Jie Shen

List of Publications by Year in Descending Order

241 papers	11,947 citations	55 h-index	104 g-index
254 ext. papers	13,730 ext. citations	2.6 avg, IF	7.13 L-index

#	Paper	IF	Citations
241	A new Lagrange multiplier approach for constructing structure preserving schemes, I. Positivity preserving. *Computer Methods in Applied Mechanics and Engineering*, **2022**, 391, 114585	5.7	1
240	A new class of implicit–explicit BDFk SAV schemes for general dissipative systems and their error analysis. *Computer Methods in Applied Mechanics and Engineering*, **2022**, 392, 114718	5.7	2
239	A new class of higher-order decoupled schemes for the incompressible Navier-Stokes equations and applications to rotating dynamics. *Journal of Computational Physics*, **2022**, 458, 111097	4.1	0
238	Bound/positivity preserving and unconditionally stable schemes for a class of fourth order nonlinear equations. *Journal of Computational Physics*, **2022**, 460, 111177	4.1	0
237	Stability and Error Analysis of IMEX SAV Schemes for the Magneto-Hydrodynamic Equations. *SIAM Journal on Numerical Analysis*, **2022**, 60, 1026-1054	2.4	0
236	A New Lagrange Multiplier Approach for Constructing Structure Preserving Schemes, II. Bound Preserving. *SIAM Journal on Numerical Analysis*, **2022**, 60, 970-998	2.4	0
235	Discrete maximum principle of a high order finite difference scheme for a generalized Allen–Cahn equation. *Communications in Mathematical Sciences*, **2022**, 20, 1409-1436	1	0
234	A generalized SAV approach with relaxation for dissipative systems. *Journal of Computational Physics*, **2022**, 464, 111311	4.1	0
233	Modeling and simulation of cell nuclear architecture reorganization process. *Journal of Computational Physics*, **2021**, 110808	4.1	1
232	Stability and Error Analysis of a Class of High-Order IMEX Schemes for Navier--Stokes Equations with Periodic Boundary Conditions. *SIAM Journal on Numerical Analysis*, **2021**, 59, 2926-2954	2.4	2
231	Efficient Structure Preserving Schemes for the Klein–Gordon–Schrödinger Equations. *Journal of Scientific Computing*, **2021**, 89, 1	2.3	1
230	Efficient Spectral Methods for PDEs with Spectral Fractional Laplacian. *Journal of Scientific Computing*, **2021**, 88, 1	2.3	3
229	Unconditionally positivity preserving and energy dissipative schemes for Poisson–Nernst–Planck equations. *Numerische Mathematik*, **2021**, 148, 671-697	2.2	3
228	A bound-preserving high order scheme for variable density incompressible Navier-Stokes equations. *Journal of Computational Physics*, **2021**, 425, 109906	4.1	4
227	Computing interface with quasiperiodicity. *Journal of Computational Physics*, **2021**, 424, 109863	4.1	0
226	An Efficient Spectral Method for Elliptic PDEs in Complex Domains with Circular Embedding. *SIAM Journal of Scientific Computing*, **2021**, 43, A309-A329	2.6	2
225	Bound/Positivity Preserving and Energy Stable Scalar auxiliary Variable Schemes for Dissipative Systems: Applications to Keller--Segel and Poisson--Nernst--Planck Equations. *SIAM Journal of Scientific Computing*, **2021**, 43, A1832-A1857	2.6	3

224	Second-Order SAV Schemes for the Nonlinear Schrdinger Equation and Their Error Analysis. *Journal of Scientific Computing*, **2021**, 88, 1	2.3	1
223	Scalar Auxiliary Variable/Lagrange multiplier based pseudospectral schemes for the dynamics of nonlinear Schrdinger/Gross-Pitaevskii equations. *Journal of Computational Physics*, **2021**, 437, 110328	4.1	9
222	Generalized SAV approaches for gradient systems. *Journal of Computational and Applied Mathematics*, **2021**, 394, 113532	2.4	6
