John Boyd

List of Publications by Year
in descending order

258 papers	6,363 citations	76031 42 h-index	124990 64 g-index
262 all docs	262 docs citations	262 times ranked	3383 citing authors

#	Article	IF	Citations
1	Spectral methods using rational basis functions on an infinite interval. Journal of Computational Physics, 1987, 69, 112-142.	1.9	195
2	Orthogonal rational functions on a semi-infinite interval. Journal of Computational Physics, 1987, 70, 63-88.	1.9	193
3	The Devil's Invention: Asymptotic, Superasymptotic and Hyperasymptotic Series. , 1999, 56, 1-98.		188
4	The Noninteraction of Waves with the Zonally Averaged Flow on a Spherical Earth and the Interrelationships on Eddy Fluxes of Energy, Heat and Momentum. Journals of the Atmospheric Sciences, 1976, 33, 2285-2291.	0.6	175
5	The optimization of convergence for chebyshev polynomial methods in an unbounded domain. Journal of Computational Physics, 1982, 45, 43-79.	1.9	141
6	Equatorial Solitary Waves. Part I: Rossby Solitons. Journal of Physical Oceanography, 1980, 10, 1699-1717.	0.7	137
7	Global approximations to the principal real-valued branch of the Lambert W-function. Applied Mathematics Letters, 1998, 11, 27-31.	1.5	131
8	Padeì•approximant algorithm for solving nonlinear ordinary differential equation boundary value problems on an unbounded domain. Computers in Physics, 1997, 11, 299.	0.6	126
9	Weakly non-local solitons for capillary-gravity waves: Fifth-degree Korteweg-de Vries equation. Physica D: Nonlinear Phenomena, 1991, 48, 129-146.	1.3	125
10	A Comparison of Numerical Algorithms for Fourier Extension of the First, Second, and Third Kinds. Journal of Computational Physics, 2002, 178, 118-160.	1.9	116
11	A staggered spectral element model with application to the oceanic shallow water equations. International Journal for Numerical Methods in Fluids, 1995, 20, 393-414.	0.9	115
12	Weakly Nonlocal Solitary Waves and Beyond-All-Orders Asymptotics. , 1998, , .		100
13	Peakons and coshoidal waves: Traveling wave solutions of the Camassa-Holm equation. Applied Mathematics and Computation, 1997, 81, 173-187.	1.4	87
14	Pseudospectral methods on a semi-infinite interval with application to the hydrogen atom: a comparison of the mapped Fourier-sine method with Laguerre series and rational Chebyshev expansions. Journal of Computational Physics, 2003, 188, 56-74.	1.9	85
15	Prolate spheroidal wavefunctions as an alternative to Chebyshev and Legendre polynomials for spectral element and pseudospectral algorithms. Journal of Computational Physics, 2004, 199, 688-716.	1.9	83
16	Asymptotic coefficients of hermite function series. Journal of Computational Physics, 1984, 54, 382-410.	1.9	79
17	An analytical and numerical study of the two-dimensional Bratu equation. Journal of Scientific Computing, 1986, 1, 183-206.	1.1	76
18	Computing core/periphery structures and permutation tests for social relations data. Social Networks, 2006, 28, 165-178.	1.3	74

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19	Two Comments on Filtering (Artificial Viscosity) for Chebyshev and Legendre Spectral and Spectral Element Methods: Preserving Boundary Conditions and Interpretation of the Filter as a Diffusion. Journal of Computational Physics, 1998, 143, 283-288.	1.9	71
20	Computing continuous core/periphery structures for social relations data with MINRES/SVD. Social Networks, 2010, 32, 125-137.	1.3	66
21	The Effects of Latitudinal Shear on Equatorial Waves. Past I: Theory and Methods. Journals of the Atmospheric Sciences, 1978, 35, 2236-2258.	0.6	65
22	A fast algorithm for Chebyshev, Fourier, and sinc interpolation onto an irregular grid. Journal of Computational Physics, 1992, 103, 243-257.	1.9	64
23	A numerical calculation of a weakly non-local solitary wave: the Ï•4breather. Nonlinearity, 1990, 3, 177-195.	0.6	63
24	The Blasius Function in the Complex Plane. Experimental Mathematics, 1999, 8, 381-394.	0.5	63
25	The Nonlinear Equatorial Kelvin Wave. Journal of Physical Oceanography, 1980, 10, 1-11.	0.7	59
