Jan Hesthaven

List of Publications by Year in descending order

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	High-Order Collocation Methods for Differential Equations with Random Inputs. SIAM Journal of Scientific Computing, 2005, 27, 1118-1139.	1.3	1,204
2	Nodal Discontinuous Galerkin Methods. Texts in Applied Mathematics, 2008, , .	0.4	820
3	Nodal High-Order Methods on Unstructured Grids. Journal of Computational Physics, 2002, 181, 186-221.	1.9	624
4	Non-intrusive reduced order modeling of nonlinear problems using neural networks. Journal of Computational Physics, 2018, 363, 55-78.	1.9	299
5	Nodal discontinuous Galerkin methods on graphics processors. Journal of Computational Physics, 2009, 228, 7863-7882.	1.9	250
6	Spectral methods for hyperbolic problems. Journal of Computational and Applied Mathematics, 2001, 128, 83-131.	1.1	249
7	Nodal High-Order Discontinuous Galerkin Methods for the Spherical Shallow Water Equations. Journal of Computational Physics, 2002, 181, 499-525.	1.9	203
8	From Electrostatics to Almost Optimal Nodal Sets for Polynomial Interpolation in a Simplex. SIAM Journal on Numerical Analysis, 1998, 35, 655-676.	1.1	201
9	On the constants in hp-finite element trace inverse inequalities. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 2765-2773.	3.4	172
10	High-order nodal discontinuous Galerkin particle-in-cell method on unstructured grids. Journal of Computational Physics, 2006, 214, 96-121.	1.9	169
11	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
12	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
13	Data-driven reduced order modeling for time-dependent problems. Computer Methods in Applied Mechanics and Engineering, 2019, 345, 75-99.	3.4	146
14	Spectral Simulations of Electromagnetic Wave Scattering. Journal of Computational Physics, 1997, 134, 216-230.	1.9	137
15	Fast Prediction and Evaluation of Gravitational Waveforms Using Surrogate Models. Physical Review X, 2014, 4, .	2.8	137
16	Local Discontinuous Galerkin methods for fractional diffusion equations. ESAIM: Mathematical Modelling and Numerical Analysis, 2013, 47, 1845-1864.	0.8	133
17	Convergent Cartesian Grid Methods for Maxwell's Equations in Complex Geometries. Journal of Computational Physics, 2001, 170, 39-80.	1.9	130
18	Application of implicitâ€“explicit high order Rungeâ€“Kutta methods to discontinuous-Galerkin schemes. Journal of Computational Physics, 2007, 225, 1753-1781.	1.9	130

#	Article	IF	Citations
19	Discontinuous Galerkin Method for Fractional Convection-Diffusion Equations. SIAM Journal on Numerical Analysis, 2014, 52, 405-423.	1.1	128
20	A Stable Penalty Method for the Compressible Navierâ€“Stokes Equations: I. Open Boundary Conditions. SIAM Journal of Scientific Computing, 1996, 17, 579-612.	1.3	108
21	Well-posed Perfectly Matched Layers for Advective Acoustics. Journal of Computational Physics, 1999, 154, 266-283.	1.9	105
22	Long Time Behavior of the Perfectly Matched Layer Equations in Computational Electromagnetics. Journal of Scientific Computing, 2002, 17, 405-422.	1.1	105
23	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
24	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
25	Computational Modeling of Uncertainty in Time-Domain Electromagnetics. SIAM Journal of Scientific Computing, 2006, 28, 751-775.	1.3	89
26	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
27	High-order accurate methods in time-domain computational electromagnetics: A review. Advances in Imaging and Electron Physics, 2003, , 59-123.	0.1	84
28	Physics-informed machine learning for reduced-order modeling of nonlinear problems. Journal of Computational Physics, 2021, 446, 110666.	1.9	84
29	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
30	Stable Spectral Methods on Tetrahedral Elements. SIAM Journal of Scientific Computing, 2000, 21, 2352-2380.	1.3	81
31	An artificial neural network as a troubled-cell indicator. Journal of Computational Physics, 2018, 367, 166-191.	1.9	80
32	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
33	Spectral Collocation Time-Domain Modeling of Diffractive Optical Elements. Journal of Computational Physics, 1999, 155, 287-306.	1.9	77
34	Reduced Basis Catalogs for Gravitational Wave Templates. Physical Review Letters, 2011, 106, 221102.	2.9	76
35	Viscous Shock Capturing in a Time-Explicit Discontinuous Galerkin Method. Mathematical Modelling of Natural Phenomena, 2011, 6, 57-83.	0.9	76
36	Spectral penalty methods. Applied Numerical Mathematics, 2000, 33, 23-41.	1.2	75