221	A Spectrally Accurate Approximation to Subdiffusion Equations Using the Log Orthogonal Functions. *SIAM Journal of Scientific Computing*, **2020**, 42, A849-A877	2.6	11
220	A new Lagrange multiplier approach for gradient flows. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 367, 113070	5.7	28
219	Unconditionally Bound Preserving and Energy Dissipative Schemes for a Class of Keller--Segel Equations. *SIAM Journal on Numerical Analysis*, **2020**, 58, 1674-1695	2.4	7
218	Stability and error estimates of the SAV Fourier-spectral method for the phase field crystal equation. *Advances in Computational Mathematics*, **2020**, 46, 1	1.6	17
217	Optimal error estimates for the scalar auxiliary variable finite-element schemes for gradient flows. *Numerische Mathematik*, **2020**, 145, 167-196	2.2	7
216	A Total Fractional-Order Variation Model for Image Super-Resolution and Its SAV Algorithm. *Journal of Scientific Computing*, **2020**, 82, 1	2.3	3
215	A new interface capturing method for Allen-Cahn type equations based on a flow dynamic approach in Lagrangian coordinates, I. One-dimensional case. *Journal of Computational Physics*, **2020**, 419, 109509	4.1	1
214	Stability and Error Analysis of Operator Splitting Methods for American Options Under the BlackScholes Model. *Journal of Scientific Computing*, **2020**, 82, 1	2.3	0
213	Bound preserving and energy dissipative schemes for porous medium equation. *Journal of Computational Physics*, **2020**, 410, 109378	4.1	2
212	Accurate and Efficient Spectral Methods for Elliptic PDEs in Complex Domains. *Journal of Scientific Computing*, **2020**, 83, 1	2.3	2
211	The IEQ and SAV approaches and their extensions for a class of highly nonlinear gradient flow systems. *Contemporary Mathematics*, **2020**, 217-245	1.6	25
210	An Efficient and Accurate Numerical Method for the Spectral Fractional Laplacian Equation. *Journal of Scientific Computing*, **2020**, 82, 1	2.3	4
209	An efficient numerical scheme for a 3D spherical dynamo equation. *Journal of Computational and Applied Mathematics*, **2020**, 370, 112628	2.4	
208	Fast Fourier-like Mapped Chebyshev Spectral-Galerkin Methods for PDEs with Integral Fractional Laplacian in Unbounded Domains. *SIAM Journal on Numerical Analysis*, **2020**, 58, 2435-2464	2.4	12
207	On a SAV-MAC scheme for the CahnHilliardNavierStokes phase-field model and its error analysis for the corresponding CahnHilliardStokes case. *Mathematical Models and Methods in Applied Sciences*, **2020**, 30, 2263-2297	3.5	12

206	Global Constraints Preserving Scalar Auxiliary Variable Schemes for Gradient Flows. *SIAM Journal of Scientific Computing*, **2020**, 42, A2489-A2513	2.6	12
205	A Highly Efficient and Accurate New Scalar Auxiliary Variable Approach for Gradient Flows. *SIAM Journal of Scientific Computing*, **2020**, 42, A2514-A2536	2.6	16
204	Error Analysis of the SAV-MAC Scheme for the Navier--Stokes Equations. *SIAM Journal on Numerical Analysis*, **2020**, 58, 2465-2491	2.4	17
203	Two classes of linearly implicit local energy-preserving approach for general multi-symplectic Hamiltonian PDEs. *Journal of Computational Physics*, **2020**, 401, 108975	4.1	24
202	Error estimate of Gauge□Uzawa methods for incompressible flows with variable density. *Journal of Computational and Applied Mathematics*, **2020**, 364, 112321	2.4	2
201	An Efficient Space□Time Method for Time Fractional Diffusion Equation. *Journal of Scientific Computing*, **2019**, 81, 1088-1110	2.3	8