26	Comparing seven spectral methods for interpolation and for solving the Poisson equation in a disk: Zernike polynomials, Loganâ€"Shepp ridge polynomials, Chebyshevâ€"Fourier Series, cylindrical Robert functions, Besselâ€"Fourier expansions, square-to-disk conformal mapping and radial basis functions. Journal of Computational Physics, 2011, 230, 1408-1438.	1.9	57
27	Spectral method solution of the Stokes equations on nonstaggered grids. Journal of Computational Physics, 1991, 94, 30-58.	1.9	55
28	Chebyshev polynomial expansions for simultaneous approximation of two branches of a function with application to the one-dimensional Bratu equation. Applied Mathematics and Computation, 2003, 143, 189-200.	1.4	55
29	Trouble with Gegenbauer reconstruction for defeating Gibbsâ€™ phenomenon: Runge phenomenon in the diagonal limit of Gegenbauer polynomial approximations. Journal of Computational Physics, 2005, 204, 253-264.	1.9	55
30	Exponentially convergent Fourier-Chebshev quadrature schemes on bounded and infinite intervals. Journal of Scientific Computing, 1987, 2, 99-109.	1.1	52
31	Divergence (Runge Phenomenon) for least-squares polynomial approximation on an equispaced grid and Mockâ€"Chebyshev subset interpolation. Applied Mathematics and Computation, 2009, 210, 158-168.	1.4	51
32	Computing Zeros on a Real Interval through Chebyshev Expansion and Polynomial Rootfinding. SIAM Journal on Numerical Analysis, 2002, 40, 1666-1682.	1.1	50
33	New Directions in Solitons and Nonlinear Periodic Waves: Polycnoidal Waves, Imbricated Solitons, Weakly Nonlocal Solitary Waves, and Numerical Boundary Value Algorithms. Advances in Applied Mechanics, 1989, 27, 1-82.	1.4	49
34	The Blasius Function: Computations Before Computers, the Value of Tricks, Undergraduate Projects, and Open Research Problems. SIAM Review, 2008, 50, 791-804.	4.2	49
35	Equatorial Solitary Waves. Part 2: Envelope Solitons. Journal of Physical Oceanography, 1983, 13, 428-449.	0.7	48
36	Solitons from sine waves: Analytical and numerical methods for non-integrable solitary and cnoidal waves. Physica D: Nonlinear Phenomena, 1986, 21, 227-246.	1.3	47

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37	The Effects of Latitudinal Shear on Equatorial Waves. Part II: Applications to the Atmosphere. Journals of the Atmospheric Sciences, 1978, 35, 2259-2267.	0.6	46
38	Complex coordinate methods for hydrodynamic instabilities and Sturm-Liouville eigenproblems with an interior singularity. Journal of Computational Physics, 1985, 57, 454-471.	1.9	46
39	The Continuous Spectrum of Linear Couette Flow with the Beta Effect. Journals of the Atmospheric Sciences, 1983, 40, 2304-2308.	0.6	45
40	Numerical experiments on the condition number of the interpolation matrices for radial basis functions. Applied Numerical Mathematics, 2011, 61, 443-459.	1.2	45
41	Chebyshev pseudospectral method of viscous flows with corner singularities. Journal of Scientific Computing, 1989, 4, 1-24.	1.1	44
42	Ostrovsky and Hunter's generic wave equation for weakly dispersive waves: matched asymptotic and pseudospectral study of the paraboloidal travelling waves (corner and near-corner waves). European Journal of Applied Mathematics, 2005, 16, 65-81.	1.4	43
43	One-point pseudospectral collocation for the one-dimensional Bratu equation. Applied Mathematics and Computation, 2011, 217, 5553-5565.	1.4	43
44	Theta functions, Gaussian series, and spatially periodic solutions of the Kortewegâ€"de Vries equation. Journal of Mathematical Physics, 1982, 23, 375-387.	0.5	42
45	The Energy Spectrum of Fronts: Time Evolution of Shocks in Burgersâ€š Equation. Journals of the Atmospheric Sciences, 1992, 49, 128-139.	0.6	42
46	Algorithm 840: computation of grid points, quadrature weights and derivatives for spectral element methods using prolate spheroidal wave functions---prolate elements. ACM Transactions on Mathematical Software, 2005, 31, 149-165.	1.6	42