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37	A Stable Penalty Method for the Compressible Navier--Stokes Equations: III. Multidimensional Domain Decomposition Schemes. SIAM Journal of Scientific Computing, 1998, 20, 62-93.	1.3	73
38	Polymorphic nodal elements and their application in discontinuous Galerkin methods. Journal of Computational Physics, 2009, 228, 1573-1590.	1.9	73
39	Sparse identification of a predator-prey system from simulation data of a convection model. Physics of Plasmas, 2017, 24, .	0.7	70
40	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
41	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
42	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
43	Flowfield Reconstruction Method Using Artificial Neural Network. AIAA Journal, 2019, 57, 482-498.	1.5	69
44	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
45	A Kernel Compression Scheme for Fractional Differential Equations. SIAM Journal on Numerical Analysis, 2017, 55, 496-520.	1.1	68
46	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
47	A Stable Penalty Method for the Compressible Navier--Stokes Equations: II. One-Dimensional Domain Decomposition Schemes. SIAM Journal of Scientific Computing, 1997, 18, 658-685.	1.3	66
48	Dynamical properties of vortical structures on the beta-plane. Journal of Fluid Mechanics, 1994, 268, 103-131.	1.4	65
49	Filtering in Legendre spectral methods. Mathematics of Computation, 2008, 77, 1425-1452.	1.1	62
50	Efficient Computation of RCS From Scatterers of Uncertain Shapes. IEEE Transactions on Antennas and Propagation, 2007, 55, 1437-1448.	3.1	61
51	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
52	Uncertainty analysis for the steady-state flows in a dual throat nozzle. Journal of Computational Physics, 2005, 204, 378-398.	1.9	59
53	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
54	Structure Preserving Model Reduction of Parametric Hamiltonian Systems. SIAM Journal of Scientific Computing, 2017, 39, A2616-A2644.	1.3	55

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55	The reduced basis method for the electric field integral equation. Journal of Computational Physics, 2011, 230, 5532-5555.	1.9	54
56	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
57	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
58	A multi-domain spectral method for time-fractional differential equations. Journal of Computational Physics, 2015, 293, 157-172.	1.9	52
59	Multidomain pseudospectral computation of Maxwell's equations in 3-D general curvilinear coordinates. Applied Numerical Mathematics, 2000, 33, 281-289.	1.2	51
60	Spectral Methods Based on Prolate Spheroidal Wave Functions for Hyperbolic PDEs. SIAM Journal on Numerical Analysis, 2005, 43, 1912-1933.	1.1	51
61	Stable multi-domain spectral penalty methods for fractional partial differential equations. Journal of Computational Physics, 2014, 257, 241-258.	1.9	50
62	Nodal DG-FEM solution of high-order Boussinesq-type equations. Journal of Engineering Mathematics, 2007, 56, 351-370.	0.6	48
63	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
64	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
65	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
66	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
67	Integration Preconditioning of Pseudospectral Operators. I. Basic Linear Operators. SIAM Journal on Numerical Analysis, 1998, 35, 1571-1593.	1.1	43
68	DG-FEM solution for nonlinear wave-structure interaction using Boussinesq-type equations. Coastal Engineering, 2008, 55, 197-208.	1.7	43
69	Local discontinuous Galerkin methods for fractional ordinary differential equations. BIT Numerical Mathematics, 2015, 55, 967-985.	1.0	43
70	Time domain room acoustic simulations using the spectral element method. Journal of the Acoustical Society of America, 2019, 145, 3299-3310.	0.5	43
71	A level set discontinuous Galerkin method for free surface flows. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 3406-3429.	3.4	42
72	Greedy Nonintrusive Reduced Order Model for Fluid Dynamics. AIAA Journal, 2018, 56, 4927-4943.	1.5	42

