Jan Hesthaven

List of Publications by Year
in descending order

219 papers	11,052 citations	29994 54 h-index	34900 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 Wm,p (Î©). 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. Geophysical Prospecting, 2019, 67, 2115-2126.	1.0	22
38	A comparative study of earthquake source models in high-order accurate tsunami simulations. Ocean Modelling, 2019, 141, 101429.	1.0	2
39	Entropy stable essentially nonoscillatory methods based on RBF reconstruction. ESAIM: Mathematical Modelling and Numerical Analysis, 2019, 53, 925-958.	0.8	16
40	Preface to the Focused Issue on Fractional Derivatives and General Nonlocal Models. Communications on Applied Mathematics and Computation, 2019, 1, 503-504.	0.7	2
41	Model order reduction for large-scale structures with local nonlinearities. Computer Methods in Applied Mechanics and Engineering, 2019, 353, 491-515.	3.4	11
42	Discontinuous Galerkin discretizations of the Boltzmannâ€“BGK equations for nearly incompressible flows: Semi-analytic time stepping and absorbing boundary layers. Journal of Computational Physics, 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. Journal of Computational Physics, 2019, 384, 289-307.	1.9	163
44	A nodal discontinuous Galerkin finite element method for the poroelastic wave equation. Computational Geosciences, 2019, 23, 595-615.	1.2	11
45	Projective multiscale time-integration for electrostatic particle-in-cell methods. Computer Physics Communications, 2019, 236, 34-50.	3.0	1
46	Flowfield Reconstruction Method Using Artificial Neural Network. AIAA Journal, 2019, 57, 482-498.	1.5	69
47	Data-driven reduced order modeling for time-dependent problems. Computer Methods in Applied Mechanics and Engineering, 2019, 345, 75-99.	3.4	146
48	Structure-Preserving Model-Reduction of Dissipative Hamiltonian Systems. Journal of Scientific Computing, 2019, 81, 3-21.	1.1	16
49	Deep convolutional neural networks for estimating porous material parameters with ultrasound tomography. Journal of the Acoustical Society of America, 2018, 143, 1148-1158.	0.5	45
50	An artificial neural network as a troubled-cell indicator. Journal of Computational Physics, 2018, 367, 166-191.	1.9	80
51	Non-intrusive reduced order modeling of nonlinear problems using neural networks. Journal of Computational Physics, 2018, 363, 55-78.	1.9	299
52	Discontinuous Galerkin scheme for the spherical shallow water equations with applications to tsunami modeling and prediction. Journal of Computational Physics, 2018, 362, 425-448.	1.9	29
53	Greedy Nonintrusive Reduced Order Model for Fluid Dynamics. AIAA Journal, 2018, 56, 4927-4943.	1.5	42
54	Communication-aware adaptive Parareal with application to a nonlinear hyperbolic system of partial differential equations. Journal of Computational Physics, 2018, 371, 483-505.	1.9	14

