 2010, 32, 970-996.	1.3	69
116	High-Order Discontinuous Galerkin Methods for Computational Electromagnetics and Uncertainty Quantification. <i>Mathematics in Industry</i> , 2010, , 403-412.	0.1	3
117	Improved successive constraint method based <i>a posteriori</i> error estimate for reduced basis approximation of 2D Maxwell's problem. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2009, 43, 1099-1116.	0.8	33
118	Discontinuous Galerkin method for computing gravitational waveforms from extreme mass ratio binaries. <i>Classical and Quantum Gravity</i> , 2009, 26, 165010.	1.5	36
119	A Fast Stroud-Based Collocation Method for Statistically Characterizing EMI/EMC Phenomena on Complex Platforms. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2009, 51, 301-311.	1.4	69
120	Nodal discontinuous Galerkin methods on graphics processors. <i>Journal of Computational Physics</i> , 2009, 228, 7863-7882.	1.9	250
121	Polymorphic nodal elements and their application in discontinuous Galerkin methods. <i>Journal of Computational Physics</i> , 2009, 228, 1573-1590.	1.9	73
122	Implicit – explicit time integration of a high-order particle-in-cell method with hyperbolic divergence cleaning. <i>Computer Physics Communications</i> , 2009, 180, 1760-1767.	3.0	85
123	High-order accurate thin layer approximations for time-domain electromagnetics. Part I: General metal backed coatings. <i>Journal of Computational and Applied Mathematics</i> , 2009, 231, 598-611.	1.1	11
124	Efficient RCS estimation of 2-dimensional cylinder with random holes. , 2009, , .		0
125	IMEX Evolution of Scalar Fields on Curved Backgrounds. <i>Communications in Computational Physics</i> , 2009, 6, 1063-1094.	0.7	10
126	DG-FEM solution for nonlinear wave-structure interaction using Boussinesq-type equations. <i>Coastal Engineering</i> , 2008, 55, 197-208.	1.7	43



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127	A monotonic evaluation of lower bounds for inf-sup stability constants in the frame of reduced basis approximations. <i>Comptes Rendus Mathematique</i> , 2008, 346, 1295-1300.	0.1	22
128	Numerical modeling of double-layered piezoelectric transducer systems using a high-order discontinuous Galerkin method. <i>Computers and Structures</i> , 2008, 86, 1747-1756.	2.4	5
129	A fast and parallel stroud-based stochastic collocation method for statistical EMI/EMC analysis. , 2008, , .		4
130	Biased liquid crystal photonic bandgap fiber. , 2008, , .		0
131	Filtering in Legendre spectral methods. <i>Mathematics of Computation</i> , 2008, 77, 1425-1452.	1.1	62
132	Nodal Discontinuous Galerkin Methods. <i>Texts in Applied Mathematics</i> , 2008, , .	0.4	820
133	Trigonometric polynomial approximation. , 2007, , 19-42.		0
134	Polynomial spectral methods. , 2007, , 117-134.		0
135	Spectral methods on general grids. , 2007, , 235-248.		0
136	Efficient Computation of RCS From Scatterers of Uncertain Shapes. <i>IEEE Transactions on Antennas and Propagation</i> , 2007, 55, 1437-1448.	3.1	61
137	Waves 2005 Conference. <i>Journal of Computational and Applied Mathematics</i> , 2007, 204, 197-198.	1.1	0
138	Nodal DG-FEM solution of high-order Boussinesq-type equations. <i>Journal of Engineering Mathematics</i> , 2007, 56, 351-370.	0.6	48
139	Spectral interpolation in non-orthogonal domains: algorithms and applications. <i>Journal of Engineering Mathematics</i> , 2007, 56, 201-202.	0.6	2
140	Application of implicitâ€“explicit high order Rungeâ€“Kutta methods to discontinuous-Galerkin schemes. <i>Journal of Computational Physics</i> , 2007, 225, 1753-1781.	1.9	130
141	Developments in Overlapping Schwarz Preconditioning of High-Order Nodal Discontinuous Galerkin Discretizations. , 2007, , 325-332.		0
142	Simulations of the Weibel Instability with a High-Order Discontinuous Galerkin Particle-In-Cell Solver. , 2006, , .		7
143	Computational Modeling of Uncertainty in Time-Domain Electromagnetics. <i>SIAM Journal of Scientific Computing</i> , 2006, 28, 751-775.	1.3	89
144	A level set discontinuous Galerkin method for free surface flows. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 195, 3406-3429.	3.4	42