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73	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
74	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
75	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
76	Discontinuous Galerkin method for computing gravitational waveforms from extreme mass ratio binaries. Classical and Quantum Gravity, 2009, 26, 165010.	1.5	36
77	Discontinuous Galerkin method for the spherically reduced Baumgarte-Shapiro-Shibata-Nakamura system with second-order operators. Physical Review D, 2010, 82, .	1.6	35
78	A parareal method for time-fractional differential equations. Journal of Computational Physics, 2015, 293, 173-183.	1.9	34
79	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
80	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
81	Detecting troubled-cells on two-dimensional unstructured grids using a neural network. Journal of Computational Physics, 2019, 397, 108845.	1.9	33
82	A reduced basis method for electromagnetic scattering by multiple particles in three dimensions. Journal of Computational Physics, 2012, 231, 7756-7779.	1.9	32
83	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
84	Dynamics of a nonlinear dipole vortex. Physics of Fluids, 1995, 7, 2220-2229.	1.6	31
85	Constraint-aware neural networks for Riemann problems. Journal of Computational Physics, 2020, 409, 109345.	1.9	31
86	Numerical simulations with a first-order BSSN formulation of Einsteinâ€™s field equations. Physical Review D, 2012, 85, .	1.6	29
87	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
88	On ANOVA expansions and strategies for choosing the anchor point. Applied Mathematics and Computation, 2010, 217, 3274-3285.	1.4	28
89	Fast screening of covariates in population models empowered by machine learning. Journal of Pharmacokinetics and Pharmacodynamics, 2021, 48, 597-609.	0.8	28
90	PadÃ©-Legendre Interpolants for Gibbs Reconstruction. Journal of Scientific Computing, 2006, 28, 337-359.	1.1	26

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91	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
92	Adaptive sparse grid algorithms with applications to electromagnetic scattering under uncertainty. Applied Numerical Mathematics, 2011, 61, 24-37.	1.2	25
93	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
94	Reduced basis methods for time-dependent problems. Acta Numerica, 2022, 31, 265-345.	6.3	25
95	Idempotent filtering in spectral and spectral element methods. Journal of Computational Physics, 2006, 220, 41-58.	1.9	24
96	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
97	High-Order Accurate Adaptive Kernel Compression Time-Stepping Schemes for Fractional Differential Equations. Journal of Scientific Computing, 2017, 72, 1169-1195.	1.1	22
98	Estimation of groundwater storage from seismic data using deep learning. Geophysical Prospecting, 2019, 67, 2115-2126.	1.0	22
99	Multi-domain Fourier-continuation/WENO hybrid solver for conservation laws. Journal of Computational Physics, 2011, 230, 8779-8796.	1.9	21
100	Certified Reduced Basis Method for the Electric Field Integral Equation. SIAM Journal of Scientific Computing, 2012, 34, A1777-A1799.	1.3	21
101	Adaptive WENO Methods Based on Radial Basis Function Reconstruction. Journal of Scientific Computing, 2017, 72, 986-1020.	1.1	21
102	Dynamics of nonstationary dipole vortices. Physics of Fluids A, Fluid Dynamics, 1993, 5, 622-629.	1.6	20
103	Non-Linear PML Equations for Time Dependent Electromagnetics in Three Dimensions. Journal of Scientific Computing, 2006, 28, 125-137.	1.1	18
104	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
105	Ground states of dispersion-managed nonlinear SchrÃ¶dinger equation. Physical Review E, 2000, 62, 7358-7364.	0.8	17
106	High-Order Multiscale Finite Element Method for Elliptic Problems. Multiscale Modeling and Simulation, 2014, 12, 650-666.	0.6	17
107	Population pharmacokinetic model selection assisted by machine learning. Journal of Pharmacokinetics and Pharmacodynamics, 2022, 49, 257-270.	0.8	17
108	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