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55	Reduced order modeling for nonlinear structural analysis using Gaussian process regression. Computer Methods in Applied Mechanics and Engineering, 2018, 341, 807-826.	3.4	156
56	High-Order Accurate Local Schemes for Fractional Differential Equations. Journal of Scientific Computing, 2017, 70, 355-385.	1.1	6
57	Efficient Preconditioning of hp-FEM Matrices by Hierarchical Low-Rank Approximations. Journal of Scientific Computing, 2017, 72, 49-80.	1.1	6
58	High-Order Accurate Adaptive Kernel Compression Time-Stepping Schemes for Fractional Differential Equations. Journal of Scientific Computing, 2017, 72, 1169-1195.	1.1	22
59	A Kernel Compression Scheme for Fractional Differential Equations. SIAM Journal on Numerical Analysis, 2017, 55, 496-520.	1.1	68
60	Sparse identification of a predator-prey system from simulation data of a convection model. Physics of Plasmas, 2017, 24, .	0.7	70
61	Adaptive WENO Methods Based on Radial Basis Function Reconstruction. Journal of Scientific Computing, 2017, 72, 986-1020.	1.1	21
62	Efficient preconditioning of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="mml54" display="inline" overflow="scroll" altimg="si54.gif"><mml:mi>h</mml:mi><mml:mi>p</mml:mi></mml:math>-FEM matrix sequences with slowly-varying coefficients: An application to topology optimization. Computer Methods in Applied Mechanics and Engineering, 2017, 322, 81-96.	3.4	0
63	Space-dependent source determination in a time-fractional diffusion equation using a local discontinuous Galerkin method. BIT Numerical Mathematics, 2017, 57, 685-707.	1.0	26
64	Structure Preserving Model Reduction of Parametric Hamiltonian Systems. SIAM Journal of Scientific Computing, 2017, 39, A2616-A2644.	1.3	55
65	On the Use of ANOVA Expansions in Reduced Basis Methods for Parametric Partial Differential Equations. Journal of Scientific Computing, 2016, 69, 292-313.	1.1	9
66	Spectral Methods for Hyperbolic Problems11This revised and updated chapter is based partly on work from the author's original article first published in the Journal of Computational and Applied Mathematics, Volume 128, Gottlieb and Hesthaven, Elsevier, 2001.. Handbook of Numerical Analysis, 2016, 17, 441-466.	0.9	0
67	Fault Tolerance in the Parareal Method. , 2016, , .		2
68	Certified Error Control. SpringerBriefs in Mathematics, 2016, , 45-66.	0.2	1
69	The Empirical Interpolation Method. SpringerBriefs in Mathematics, 2016, , 67-85.	0.2	0
70	Modeling 3D Magma Dynamics Using a Discontinuous Galerkin Method. Communications in Computational Physics, 2015, 18, 230-246.	0.7	5
71	Hyperbolic Problems: Theory and Computation. Journal of Scientific Computing, 2015, 64, 587-590.	1.1	0
72	Reduced Basis Multiscale Finite Element Methods for Elliptic Problems. Multiscale Modeling and Simulation, 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 $$hp$$ 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 â€" 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 Einsteinâ€™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 â€" 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 Maxwellâ€™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. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 1963-1975.	3.4	67
110	High-order accurate thin layer approximations for time-domain electromagnetics, Part II: Transmission layers. Journal of Computational and Applied Mathematics, 2010, 234, 2587-2608.	1.1	11
111	Persistent junk solutions in time-domain modeling of extreme mass ratio binaries. Physical Review D, 2010, 81, .	1.6	16
112	Discontinuous Galerkin method for the spherically reduced Baumgarte-Shapiro-Shibata-Nakamura system with second-order operators. Physical Review D, 2010, 82, .	1.6	35
113	A generalization of the Wiener rational basis functions on infinite intervals: Part Iâ€“derivation and properties. Mathematics of Computation, 2010, 80, 1557-1583.	1.1	5
114	Highâ€porosity channels for melt migration in the mantle: Top is the dunite and bottom is the harzburgite and lherzolite. Geophysical Research Letters, 2010, 37, .	1.5	53
115	Certified Reduced Basis Methods and Output Bounds for the Harmonic Maxwell's Equations. SIAM Journal of Scientific Computing, 2010, 32, 970-996.	1.3	69
116	High-Order Discontinuous Galerkin Methods for Computational Electromagnetics and Uncertainty Quantification. Mathematics in Industry, 2010, , 403-412.	0.1	3
117	Improved successive constraint method baseda posteriorierror estimate for reduced basis approximation of 2D Maxwell's problem. ESAIM: Mathematical Modelling and Numerical Analysis, 2009, 43, 1099-1116.	0.8	33
118	Discontinuous Galerkin method for computing gravitational waveforms from extreme mass ratio binaries. Classical and Quantum Gravity, 2009, 26, 165010.	1.5	36
119	A Fast Stroud-Based Collocation Method for Statistically Characterizing EMI/EMC Phenomena on Complex Platforms. IEEE Transactions on Electromagnetic Compatibility, 2009, 51, 301-311.	1.4	69
120	Nodal discontinuous Galerkin methods on graphics processors. Journal of Computational Physics, 2009, 228, 7863-7882.	1.9	250
121	Polymorphic nodal elements and their application in discontinuous Galerkin methods. Journal of Computational Physics, 2009, 228, 1573-1590.	1.9	73
122	Implicitâ€explicit time integration of a high-order particle-in-cell method with hyperbolic divergence cleaning. Computer Physics Communications, 2009, 180, 1760-1767.	3.0	85
123	High-order accurate thin layer approximations for time-domain electromagnetics. Part I: General metal backed coatings. Journal of Computational and Applied Mathematics, 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. Communications in Computational Physics, 2009, 6, 1063-1094.	0.7	10
126	DG-FEM solution for nonlinear wave-structure interaction using Boussinesq-type equations. Coastal Engineering, 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. Comptes Rendus Mathematique, 2008, 346, 1295-1300.	0.1	22
128	Numerical modeling of double-layered piezoelectric transducer systems using a high-order discontinuous Galerkin method. Computers and Structures, 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. Mathematics of Computation, 2008, 77, 1425-1452.	1.1	62
132	Nodal Discontinuous Galerkin Methods. Texts in Applied Mathematics, 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. IEEE Transactions on Antennas and Propagation, 2007, 55, 1437-1448.	3.1	61
137	Waves 2005 Conference. Journal of Computational and Applied Mathematics, 2007, 204, 197-198.	1.1	0
138	Nodal DG-FEM solution of high-order Boussinesq-type equations. Journal of Engineering Mathematics, 2007, 56, 351-370.	0.6	48
139	Spectral interpolation in non-orthogonal domains: algorithms and applications. Journal of Engineering Mathematics, 2007, 56, 201-202.	0.6	2
140	Application of implicitâ€“explicit high order Rungeâ€“Kutta methods to discontinuous-Galerkin schemes. Journal of Computational Physics, 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 Discontinous Galerkin Particle-In-Cell Solver. , 2006, , .		7
143	Computational Modeling of Uncertainty in Time-Domain Electromagnetics. SIAM Journal of Scientific Computing, 2006, 28, 751-775.	1.3	89
144	A level set discontinuous Galerkin method for free surface flows. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 3406-3429.	3.4	42

