Shidong Jiang

List of Publications by Year
in descending order

47 papers	906 citations	567281 15 h-index	477307 29 g-index
47 all docs	47 docs citations	47 times ranked	605 citing authors

#	Article	IF	Citations
1	Fast Evaluation of the Caputo Fractional Derivative and its Applications to Fractional Diffusion Equations. Communications in Computational Physics, 2017, 21, 650-678.	1.7	308
2	Fast evaluation of nonreflecting boundary conditions for the Schrödinger equation in one dimension. Computers and Mathematics With Applications, 2004, 47, 955-966.	2.7	67
3	Efficient representation of nonreflecting boundary conditions for the time‐dependent Schrödinger equation in two dimensions. Communications on Pure and Applied Mathematics, 2008, 61, 261-288.	3.1	49
4	Fast and Accurate Evaluation of Nonlocal Coulomb and Dipole-Dipole Interactions via the Nonuniform FFT. SIAM Journal of Scientific Computing, 2014, 36, B777-B794.	2.8	41
5	Second kind integral equations for the classical potential theory on open surfaces II. Journal of Computational Physics, 2004, 195, 1-16.	3.8	39
6	Numerical solution to a linearized time fractional KdV equation on unbounded domains. Mathematics of Computation, 2017, 87, 693-719.	2.1	35
7	A fast multipole method for the Rotne–Prager–Yamakawa tensor and its applications. Journal of Computational Physics, 2013, 234, 133-139.	3.8	34
8	Computing the ground state and dynamics of the nonlinear Schrödinger equation with nonlocal interactions via the nonuniform FFT. Journal of Computational Physics, 2015, 296, 72-89.	3.8	25
9	A Hybrid Method for Systems of Closely Spaced Dielectric Spheres and Ions. SIAM Journal of Scientific Computing, 2016, 38, B375-B395.	2.8	25
10	Analysis and accurate numerical solutions of the integral equation derived from the linearized BGKW equation for the steady Couette flow. Journal of Computational Physics, 2016, 316, 416-434.	3.8	24
11	A Bootstrap Method for Sum-of-Poles Approximations. Journal of Scientific Computing, 2013, 55, 16-39.	2.3	23
12	Quadruple and octuple layer potentials in two dimensionsÂI: Analytical apparatus. Applied and Computational Harmonic Analysis, 2003, 14, 47-74.	2.2	17
13	Integral Equation Methods for Unsteady Stokes Flow in Two Dimensions. SIAM Journal of Scientific Computing, 2012, 34, A2197-A2219.	2.8	17
14	Efficient sum-of-exponentials approximations for the heat kernel and their applications. Advances in Computational Mathematics, 2015, 41, 529-551.	1.6	17
15	Incorporating the Havriliak–Negami dielectric model in the FD-TD method. Journal of Computational Physics, 2011, 230, 3884-3899.	3.8	15
16	A fast algorithm for Brownian dynamics simulation with hydrodynamic interactions. Mathematics of Computation, 2013, 82, 1631-1645.	2.1	11
17	Second kind integral equation formulation for the modified biharmonic equation and its applications. Journal of Computational Physics, 2013, 249, 113-126.	3.8	10
18	The solution of the scalar wave equation in the exterior of a sphere. Journal of Computational Physics, 2014, 274, 191-207.	3.8	10