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109	Persistent junk solutions in time-domain modeling of extreme mass ratio binaries. Physical Review D, 2010, 81, .	1.6	16
110	Entropy stable essentially nonoscillatory methods based on RBF reconstruction. ESAIM: Mathematical Modelling and Numerical Analysis, 2019, 53, 925-958.	0.8	16
111	Structure-Preserving Model-Reduction of Dissipative Hamiltonian Systems. Journal of Scientific Computing, 2019, 81, 3-21.	1.1	16
112	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
113	Generation of tripolar vortical structures on the beta plane. Physics of Fluids A, Fluid Dynamics, 1993, 5, 1674-1678.	1.6	15
114	Predicting transport by Lagrangian coherent structures with a high-order method. Theoretical and Computational Fluid Dynamics, 2006, 21, 39-58.	0.9	15
115	Efficient Solution of Ordinary Differential Equations with High-Dimensional Parametrized Uncertainty. Communications in Computational Physics, 2011, 10, 253-278.	0.7	15
116	Numerical studies of localized wavefields governed by the Raman-extended derivative nonlinear SchrÃ¶dinger equation. Journal of Physics A, 1997, 30, 8207-8224.	1.6	14
117	Reduced Basis Multiscale Finite Element Methods for Elliptic Problems. Multiscale Modeling and Simulation, 2015, 13, 316-337.	0.6	14
118	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
119	On the Use of Reduced Basis Methods to Accelerate and Stabilize the Parareal Method. , 2014, , 187-214.		14
120	Rank-adaptive structure-preserving model order reduction of Hamiltonian systems. ESAIM: Mathematical Modelling and Numerical Analysis, 2022, 56, 617-650.	0.8	14
121	A Wavelet Optimized Adaptive Multi-domain Method. Journal of Computational Physics, 1998, 145, 280-296.	1.9	13
122	Fourier spectral methods. , 0, , 43-65.		13
123	Multi-dimensional hybrid Fourier continuationâ€“WENO solvers for conservation laws. Journal of Computational Physics, 2013, 253, 209-225.	1.9	13
124	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
125	Structure-preserving reduced basis methods for Poisson systems. Mathematics of Computation, 2021, 90, 1701-1740.	1.1	12
126	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

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127	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
128	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
129	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
130	Model order reduction for large-scale structures with local nonlinearities. Computer Methods in Applied Mechanics and Engineering, 2019, 353, 491-515.	3.4	11
131	A nodal discontinuous Galerkin finite element method for the poroelastic wave equation. Computational Geosciences, 2019, 23, 595-615.	1.2	11
132	Controlling oscillations in spectral methods by local artificial viscosity governed by neural networks. Journal of Computational Physics, 2021, 431, 110144.	1.9	11
133	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
134	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
135	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
136	IMEX Evolution of Scalar Fields on Curved Backgrounds. Communications in Computational Physics, 2009, 6, 1063-1094.	0.7	10
137	Vortex dynamics in plasmas and fluids. Plasma Physics and Controlled Fusion, 1994, 36, B193-B202.	0.9	9
138	Adaptive High-Order Finite-Difference Method for Nonlinear Wave Problems. Journal of Scientific Computing, 2001, 16, 47-67.	1.1	9
139	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
140	The Eulerian-Lagrangian transformation in two-dimensional random flows. Journal of Atmospheric and Solar-Terrestrial Physics, 1995, 57, 215-223.	0.9	8
141	Dipolar vortices in two-dimensional flows. Mathematics and Computers in Simulation, 1996, 40, 207-221.	2.4	8
142	Computation of connection coefficients and measure modifications for orthogonal polynomials. BIT Numerical Mathematics, 2012, 52, 457-483.	1.0	8
143	Simulations of the Weibel Instability with a High-Order Discontinous Galerkin Particle-In-Cell Solver. , 2006, , .		7
144	Modeling Magma Dynamics with a Mixed Fourier Collocation â€” Discontinuous Galerkin Method. Communications in Computational Physics, 2011, 10, 433-452.	0.7	7