47	The rate of convergence of Hermite function series. Mathematics of Computation, 1980, 35, 1309-1316.	1.1	41
48	Low wavenumber instability on the equatorial betaâ€plane. Geophysical Research Letters, 1982, 9, 769-772.	1.5	41
49	Modeling nonlinear resonance: A modification to the stokes' perturbation expansion. Wave Motion, 1988, 10, 83-98.	1.0	41
50	Equatorial Solitary Waves. Part 3: Westward-Traveling Modons. Journal of Physical Oceanography, 1985, 15, 46-54.	0.7	40
51	The Choice of Spectral Functions on a Sphere for Boundary and Eigenvalue Problems: A Comparison of Chebyshev, Fourier and Associated Legendre Expansions. Monthly Weather Review, 1978, 106, 1184-1191.	0.5	38
52	Cnoidal Waves as Exact Sums of Repeated Solitary Waves: New Series for Elliptic Functions. SIAM Journal on Applied Mathematics, 1984, 44, 952-955.	0.8	37
53	New approximations to the principal real-valued branch of the Lambert W-function. Advances in Computational Mathematics, 2017, 43, 1403-1436.	0.8	36
54	Sturmâ€"Liouville eigenproblems with an interior pole. Journal of Mathematical Physics, 1981, 22, 1575-1590.	0.5	35

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55	Compatibility conditions for time-dependent partial differential equations and the rate of convergence of Chebyshev and Fourier spectral methods. Computer Methods in Applied Mechanics and Engineering, 1999, 175, 281-309.	3.4	35
56	Fourier embedded domain methods: extending a function defined on an irregular region to a rectangle so that the extension is spatially periodic and Câˆž. Applied Mathematics and Computation, 2005, 161, 591-597.	1.4	35
57	Multipole expansions and pseudospectral cardinal functions: A new generalization of the fast fourier transform. Journal of Computational Physics, 1992, 103, 184-186.	1.9	34
58	Approximation of an analytic function on a finite real interval by a bandlimited function and conjectures on properties of prolate spheroidal functions. Applied and Computational Harmonic Analysis, 2003, 15, 168-176.	1.1	34
59	On computation of Hough functions. Geoscientific Model Development, 2016, 9, 1477-1488.	1.3	34
60	The double cnoidal wave of the Kortewegâ€"de Vries equation: An overview. Journal of Mathematical Physics, 1984, 25, 3390-3401.	0.5	33
61	Stability and long time evolution of the periodic solutions to the two coupled nonlinear SchrÃ¶dinger equations. Chaos, Solitons and Fractals, 2001, 12, 721-734.	2.5	33
62	Computing the zeros, maxima and inflection points of Chebyshev, Legendre and Fourier series: solving transcendental equations by spectral interpolation and polynomial rootfinding. Journal of Engineering Mathematics, 2007, 56, 203-219.	0.6	33
63	Chebyshev Spectral Methods and the Lane-Emden Problem. Numerical Mathematics, 2011, 4, 142-157.	0.6	33
64	Six strategies for defeating the Runge Phenomenon in Gaussian radial basis functions on a finite interval. Computers and Mathematics With Applications, 2010, 60, 3108-3122.	1.4	31
65	Exponentially-convergent strategies for defeating the Runge Phenomenon for the approximation of non-periodic functions, part two: Multi-interval polynomial schemes and multidomain Chebyshev interpolation. Applied Numerical Mathematics, 2011, 61, 460-472.	1.2	31
66	A Chebyshev polynomial method for computing analytic solutions to eigenvalue problems with application to the anharmonic oscillator. Journal of Mathematical Physics, 1978, 19, 1445-1456.	0.5	30
67	Envelope Solitary Waves and Periodic Waves in the AB Equations. Studies in Applied Mathematics, 2002, 109, 67-87.	1.1	30
68	Efficient synthesis of pentakis- and tris(pyridine) ligands. Tetrahedron Letters, 2012, 53, 54-55.	0.7	30
69	Finding the Zeros of a Univariate Equation: Proxy Rootfinders, Chebyshev Interpolation, and the Companion Matrix. SIAM Review, 2013, 55, 375-396.	4.2	30
70	The Relationships Between Chebyshev, Legendre and Jacobi Polynomials: The Generic Superiority of Chebyshev Polynomials and Three Important Exceptions. Journal of Scientific Computing, 2014, 59, 1-27.	1.1	30