200	Unconditionally Stable Pressure-Correction Schemes for a Nonlinear Fluid-Structure Interaction Model. *Communications on Applied Mathematics and Computation*, **2019**, 1, 61	0.9	
199	Energy stability and convergence of SAV block-centered finite difference method for gradient flows. *Mathematics of Computation*, **2019**, 88, 2047-2068	1.6	37
198	A thermodynamically consistent phase-field model for viscous sintering. *Journal of the American Ceramic Society*, **2019**, 102, 674-685	3.8	5
197	A New Class of Efficient and Robust Energy Stable Schemes for Gradient Flows. *SIAM Review*, **2019**, 61, 474-506	7.4	144
196	Efficient SAV approach for imaginary time gradient flows with applications to one- and multi-component Bose-Einstein Condensates. *Journal of Computational Physics*, **2019**, 396, 72-88	4.1	20
195	Efficient and accurate structure preserving schemes for complex nonlinear systems. *Handbook of Numerical Analysis*, **2019**, 20, 647-669	1	3
194	Stability and convergence analysis of rotational velocity correction methods for the Navier□Stokes equations. *Advances in Computational Mathematics*, **2019**, 45, 3123-3136	1.6	5
193	Fundamental gaps of the fractional Schr□dinger operator. *Communications in Mathematical Sciences* , **2019**, 17, 447-471	1	1
192	Highly Efficient and Accurate Numerical Schemes for the Epitaxial Thin Film Growth Models by Using the SAV Approach. *Journal of Scientific Computing*, **2019**, 78, 1467-1487	2.3	34
191	Approximations on SO(3) by Wigner D-matrix and Applications. *Journal of Scientific Computing*, **2018**, 74, 1706-1724	2.3	1
190	The spectral-Galerkin approximation of nonlinear eigenvalue problems. *Applied Numerical Mathematics*, **2018**, 131, 1-15	2.5	0
189	Efficient energy stable schemes for isotropic and strongly anisotropic Cahn□Hilliard systems with the Willmore regularization. *Journal of Computational Physics*, **2018**, 365, 56-73	4.1	19

188	Laguerre Functions and Their Applications to Tempered Fractional Differential Equations on Infinite Intervals. *Journal of Scientific Computing*, **2018**, 74, 1286-1313	2.3	17
187	Spectral element method with geometric mesh for two-sided fractional differential equations. *Advances in Computational Mathematics*, **2018**, 44, 745-771	1.6	22
186	Stabilized Predictor-Corrector Schemes for Gradient Flows with Strong Anisotropic Free Energy. *Communications in Computational Physics*, **2018**, 24,	2.4	14
185	The scalar auxiliary variable (SAV) approach for gradient flows. *Journal of Computational Physics*, **2018**, 353, 407-416	4.1	285
184	Fast structured Jacobi-Jacobi transforms. *Mathematics of Computation*, **2018**, 88, 1743-1772	1.6	2
183	Multiple Scalar Auxiliary Variable (MSAV) Approach and its Application to the Phase-Field Vesicle Membrane Model. *SIAM Journal of Scientific Computing*, **2018**, 40, A3982-A4006	2.6	45
182	Convergence and Error Analysis for the Scalar Auxiliary Variable (SAV) Schemes to Gradient Flows. *SIAM Journal on Numerical Analysis*, **2018**, 56, 2895-2912	2.4	98
181	Enriched Spectral Methods and Applications to Problems with Weakly Singular Solutions. *Journal of Scientific Computing*, **2018**, 77, 1468-1489	2.3	10
180	Wavenumber explicit analysis for time-harmonic Maxwell equations in a spherical shell and spectral approximations. *IMA Journal of Numerical Analysis*, **2018**, 38, 810-851	1.8	3
179	A Hybrid Spectral Element Method for Fractional Two-Point Boundary Value Problems. *Numerical Mathematics*, **2017**, 10, 437-464	1.5	11
178	A stable scheme and its convergence analysis for a 2D dynamic Q-tensor model of nematic liquid crystals. *Mathematical Models and Methods in Applied Sciences*, **2017**, 27, 1459-1488	3.5	8