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145	Reduced Navier–Stokes equations near a flow boundary. <i>Physica D: Nonlinear Phenomena</i> , 2006, 217, 161-185.	1.3	1
146	High-order nodal discontinuous Galerkin particle-in-cell method on unstructured grids. <i>Journal of Computational Physics</i> , 2006, 214, 96-121.	1.9	169
147	Idempotent filtering in spectral and spectral element methods. <i>Journal of Computational Physics</i> , 2006, 220, 41-58.	1.9	24
148	Non-Linear PML Equations for Time Dependent Electromagnetics in Three Dimensions. <i>Journal of Scientific Computing</i> , 2006, 28, 125-137.	1.1	18
149	Pad�-Legendre Interpolants for Gibbs Reconstruction. <i>Journal of Scientific Computing</i> , 2006, 28, 337-359.	1.1	26
150	Predicting transport by Lagrangian coherent structures with a high-order method. <i>Theoretical and Computational Fluid Dynamics</i> , 2006, 21, 39-58.	0.9	15
151	A spectral multidomain penalty method model for the simulation of high Reynolds number localized incompressible stratified turbulence. <i>Journal of Computational Physics</i> , 2005, 202, 298-322.	1.9	68
152	Analytical and numerical study on grating depth effects in grating coupled waveguide sensors. <i>Applied Physics B: Lasers and Optics</i> , 2005, 81, 65-73.	1.1	10
153	Uncertainty analysis for the steady-state flows in a dual throat nozzle. <i>Journal of Computational Physics</i> , 2005, 204, 378-398.	1.9	59
154	Spectral Methods Based on Prolate Spheroidal Wave Functions for Hyperbolic PDEs. <i>SIAM Journal on Numerical Analysis</i> , 2005, 43, 1912-1933.	1.1	51
155	High-Order Collocation Methods for Differential Equations with Random Inputs. <i>SIAM Journal of Scientific Computing</i> , 2005, 27, 1118-1139.	1.3	1,204
156	High-order nodal discontinuous Galerkin methods for the Maxwell eigenvalue problem. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2004, 362, 493-524.	1.6	101
157	Fast and accurate boundary variation method for multilayered diffraction optics. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2004, 21, 757.	0.8	5
158	On the constants in hp-finite element trace inverse inequalities. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2003, 192, 2765-2773.	3.4	172
159	High-order accurate methods in time-domain computational electromagnetics: A review. <i>Advances in Imaging and Electron Physics</i> , 2003, , 59-123.	0.1	84
160	High-order localized time integration for grid-induced stiffness. , 2003, , 1883-1886.		1
161	Multidomain pseudospectral time-domain simulations of scattering by objects buried in lossy media. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2002, 40, 1366-1373.	2.7	79
162	Nodal High-Order Methods on Unstructured Grids. <i>Journal of Computational Physics</i> , 2002, 181, 186-221.	1.9	624

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163	Nodal High-Order Discontinuous Galerkin Methods for the Spherical Shallow Water Equations. Journal of Computational Physics, 2002, 181, 499-525.	1.9	203
164	A multi-domain Chebyshev collocation method for predicting ultrasonic field parameters in complex material geometries. Ultrasonics, 2002, 40, 177-180.	2.1	5
165	Long Time Behavior of the Perfectly Matched Layer Equations in Computational Electromagnetics. Journal of Scientific Computing, 2002, 17, 405-422.	1.1	105
166	Fast and accurate modeling of waveguide grating couplers – Three-dimensional vectorial case. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2001, 18, 2876.	0.8	11
167	Staircase-free finite-difference time-domain formulation for general materials in complex geometries. IEEE Transactions on Antennas and Propagation, 2001, 49, 749-756.	3.1	44
168	Spectral methods for hyperbolic problems. Journal of Computational and Applied Mathematics, 2001, 128, 83-131.	1.1	249
169	Convergent Cartesian Grid Methods for Maxwell's Equations in Complex Geometries. Journal of Computational Physics, 2001, 170, 39-80.	1.9	130
170	Adaptive High-Order Finite-Difference Method for Nonlinear Wave Problems. Journal of Scientific Computing, 2001, 16, 47-67.	1.1	9
171	Spectral methods for hyperbolic problems. , 2001, , 83-131.		3
172	<title>Rigorous three-dimensional analysis of surface-relief gratings using a spectral collocation method</title>. , 2000, 3951, 2.		0
173	A Pseudo-spectral Scheme for the Incompressible Navier–Stokes Equations Using Unstructured Nodal Elements. Journal of Computational Physics, 2000, 164, 1-21.	1.9	45
174	Spectral penalty methods. Applied Numerical Mathematics, 2000, 33, 23-41.	1.2	75
175	Multidomain pseudospectral computation of Maxwell's equations in 3-D general curvilinear coordinates. Applied Numerical Mathematics, 2000, 33, 281-289.	1.2	51
176	A pseudospectral collocation time-domain method for diffractive optics. Applied Numerical Mathematics, 2000, 33, 199-206.	1.2	3
177	<title>Rigorous analysis of focusing grating couplers using a time-domain spectral collocation method</title>. , 2000, 3951, 11.		0
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