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145	Reduced Navierâ€“Stokes equations near a flow boundary. Physica D: Nonlinear Phenomena, 2006, 217, 161-185.	1.3	1
146	High-order nodal discontinuous Galerkin particle-in-cell method on unstructured grids. Journal of Computational Physics, 2006, 214, 96-121.	1.9	169
147	Idempotent filtering in spectral and spectral element methods. Journal of Computational Physics, 2006, 220, 41-58.	1.9	24
148	Non-Linear PML Equations for Time Dependent Electromagnetics in Three Dimensions. Journal of Scientific Computing, 2006, 28, 125-137.	1.1	18
149	PadÃ©-Legendre Interpolants for Gibbs Reconstruction. Journal of Scientific Computing, 2006, 28, 337-359.	1.1	26
150	Predicting transport by Lagrangian coherent structures with a high-order method. Theoretical and Computational Fluid Dynamics, 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. Journal of Computational Physics, 2005, 202, 298-322.	1.9	68
152	Analytical and numerical study on grating depth effects in grating coupled waveguide sensors. Applied Physics B: Lasers and Optics, 2005, 81, 65-73.	1.1	10
153	Uncertainty analysis for the steady-state flows in a dual throat nozzle. Journal of Computational Physics, 2005, 204, 378-398.	1.9	59
154	Spectral Methods Based on Prolate Spheroidal Wave Functions for Hyperbolic PDEs. SIAM Journal on Numerical Analysis, 2005, 43, 1912-1933.	1.1	51
155	High-Order Collocation Methods for Differential Equations with Random Inputs. SIAM Journal of Scientific Computing, 2005, 27, 1118-1139.	1.3	1,204
156	Highâ€“order nodal discontinuous Galerkin methods for the Maxwell eigenvalue problem. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2004, 362, 493-524.	1.6	101
157	Fast and accurate boundary variation method for multilayered diffraction optics. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2004, 21, 757.	0.8	5
158	On the constants in hp-finite element trace inverse inequalities. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 2765-2773.	3.4	172
159	High-order accurate methods in time-domain computational electromagnetics: A review. Advances in Imaging and Electron Physics, 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. IEEE Transactions on Geoscience and Remote Sensing, 2002, 40, 1366-1373.	2.7	79
162	Nodal High-Order Methods on Unstructured Grids. Journal of Computational Physics, 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 IIâ€ƒThree-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 Navierâ€“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
178	Ground states of dispersion-managed nonlinear SchrÃ¶dinger equation. Physical Review E, 2000, 62, 7358-7364.	0.8	17
179	Fast and accurate modeling of waveguide grating couplers. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2000, 17, 1565.	0.8	16
180	Stable Spectral Methods on Tetrahedral Elements. SIAM Journal of Scientific Computing, 2000, 21, 2352-2380.	1.3	81

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181	Rigorous 3-D analysis of focusing grating couplers using a spectral collocation method. , 2000, , .		0
182	Analysis of grating couplers using the Boundary Variation method. , 2000, , .		0
183	Stable spectral methods for conservation laws on triangles with unstructured grids. Computer Methods in Applied Mechanics and Engineering, 1999, 175, 361-381.	3.4	37
184	Well-posed Perfectly Matched Layers for Advective Acoustics. Journal of Computational Physics, 1999, 154, 266-283.	1.9	105
185	Spectral Collocation Time-Domain Modeling of Diffractive Optical Elements. Journal of Computational Physics, 1999, 155, 287-306.	1.9	77
186	A pseudospectral method for time-domain computation of electromagnetic scattering by bodies of revolution. IEEE Transactions on Antennas and Propagation, 1999, 47, 132-141.	3.1	60
187	Pseudospectral method for the analysis of diffractive optical elements. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1999, 16, 1124.	0.8	11
188	N-space staircase-free Finite-Difference Time-Domain formulation for arbitrary material distributions: numerical investigations of a focusing grating coupler in dielectric waveguides. , 1999, , .		1
189	On the Analysis and Construction of Perfectly Matched Layers for the Linearized Euler Equations. Journal of Computational Physics, 1998, 142, 129-147.	1.9	99
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