177	Error estimates for time discretizations of Cahn–Hilliard and Allen–Cahn phase-field models for two-phase incompressible flows. *Numerische Mathematik*, **2017**, 137, 417-449	2.2	20
176	Efficient and accurate numerical schemes for a hydro-dynamically coupled phase field diblock copolymer model. *Journal of Computational Physics*, **2017**, 341, 44-60	4.1	30
175	Error estimates for a fully discretized scheme to a Cahn-Hilliard phase-field model for two-phase incompressible flows. *Mathematics of Computation*, **2017**, 87, 2057-2090	1.6	16
174	Hermite Spectral Methods for Fractional PDEs in Unbounded Domains. *SIAM Journal of Scientific Computing*, **2017**, 39, A1928-A1950	2.6	30
173	Unconditionally stable Gauge–Uzawa finite element schemes for incompressible natural convection problems with variable density. *Journal of Computational Physics*, **2017**, 348, 776-789	4.1	13
172	Numerical approximations for a three-component Cahn–Hilliard phase-field model based on the invariant energy quadratization method. *Mathematical Models and Methods in Applied Sciences*, **2017**, 27, 1993-2030	3.5	91
171	Highly Accurate Pseudospectral Approximations of the Prolate Spheroidal Wave Equation for Any Bandwidth Parameter and Zonal Wavenumber. *Journal of Scientific Computing*, **2017**, 71, 804-821	2.3	2

170	Numerical analysis and simulation for a generalized planar Ginzburg–Landau equation in a circular geometry. *Communications in Mathematical Sciences*, **2017**, 15, 329-357	1	1
169	Efficient splitting schemes for magneto-hydrodynamic equations. *Science China Mathematics*, **2016**, 59, 1495-1510	0.8	11
168	Effect of multi-domain structure on ionic transport, electrostatics, and current evolution in BaTiO3 ferroelectric capacitor. *Acta Materialia*, **2016**, 112, 224-230	8.4	16
167	Efficient spectral–Galerkin methods for fractional partial differential equations with variable coefficients. *Journal of Computational Physics*, **2016**, 307, 243-261	4.1	63
166	Efficient Spectral-Galerkin Method and Analysis for Elliptic PDEs with Non-local Boundary Conditions. *Journal of Scientific Computing*, **2016**, 68, 417-437	2.3	3
165	Efficient, adaptive energy stable schemes for the incompressible Cahn–Hilliard Navier–Stokes phase-field models. *Journal of Computational Physics*, **2016**, 308, 40-56	4.1	61
164	Fast Structured Direct Spectral Methods for Differential Equations with Variable Coefficients, I. The One-Dimensional Case. *SIAM Journal of Scientific Computing*, **2016**, 38, A28-A54	2.6	13
163	A decoupled energy stable scheme for a hydrodynamic phase-field model of mixtures of nematic liquid crystals and viscous fluids. *Journal of Computational Physics*, **2016**, 305, 539-556	4.1	50
162	On the maximum principle preserving schemes for the generalized Allen–Cahn equation. *Communications in Mathematical Sciences*, **2016**, 14, 1517-1534	1	63
161	Two-phase Stefan problem with smoothed enthalpy. *Communications in Mathematical Sciences*, **2016**, 14, 1625-1641	1	2
160	Efficient Spectral-Element Methods for the Electronic Schrödinger Equation. *Lecture Notes in Computational Science and Engineering*, **2016**, 265-289	0.3	
159	Efficient and accurate spectral method using generalized Jacobi functions for solving Riesz fractional differential equations. *Applied Numerical Mathematics*, **2016**, 106, 165-181	2.5	69
158	Mötz--Galerkin Methods and Applications to Mixed Dirichlet--Neumann Boundary Value Problems. *SIAM Journal of Scientific Computing*, **2016**, 38, A2357-A2381	2.6	20