71	Coupled-mode envelope solitary waves in a pair of cubic SchrÃ¶dinger equations with cross modulation: Analytical solution and collisions with application to Rossby waves. Chaos, Solitons and Fractals, 2000, 11, 1113-1129.	2.5	29
72	Hyperasymptotics and the Linear Boundary Layer Problem: Why Asymptotic Series Diverge. SIAM Review, 2005, 47, 553-575.	4.2	29

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73	Defeating the Runge phenomenon for equispaced polynomial interpolation via Tikhonov regularization. Applied Mathematics Letters, 1992, 5, 57-59.	1.5	28
74	The Rate of Convergence of Fourier Coefficients for Entire Functions of Infinite Order with Application to the Weideman-Cloot Sinh-Mapping for Pseudospectral Computations on an Infinite Interval. Journal of Computational Physics, 1994, 110, 360-372.	1.9	28
75	A numerical comparison of seven grids for polynomial interpolation on the interval. Computers and Mathematics With Applications, 1999, 38, 35-50.	1.4	28
76	Rational Chebyshev series for the Thomasâ€“Fermi function: Endpoint singularities and spectral methods. Journal of Computational and Applied Mathematics, 2013, 244, 90-101.	1.1	28
77	Spectral Modeling of Nonlinear Dispersive Waves. Journal of Hydraulic Engineering, 1998, 124, 2-12.	0.7	27
78	Stability of fluid in a rectangular enclosure by spectral method. International Journal of Heat and Mass Transfer, 1989, 32, 513-520.	2.5	26
79	Weakly nonlinear wavepackets in the Kortewegâ€“de Vries equation: the KdV/NLS connection. Mathematics and Computers in Simulation, 2001, 55, 317-328.	2.4	25
80	Five regimes of the quasi-cnoidal, steadily translating waves of the rotation-modified Korteweg-de Vries (â€œOstrovskyâ€) equation. Wave Motion, 2002, 35, 141-155.	1.0	25
81	Large-degree asymptotics and exponential asymptotics for Fourier, Chebyshev and Hermite coefficients and Fourier transforms. Journal of Engineering Mathematics, 2009, 63, 355-399.	0.6	25
82	Perturbation series for the double cnoidal wave of the Kortewegâ€“de Vries equation. Journal of Mathematical Physics, 1984, 25, 3402-3414.	0.5	24
83	Chebyshev domain truncation is inferior to fourier domain truncation for solving problems on an infinite interval. Journal of Scientific Computing, 1988, 3, 109-120.	1.1	24
84	The asymptotic Chebyshev coefficients for functions with logarithmic endpoint singularities: mappings and singular basis functions. Applied Mathematics and Computation, 1989, 29, 49-67.	1.4	24
85	Numerical study of elliptical modons using a spectral method. Journal of Fluid Mechanics, 1990, 221, 597-611.	1.4	24
86	Sum-accelerated pseudospectral methods: the Euler-accelerated sinc algorithm. Applied Numerical Mathematics, 1991, 7, 287-296.	1.2	24
87	Analytical and numerical studies of weakly nonlocal solitary waves of the rotation-modified Kortewegâ€“de Vries equation. Physica D: Nonlinear Phenomena, 2001, 155, 201-222.	1.3	24
88	Computing real roots of a polynomial in Chebyshev series form through subdivision. Applied Numerical Mathematics, 2006, 56, 1077-1091.	1.2	24
89	A Control-Volume Model of the Compressible Euler Equations with a Vertical Lagrangian Coordinate. Monthly Weather Review, 2013, 141, 2526-2544.	0.5	24
90	Davydov soliton collisions. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 240, 282-286.	0.9	23

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91	Limited-Area Fourier Spectral Models and Data Analysis Schemes: Windows, Fourier Extension, Davies Relaxation, and All That. Monthly Weather Review, 2005, 133, 2030-2042.	0.5	23
92	Error saturation in Gaussian radial basis functions on a finite interval. Journal of Computational and Applied Mathematics, 2010, 234, 1435-1441.	1.1	23
93	Summability methods for hermite functions. Dynamics of Atmospheres and Oceans, 1986, 10, 51-62.	0.7	22
94	The orthogonal rational functions of Higgins and Christov and algebraically mapped Chebyshev polynomials. Journal of Approximation Theory, 1990, 61, 98-105.	0.5	22