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145	Multilevel and local time-stepping discontinuous Galerkin methods for magma dynamics. Computational Geosciences, 2015, 19, 965-978.	1.2	7
146	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
147	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
148	High-Order Discontinuous Galerkin Methods by GPU Metaprogramming. Lecture Notes in Earth System Sciences, 2013, , 353-374.	0.5	6
149	High-Order Accurate Local Schemes for Fractional Differential Equations. Journal of Scientific Computing, 2017, 70, 355-385.	1.1	6
150	Efficient Preconditioning of hp-FEM Matrices by Hierarchical Low-Rank Approximations. Journal of Scientific Computing, 2017, 72, 49-80.	1.1	6
151	Two-Dimensional RBF-ENO Method on Unstructured Grids. Journal of Scientific Computing, 2020, 82, 76.	1.1	6
152	A data-driven shock capturing approach for discontinuous Galekin methods. Computers and Fluids, 2022, 245, 105592.	1.3	6
153	A multi-domain Chebyshev collocation method for predicting ultrasonic field parameters in complex material geometries. Ultrasonics, 2002, 40, 177-180.	2.1	5
154	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
155	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
156	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
157	Multiscale modelling of sound propagation through the lung parenchyma. ESAIM: Mathematical Modelling and Numerical Analysis, 2014, 48, 27-52.	0.8	5
158	Modeling 3D Magma Dynamics Using a Discontinuous Galerkin Method. Communications in Computational Physics, 2015, 18, 230-246.	0.7	5
159	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
160	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
161	Conservative Model Order Reduction for Fluid Flow. Lecture Notes in Computational Science and Engineering, 2020, , 67-99.	0.1	5
162	A fast and parallel stroud-based stochastic collocation method for statistical EMI/EMC analysis. , 2008, , .		4

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163	Solving Wave Equations on Unstructured Geometries. , 2012, , 225-242.		4
164	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
165	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
166	Artificial neural network for bifurcating phenomena modelled by nonlinear parametrized PDEs. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000350.	0.2	4
167	A pseudospectral collocation time-domain method for diffractive optics. Applied Numerical Mathematics, 2000, 33, 199-206.	1.2	3
168	Computational modeling of uncertainty in time-domain electromagnetics. , 0, , .		3
169	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
170	A Homotopy Method with Adaptive Basis Selection for Computing Multiple Solutions of Differential Equations. Journal of Scientific Computing, 2020, 82, 1.	1.1	3
171	Modeling synchronization in globally coupled oscillatory systems using model order reduction. Chaos, 2021, 31, 053127.	1.0	3
172	High-Order Discontinuous Galerkin Methods for Computational Electromagnetics and Uncertainty Quantification. Mathematics in Industry, 2010, , 403-412.	0.1	3
173	Spectral methods for hyperbolic problems. , 2001, , 83-131.		3
174	Spectral interpolation in non-orthogonal domains: algorithms and applications. Journal of Engineering Mathematics, 2007, 56, 201-202.	0.6	2
175	Fault Tolerance in the Parareal Method. , 2016, , .		2
176	A comparative study of earthquake source models in high-order accurate tsunami simulations. Ocean Modelling, 2019, 141, 101429.	1.0	2
177	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
178	Rare event simulation for large-scale structures with local nonlinearities. Computer Methods in Applied Mechanics and Engineering, 2020, 366, 113051.	3.4	2
179	Predictive Monitoring of Large-Scale Engineering Assets Using Machine Learning Techniques and Reduced-Order Modeling. Structural Integrity, 2022, , 185-205.	0.8	2
180	A Hierarchical Preconditioner for Wave Problems in Quasilinear Complexity. SIAM Journal of Scientific Computing, 2022, 44, A198-A229.	1.3	2

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181	Reduced Navierâ€“Stokes equations near a flow boundary. Physica D: Nonlinear Phenomena, 2006, 217, 161-185.	1.3	1
182	Projective multiscale time-integration for electrostatic particle-in-cell methods. Computer Physics Communications, 2019, 236, 34-50.	3.0	1
183	Hybrid high-resolution RBF-ENO method. Journal of Computational Physics: X, 2021, 12, 100089.	1.1	1
184	Certified Error Control. SpringerBriefs in Mathematics, 2016, , 45-66.	0.2	1
185	High-order localized time integration for grid-induced stiffness. , 2003, , 1883-1886.		1
186	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
187	RBF Based CWENO Method. Lecture Notes in Computational Science and Engineering, 2020, , 191-201.	0.1	1
188	Discovery of Slow Variables in a Class Of Multiscale Stochastic Systems Via Neural Networks. Journal of Nonlinear Science, 2022, 32, .	1.0	1
189	Coherent structures in plasmas and fluids. AIP Conference Proceedings, 1995, , .	0.3	0
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