157	Accurate solution and approximations of the linearized BGK equation for steady Couette flow. *Computers and Fluids*, **2015**, 111, 18-32	2.8	19
156	A pressure correction scheme for generalized form of energy-stable open boundary conditions for incompressible flows. *Journal of Computational Physics*, **2015**, 291, 254-278	4.1	22
155	Spectral approximation to a transmission eigenvalue problem and its applications to an inverse problem. *Computers and Mathematics With Applications*, **2015**, 69, 1132-1143	2.7	16
154	Dynamic Transitions of Quasi-geostrophic Channel Flow. *SIAM Journal on Applied Mathematics*, **2015**, 75, 2361-2378	1.8	14
153	Decoupled, Energy Stable Schemes for Phase-Field Models of Two-Phase Incompressible Flows. *SIAM Journal on Numerical Analysis*, **2015**, 53, 279-296	2.4	135

152	Generalized Jacobi functions and their applications to fractional differential equations. *Mathematics of Computation*, **2015**, 85, 1603-1638	1.6	143
151	Decoupled Energy Stable Schemes for a Phase-Field Model of Two-Phase Incompressible Flows with Variable Density. *Journal of Scientific Computing*, **2015**, 62, 601-622	2.3	64
150	Stabilized semi-implicit spectral deferred correction methods for Allen–Cahn and Cahn–Hilliard equations. *Mathematical Methods in the Applied Sciences*, **2015**, 38, 4564-4575	2.3	29
149	Pattern formations of 2D Rayleigh–Bénard convection with no-slip boundary conditions for the velocity at the critical length scales. *Mathematical Methods in the Applied Sciences*, **2015**, 38, 3792-3806	2.3	13
148	Efficient energy stable numerical schemes for a phase field moving contact line model. *Journal of Computational Physics*, **2015**, 284, 617-630	4.1	72
147	Modeling and simulation of fingering pattern formation in a combustion model. *Mathematical Models and Methods in Applied Sciences*, **2015**, 25, 685-720	3.5	4
146	Parallel spectral-element direction splitting method for incompressible Navier–Stokes equations. *Applied Numerical Mathematics*, **2014**, 84, 66-79	2.5	3
145	A new spectral method for numerical solution of the unbounded rough surface scattering problem. *Journal of Computational Physics*, **2014**, 275, 608-625	4.1	9
144	Approximations by orthonormal mapped Chebyshev functions for higher-dimensional problems in unbounded domains. *Journal of Computational and Applied Mathematics*, **2014**, 265, 264-275	2.4	12
143	Effect of Ferroelectric Polarization on Ionic Transport and Resistance Degradation in BaTiO3 by Phase-Field Approach. *Journal of the American Ceramic Society*, **2014**, 97, 3568-3575	3.8	20
142	Phase-field modeling of switchable diode-like current-voltage characteristics in ferroelectric BaTiO3. *Applied Physics Letters*, **2014**, 104, 182905	3.4	18
141	Decoupled Energy Stable Schemes for Phase-Field Models of Two-Phase Complex Fluids. *SIAM Journal of Scientific Computing*, **2014**, 36, B122-B145	2.6	74
140	Unconditionally Stable Pressure-Correction Schemes for a Linear Fluid-Structure Interaction Problem. *Numerical Mathematics*, **2014**, 7, 537-554	1.5	5
139	A Spectral-Element Method for Transmission Eigenvalue Problems. *Journal of Scientific Computing*, **2013**, 57, 670-688	2.3	27
138	Modeling and simulations of drop pinch-off from liquid crystal filaments and the leaky liquid crystal faucet immersed in viscous fluids. *Journal of Computational Physics*, **2013**, 236, 1-14	4.1	37
137	Error Analysis of the Strang Time-Splitting Laguerre–Hermite/Hermite Collocation Methods for the Gross–Pitaevskii Equation. *Foundations of Computational Mathematics*, **2013**, 13, 99-137	2.7	14