95	Polynomial series versus sinc expansions for functions with corner or endpoint singularities. Journal of Computational Physics, 1986, 64, 266-270.	1.9	21
96	Asymptotic Fourier Coefficients for a Câˆž Bell (Smoothed-â€œTop-Hatâ€) & the Fourier Extension Problem. Journal of Scientific Computing, 2006, 29, 1-24.	1.1	21
97	Equatorial solitary waves Part 4. Kelvin solitons in a shear flow. Dynamics of Atmospheres and Oceans, 1984, 8, 173-184.	0.7	20
98	Sum-accelerated pseudospectral methods: Finite differences and sech-weighted differences. Computer Methods in Applied Mechanics and Engineering, 1994, 116, 1-11.	3.4	20
99	Solitons in a Continuously Stratified Equatorial Ocean. Journal of Physical Oceanography, 1987, 17, 1016-1031.	0.7	19
100	Chebyshev and Legendre Spectral Methods in Algebraic Manipulation Languages. Journal of Symbolic Computation, 1993, 16, 377-399.	0.5	19
101	The Slow Manifold of a Five-Mode Model. Journals of the Atmospheric Sciences, 1994, 51, 1057-1064.	0.6	19
102	A Chebyshev Polynomial Interval-Searching Method ("Lanczos Economization") for Solving a Nonlinear Equation with Application to the Nonlinear Eigenvalue Problem. Journal of Computational Physics, 1995, 118, 1-8.	1.9	19
103	Why Newtonâ€™s method is hard for travelling waves: Small denominators, KAM theory, Arnoldâ€™s linear Fourier problem, non-uniqueness, constraints and erratic failure. Mathematics and Computers in Simulation, 2007, 74, 72-81.	2.4	19
104	An analytic approximation to the cardinal functions of Gaussian radial basis functions on an infinite lattice. Applied Mathematics and Computation, 2009, 215, 2215-2223.	1.4	19
105	Accurate calculation of the solutions to the Thomasâ€“Fermi equations. Applied Mathematics and Computation, 2014, 232, 929-943.	1.4	19
106	Traps and Snares in Eigenvalue Calculations with Application to Pseudospectral Computations of Ocean Tides in a Basin Bounded by Meridians. Journal of Computational Physics, 1996, 126, 11-20.	1.9	18
107	Dynamics of the Flierl-Petviashvili monopoles in a barotropic model with topographic forcing. Wave Motion, 1997, 26, 239-251.	1.0	18
108	Deleted Residuals, the QR-Factored Newton Iteration, and Other Methods for Formally Overdetermined Determinate Discretizations of Nonlinear Eigenproblems for Solitary, Cnoidal, and Shock Waves. Journal of Computational Physics, 2002, 179, 216-237.	1.9	18

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109	Numerical experiments on the accuracy of the Chebyshevâ€“Frobenius companion matrix method for finding the zeros of a truncated series of Chebyshev polynomials. Journal of Computational and Applied Mathematics, 2007, 205, 281-295.	1.1	18
110	The Influence of Meridional Shear on Planetary Waves. Part 2: Critical Latitudes. Journals of the Atmospheric Sciences, 1982, 39, 770-790.	0.6	17
111	The special modular transformation for polycnoidal waves of the Kortewegâ€“de Vries equation. Journal of Mathematical Physics, 1984, 25, 3415-3423.	0.5	17
112	High order models for the nonlinear shallow water wave equations on the equatorial beta-plane with application to Kelvin wave frontogenesis. Dynamics of Atmospheres and Oceans, 1998, 28, 69-91.	0.7	17
113	Computing real roots of a polynomial in Chebyshev series form through subdivision with linear testing and cubic solves. Applied Mathematics and Computation, 2006, 174, 1642-1658.	1.4	17
114	Comparison of three spectral methods for the Benjaminâ€“Ono equation: Fourier pseudospectral, rational Christov functions and Gaussian radial basis functions. Wave Motion, 2011, 48, 702-706.	1.0	17
115	A Longâ€Lived Sharp Disruption on the Lower Clouds of Venus. Geophysical Research Letters, 2020, 47, e2020GL087221.	1.5	17
116	Hyperviscous shock layers and diffusion zones: Monotonicity, spectral viscosity, and pseudospectral methods for very high order differential equations. Journal of Scientific Computing, 1994, 9, 81-106.	1.1	16