#	ARTICLE	IF	CITATIONS
19	The Anisotropic Truncated Kernel Method for Convolution with Free-Space Green's Functions. SIAM Journal of Scientific Computing, 2018, 40, A3733-A3754.	2.8	10
20	On Integral Equation Methods for the First Dirichlet Problem of the Biharmonic and Modified Biharmonic Equations in NonSmooth Domains. SIAM Journal of Scientific Computing, 2018, 40, A2609-A2630.	2.8	10
21	Second kind integral equations for the first kind Dirichlet problem of the biharmonic equation in three dimensions. Journal of Computational Physics, 2011, 230, 7488-7501.	3.8	9
22	An Efficient Boundary Integral Scheme for the MBO Threshold Dynamics Method via the NUFFT. Journal of Scientific Computing, 2018, 74, 474-490.	2.3	9
23	Second kind integral equations for the classical potential theory on open surfaces I: analytical apparatus. Journal of Computational Physics, 2003, 191, 40-74.	3.8	8
24	An Efficient High Order Method for Dislocation Climb in Two Dimensions. Multiscale Modeling and Simulation, 2017, 15, 235-253.	1.6	8
25	Generalized Poincaré–Bertrand formula on a hypersurface. Applied and Computational Harmonic Analysis, 2009, 27, 100-116.	2.2	7
26	One-Dimensional Finite Element Method Solution of a Class of Integro-Differential Equations: Application to Non-Fickian Transport in Disordered Media. Transport in Porous Media, 2016, 115, 239-263.	2.6	7
27	Efficient dynamic simulations of charged dielectric colloids through a novel hybrid method. Journal of Chemical Physics, 2019, 151, 024112.	3.0	7
28	An Efficient Boundary Integral Scheme for the Threshold Dynamics Method II: Applications to Wetting Dynamics. Journal of Scientific Computing, 2019, 81, 1860-1881.	2.3	7
29	Hyperpolarizabilities for the one-dimensional infinite single-electron periodic systems. I. Analytical solutions under dipole-dipole correlations. Journal of Chemical Physics, 2005, 123, 064901.	3.0	6
30	Extension of the Lorenz–Mie–Debye method for electromagnetic scattering to the time-domain. Journal of Computational Physics, 2015, 299, 98-105.	3.8	6
31	Second kind integral equation formulation for the mode calculation of optical waveguides. Applied and Computational Harmonic Analysis, 2018, 44, 645-664.	2.2	5
32	Finite–Element Method Solution of Non–Fickian Transport in Porous Media: The CTRW–FEM Package. Ground Water, 2019, 57, 479-484.	1.3	5
33	Fast High-Order Integral Equation Methods for Solving Boundary Value Problems of Two Dimensional Heat Equation in Complex Geometry. Journal of Scientific Computing, 2019, 79, 787-808.	2.3	5
34	A New Mixed Potential Representation for Unsteady, Incompressible Flow. SIAM Review, 2019, 61, 733-755.	9.5	4
35	Simulation of Multiscale Hydrophobic Lipid Dynamics via Efficient Integral Equation Methods. Multiscale Modeling and Simulation, 2020, 18, 79-103.	1.6	4
36	Solving Fredholm second-kind integral equations with singular right-hand sides on non-smooth boundaries. Journal of Computational Physics, 2022, 448, 110714.	3.8	4

#	ARTICLE	IF	CITATIONS
37	Hyperpolarizabilities for the one-dimensional infinite single-electron periodic systems. II. Dipole-dipole versus current-current correlations. Journal of Chemical Physics, 2005, 123, 064902.	3.0	3
38	An integral equation method for the Cahn-Hilliard equation in the wetting problem. Journal of Computational Physics, 2020, 419, 109521.	3.8	3
39	Jump relations of the quadruple layer potential on a regular surface in three dimensions. Applied and Computational Harmonic Analysis, 2006, 21, 395-403.	2.2	2
40	Size dependence of second-order hyperpolarizability of finite periodic chains under Su-Schrieffer-Heeger model. Europhysics Letters, 2006, 76, 670-676.	2.0	2
41	Breaking of the overall permutation symmetry in nonlinear optical susceptibilities of one-dimensional periodic dimerized HÃ¼ckel model. Journal of Physics Condensed Matter, 2006, 18, 8987-8993.	1.8	2
42	Efficient Brownian dynamics simulation of DNA molecules with hydrodynamic interactions in linear flows. Physical Review E, 2015, 91, 063008.	2.1	2
43	Quantitative study of the effect of cladding thickness on modal confinement loss in photonic waveguides. Optics Express, 2016, 24, 24872.	3.4	2
44	Evaluation of Abramowitz functions in the right half of the complex plane. Journal of Computational Physics, 2020, 405, 109169.	3.8	1
45	On Time-Domain NRBC for Maxwellâ€™s Equations and Its Application in Accurate Simulation of Electromagnetic Invisibility Cloaks. Journal of Scientific Computing, 2021, 86, 1.	2.3	1
46	On the accurate evaluation of unsteady Stokes layer potentials in moving two-dimensional geometries. Advances in Computational Mathematics, 2020, 46, 1.	1.6	0
47	Overall permutation symmetry breakdown in nonlinear optical susceptibilities of one-dimensional periodic systems. , 2006, , .		0