136	An Efficient and Stable Spectral-Element Method for Acoustic Scattering by an Obstacle. *East Asian Journal on Applied Mathematics*, **2013**, 3, 190-208	4	
135	A GPU parallelized spectral method for elliptic equations in rectangular domains. *Journal of Computational Physics*, **2013**, 250, 555-564	4.1	5

134	Role of polaron hopping in leakage current behavior of a SrTiO3 single crystal. *Journal of Applied Physics*, **2013**, 114, 224102	2.5	20
133	Efficient Energy Stable Schemes with Spectral Discretization in Space for Anisotropic Cahn-Hilliard Systems. *Communications in Computational Physics*, **2013**, 13, 1189-1208	2.4	55
132	An Efficient, Energy Stable Scheme for the Cahn-Hilliard-Brinkman System. *Communications in Computational Physics*, **2013**, 13, 929-957	2.4	52
131	Mass and Volume Conservation in Phase Field Models for Binary Fluids. *Communications in Computational Physics*, **2013**, 13, 1045-1065	2.4	52
130	An efficient and stable spectral method for electromagnetic scattering from a layered periodic structure. *Journal of Computational Physics*, **2012**, 231, 3007-3022	4.1	16
129	Second-order Convex Splitting Schemes for Gradient Flows with Ehrlich–Schwoebel Type Energy: Application to Thin Film Epitaxy. *SIAM Journal on Numerical Analysis*, **2012**, 50, 105-125	2.4	190
128	Efficient Spectral Sparse Grid Methods and Applications to High-Dimensional Elliptic Equations II. Unbounded Domains. *SIAM Journal of Scientific Computing*, **2012**, 34, A1141-A1164	2.6	21
127	Efficient spectral-Galerkin methods for systems of coupled second-order equations and their applications. *Journal of Computational Physics*, **2012**, 231, 5016-5028	4.1	23
126	A time-stepping scheme involving constant coefficient matrices for phase-field simulations of two-phase incompressible flows with large density ratios. *Journal of Computational Physics*, **2012**, 231, 5788-5804	4.1	104
125	On the Approximation of the Fokker–Planck Equation of the Finitely Extensible Nonlinear Elastic Dumbbell Model I: A New Weighted Formulation and an Optimal Spectral-Galerkin Algorithm in Two Dimensions. *SIAM Journal on Numerical Analysis*, **2012**, 50, 1136-1161	2.4	5
124	Analysis of the scattering by an unbounded rough surface. *Mathematical Methods in the Applied Sciences*, **2012**, 35, 2166-2184	2.3	15
123	A New Spectral Element Method for Pricing European Options Under the Black–Scholes and Merton Jump Diffusion Models. *Journal of Scientific Computing*, **2012**, 52, 499-518	2.3	14
122	A Unstructured Nodal Spectral-Element Method for the Navier-Stokes Equations. *Communications in Computational Physics*, **2012**, 12, 315-336	2.4	12
121	Orthogonal Polynomials and Related Approximation Results. *Springer Series in Computational Mathematics*, **2011**, 47-140	0.9	2
120	Spectral Methods for Second-Order Two-Point Boundary Value Problems. *Springer Series in Computational Mathematics*, **2011**, 141-180	0.9	2
119	Applications in Multi-Dimensional Domains. *Springer Series in Computational Mathematics*, **2011**, 367-413	0.9	3
118	Spectral Methods. *Springer Series in Computational Mathematics*, **2011**,	0.9	511
117	A Pressure-Correction Scheme for Rotational Navier-Stokes Equations and Its Application to Rotating Turbulent Flows. *Communications in Computational Physics*, **2011**, 9, 740-755	2.4	12

116	Spectral Direction Splitting Schemes for the Incompressible Navier-Stokes Equations. *East Asian Journal on Applied Mathematics*, **2011**, 1, 215-234	4	8