117	A lag-averaged generalization of Euler's method for accelerating series. Applied Mathematics and Computation, 1995, 72, 143-166.	1.4	16
118	A proof that the discrete singular convolution (DSC)/Lagrange-distributed approximating function (LDAF) method is inferior to high order finite differences. Journal of Computational Physics, 2006, 214, 538-549.	1.9	16
119	Acceleration of algebraically-converging Fourier series when the coefficients have series in powers of. Journal of Computational Physics, 2009, 228, 1404-1411.	1.9	16
120	Long Wave/Short Wave Resonance in Equatorial Waves. Journal of Physical Oceanography, 1983, 13, 450-458.	0.7	15
121	Monopolar and dipolar vortex solitons in two space dimensions. Wave Motion, 1991, 13, 223-241.	1.0	15
122	Equatorial Solitary Waves. Part V: Initial Value Experiments, Coexisting Branches, and Tilted-Pair Instability. Journal of Physical Oceanography, 2002, 32, 2589-2602.	0.7	15
123	A Legendre-pseudospectral method for computing travelling waves with corners (slope) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 1 Computational Physics, 2003, 189, 98-110.	1.9	15
124	Microbreaking and polycnoidal waves in the Ostrovskyâ€“Hunter equation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 338, 36-43.	0.9	15
125	The arctan/tan and Kepler-Burgers mappings for periodic solutions with a shock, front, or internal boundary layer. Journal of Computational Physics, 1992, 98, 181-193.	1.9	14
126	Rootfinding for a transcendental equation without a first guess: Polynomialization of Kepler's equation through Chebyshev polynomial expansion of the sine. Applied Numerical Mathematics, 2007, 57, 12-18.	1.2	14

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127	Exponentially accurate Runge-free approximation of non-periodic functions from samples on an evenly spaced grid. Applied Mathematics Letters, 2007, 20, 971-975.	1.5	14
128	Chebyshev expansion on intervals with branch points with application to the root of Keplerâ€™s equation: A Chebyshevâ€“Hermiteâ€“PadÃ© method. Journal of Computational and Applied Mathematics, 2009, 223, 693-702.	1.1	14
129	Spectral and Pseudospectral Methods for Eigenvalue and Nonseparable Boundary Value Problems. Monthly Weather Review, 1978, 106, 1192-1203.	0.5	13
130	Double cnoidal waves of the Korteweg-de Vries equation: A boundary value approach. Physica D: Nonlinear Phenomena, 1991, 50, 117-134.	1.3	13
131	A Hyperasymptotic Perturbative Method for Computing the Radiation Coefficient for Weakly Nonlocal Solitary Waves. Journal of Computational Physics, 1995, 120, 15-32.	1.9	13
132	Eight definitions of the slow manifold: seiches, pseudoseiches and exponential smallness. Dynamics of Atmospheres and Oceans, 1995, 22, 49-75.	0.7	13
133	Uniform Asymptotics for the Linear Kelvin Wave in Spherical Geometry. Journals of the Atmospheric Sciences, 2008, 65, 655-660.	0.6	13
134	Rational chebyshev spectral methods for unbounded solutions on an infinite interval using polynomial-growth special basis functions. Computers and Mathematics With Applications, 2001, 41, 1293-1315.	1.4	12
135	Large mode number eigenvalues of the prolate spheroidal differential equation. Applied Mathematics and Computation, 2003, 145, 881-886.	1.4	12
136	A comparison of numerical and analytical methods for the reduced wave equation with multiple spatial scales. Applied Numerical Mathematics, 1991, 7, 453-479.	1.2	11
137	Construction of Lighthill's unitary functions: The imbricate series of unity. Applied Mathematics and Computation, 1997, 86, 1-10.	1.4	11
138	Hermite function interpolation on a finite uniform grid: Defeating the Runge phenomenon and replacing radial basis functions. Applied Mathematics Letters, 2013, 26, 995-997.	1.5	11
139	High order analysis of the limit cycle of the van der Pol oscillator. Journal of Mathematical Physics, 2018, 59, .	0.5	11
140	Second Harmonic Resonance for Equatorial Waves. Journal of Physical Oceanography, 1983, 13, 459-466.	0.7	10