115	Shear cell rupture of nematic liquid crystal droplets in viscous fluids. *Journal of Non-Newtonian Fluid Mechanics*, **2011**, 166, 487-499	2.7	23
114	A Triangular Spectral Method for the Stokes Equations. *Numerical Mathematics*, **2011**, 4, 158-179	1.5	9
113	MODELING AND NUMERICAL APPROXIMATION OF TWO-PHASE INCOMPRESSIBLE FLOWS BY A PHASE-FIELD APPROACH. *Lecture Notes Series, Institute for Mathematical Sciences*, **2011**, 147-195	0.1	20
112	Sparse Spectral Approximations of High-Dimensional Problems Based on Hyperbolic Cross. *SIAM Journal on Numerical Analysis*, **2010**, 48, 1087-1109	2.4	37
111	A Phase-Field Model and Its Numerical Approximation for Two-Phase Incompressible Flows with Different Densities and Viscosities. *SIAM Journal of Scientific Computing*, **2010**, 32, 1159-1179	2.6	191
110	Efficient Spectral Sparse Grid Methods and Applications to High-Dimensional Elliptic Problems. *SIAM Journal of Scientific Computing*, **2010**, 32, 3228-3250	2.6	54
109	Modeling and simulation of switchings in ferroelectric liquid crystals. *Discrete and Continuous Dynamical Systems*, **2010**, 26, 1419-1440	2	1
108	An unconditionally stable rotational velocity-correction scheme for incompressible flows. *Journal of Computational Physics*, **2010**, 229, 7013-7029	4.1	22
107	Energy stable schemes for Cahn-Hilliard phase-field model of two-phase incompressible flows. *Chinese Annals of Mathematics Series B*, **2010**, 31, 743-758	0.4	80
106	A Coupled Legendre-Laguerre Spectral-Element Method for the Navier-Stokes Equations in Unbounded Domains. *Journal of Scientific Computing*, **2010**, 42, 1-22	2.3	8
105	Numerical approximations of Allen-Cahn and Cahn-Hilliard equations. *Discrete and Continuous Dynamical Systems*, **2010**, 28, 1669-1691	2	418
104	A mathematical and numerical study of incompressible flows with a surfactant monolayer. *Discrete and Continuous Dynamical Systems*, **2010**, 28, 181-197	2	2
103	An Efficient and Accurate Spectral Method for Acoustic Scattering in Elliptic Domains. *Numerical Mathematics*, **2009**, 2, 258-274	1.5	3
102	Surface effect on domain wall width in ferroelectrics. *Journal of Applied Physics*, **2009**, 106, 084102	2.5	50
101	Efficient stochastic Galerkin methods for random diffusion equations. *Journal of Computational Physics*, **2009**, 228, 266-281	4.1	49
100	An efficient moving mesh spectral method for the phase-field model of two-phase flows. *Journal of Computational Physics*, **2009**, 228, 2978-2992	4.1	72
99	Generalized Jacobi polynomials/functions and their applications. *Applied Numerical Mathematics*, **2009**, 59, 1011-1028	2.5	64

98	A Triangular Spectral Element Method Using Fully Tensorial Rational Basis Functions. *SIAM Journal on Numerical Analysis*, **2009**, 47, 1619-1650	2.4	30
97	A Laguerre–Legendre Spectral Method for the Stokes Problem in a Semi-Infinite Channel. *SIAM Journal on Numerical Analysis*, **2009**, 47, 271-292	2.4	12
96	A Rigorous Numerical Analysis of the Transformed Field Expansion Method. *SIAM Journal on Numerical Analysis*, **2009**, 47, 2708-2734	2.4	23
95	A Generalized-Laguerre–Fourier–Hermite Pseudospectral Method for Computing the Dynamics of Rotating Bose–Einstein Condensates. *SIAM Journal of Scientific Computing*, **2009**, 31, 3685-3711	2.6	39
94	Optimal error estimates in Jacobi-weighted Sobolev spaces for polynomial approximations on the triangle. *Mathematics of Computation*, **2009**, 79, 1621-1646	1.6	21