141	Barotropic Equatorial Waves: The Nonuniformity of the Equatorial Beta-Plane. Journals of the Atmospheric Sciences, 1985, 42, 1965-1967.	0.6	10
142	Beyond-all-orders instability in the equatorial Kelvin wave. Dynamics of Atmospheres and Oceans, 2001, 33, 191-200.	0.7	10
143	Computing the zeros of a Fourier series or a Chebyshev series or general orthogonal polynomial series with parity symmetries. Computers and Mathematics With Applications, 2007, 54, 336-349.	1.4	10
144	The uselessness of the Fast Gauss Transform for summing Gaussian radial basis function series. Journal of Computational Physics, 2010, 229, 1311-1326.	1.9	10

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145	Asymptotic coefficients for Gaussian radial basis function interpolants. Applied Mathematics and Computation, 2010, 216, 2394-2407.	1.4	10
146	Sensitivity of RBF interpolation on an otherwise uniform grid with a point omitted or slightly shifted. Applied Numerical Mathematics, 2010, 60, 659-672.	1.2	10
147	The near-equivalence of five species of spectrally-accurate radial basis functions (RBFs): Asymptotic approximations to the RBF cardinal functions on a uniform, unbounded grid. Journal of Computational Physics, 2011, 230, 1304-1318.	1.9	10
148	Quartic Gaussian and Inverse-Quartic Gaussian radial basis functions: The importance of a nonnegative Fourier transform. Computers and Mathematics With Applications, 2013, 65, 75-88.	1.4	10
149	Symmetrizing grids, radial basis functions, and Chebyshev and Zernike polynomials for the <mml:math altimg="si1.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/ja	1.9	10
150	The Influence of Meridional Shear on Planetary Waves. Part 1: Nonsingular Wind Profiles. Journals of the Atmospheric Sciences, 1982, 39, 756-769.	0.6	9
151	Weakly nonlocal envelope solitary waves: numerical calculations for the Klein-Gordon (Ï†4) equation. Wave Motion, 1995, 21, 311-330.	1.0	9
152	A Sturmâ€“Liouville Eigenproblem of the Fourth Kind: A Critical Latitude with Equatorial Trapping. Studies in Applied Mathematics, 1998, 101, 433-455.	1.1	9
153	Are social equivalences ever regular?. Social Networks, 2001, 23, 87-123.	1.3	9
154	Near-corner waves of the Camassaâ€“Holm equation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 336, 342-348.	0.9	9
155	Fourier pseudospectral method with Kepler mapping for travelling waves with discontinuous slope: Application to corner waves of the Ostrovskyâ€“Hunter equation and equatorial Kelvin waves in the four-mode approximation. Applied Mathematics and Computation, 2006, 177, 289-299.	1.4	9
156	Numerical, perturbative and Chebyshev inversion of the incomplete elliptic integral of the second kind. Applied Mathematics and Computation, 2012, 218, 7005-7013.	1.4	9
157	Bandwidth truncation for Chebyshev polynomial and ultraspherical/Chebyshev Galerkin discretizations of differential equations: Restrictions and two improvements. Journal of Computational and Applied Mathematics, 2016, 302, 340-355.	1.1	9
158	The envelope of the error for trigonometric and Chebyshev interpolation. Journal of Scientific Computing, 1990, 5, 311-363.	1.1	8
159	A Chebyshev/radiation function pseudospectral method for wave scattering. Computers in Physics, 1990, 4, 83.	0.6	8
160	Nonlinear wave Packets of Equatorial Kelvin Waves. Geophysical and Astrophysical Fluid Dynamics, 2002, 96, 357-379.	0.4	8
161	Finding and testing regular equivalence. Social Networks, 2002, 24, 315-331.	1.3	8
162	Evaluating of Dawsonâ€™s Integral by solving its differential equation using orthogonal rational Chebyshev functions. Applied Mathematics and Computation, 2008, 204, 914-919.	1.4	8

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163	Numerical and perturbative computations of solitary waves of the Benjaminâ€“Ono equation with higher order nonlinearity using Christov rational basis functions. Journal of Computational Physics, 2017, 331, 216-229.	1.9	8
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