93	Dimensional Robustness and Instability of Sheared, Semidilute, Nanorod Dispersions. *Multiscale Modeling and Simulation*, **2008**, 7, 622-654	1.8	7
92	On Numerical Approximations of Forward-Backward Stochastic Differential Equations. *SIAM Journal on Numerical Analysis*, **2008**, 46, 2636-2661	2.4	39
91	On spectral approximations in elliptical geometries using Mathieu functions. *Mathematics of Computation*, **2008**, 78, 815-844	1.6	11
90	Error analysis of fully discrete velocity-correction methods for incompressible flows. *Mathematics of Computation*, **2008**, 77, 1387-1405	1.6	13
89	A Dual-Petrov-Galerkin Method for the Kawahara-Type Equations. *Journal of Scientific Computing*, **2008**, 34, 48-63	2.3	25
88	Irrational approximations and their applications to partial differential equations in exterior domains,. *Advances in Computational Mathematics*, **2008**, 28, 237-267	1.6	8
87	A generalized-Laguerre–Hermite pseudospectral method for computing symmetric and central vortex states in Bose–Einstein condensates. *Journal of Computational Physics*, **2008**, 227, 9778-9793	4.1	29
86	Legendre and Chebyshev dual-Petrov–Galerkin methods for Hyperbolic equations. *Computer Methods in Applied Mechanics and Engineering*, **2007**, 196, 3785-3797	5.7	19
85	Fourierization of the Legendre–Galerkin method and a new space–time spectral method. *Applied Numerical Mathematics*, **2007**, 57, 710-720	2.5	57
84	Eventual periodicity for the KdV equation on a half-line. *Physica D: Nonlinear Phenomena*, **2007**, 227, 105-119	3.1	9
83	Gauge–Uzawa methods for incompressible flows with variable density. *Journal of Computational Physics*, **2007**, 221, 181-197	4.1	59
82	A stable, high-order method for three-dimensional, bounded-obstacle, acoustic scattering. *Journal of Computational Physics*, **2007**, 224, 1145-1169	4.1	33
81	An efficient direct parallel spectral-element solver for separable elliptic problems. *Journal of Computational Physics*, **2007**, 225, 1721-1735	4.1	17

80	Heart-shaped bubbles rising in anisotropic liquids. *Physics of Fluids*, **2007**, 19, 041703	4.4	9
79	Analysis of a Spectral-Galerkin Approximation to the Helmholtz Equation in Exterior Domains. *SIAM Journal on Numerical Analysis*, **2007**, 45, 1954-1978	2.4	46
78	Error estimates for finite element approximations of consistent splitting schemes for incompressible flows. *Discrete and Continuous Dynamical Systems - Series B*, **2007**, 8, 663-676	1.3	7
77	Pressure boundary condition for the time-dependent incompressible Navier–Stokes equations. *International Journal for Numerical Methods in Fluids*, **2006**, 50, 673-682	1.9	54
76	A Stable High-Order Method for Two-Dimensional Bounded-Obstacle Scattering. *SIAM Journal of Scientific Computing*, **2006**, 28, 1398-1419	2.6	32
75	A few new (?) facts about infinite elements. *Computer Methods in Applied Mechanics and Engineering* , **2006**, 195, 3572-3590	5.7	12
74	An overview of projection methods for incompressible flows. *Computer Methods in Applied Mechanics and Engineering*, **2006**, 195, 6011-6045	5.7	731
73	Numerical simulations of jet pinching-off and drop formation using an energetic variational phase-field method. *Journal of Computational Physics*, **2006**, 218, 417-428	4.1	163
72	Optimal Spectral-Galerkin Methods Using Generalized Jacobi Polynomials. *Journal of Scientific Computing*, **2006**, 27, 305-322	2.3	97
71	Laguerre and composite Legendre-Laguerre Dual-Petrov-Galerkin methods for third-order equations. *Discrete and Continuous Dynamical Systems - Series B*, **2006**, 6, 1381-1402	1.3	13
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