

Weizhu Bao

List of Publications by Year in descending order

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147
papers

6,295
citations

76294

40
h-index

76872

74
g-index

149
all docs

149
docs citations

149
times ranked

1882
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical solution of the Gross-Pitaevskii equation for Bose-Einstein condensation. <i>Journal of Computational Physics</i> , 2003, 187, 318-342.	1.9	465
2	Mathematical theory and numerical methods for Bose-Einstein condensation. <i>Kinetic and Related Models</i> , 2013, 6, 1-135.	0.5	337
3	On Time-Splitting Spectral Approximations for the Schrödinger Equation in the Semiclassical Regime. <i>Journal of Computational Physics</i> , 2002, 175, 487-524.	1.9	318
4	Computing the Ground State Solution of Bose-Einstein Condensates by a Normalized Gradient Flow. <i>SIAM Journal of Scientific Computing</i> , 2004, 25, 1674-1697.	1.3	316
5	Computational methods for the dynamics of the nonlinear Schrödinger/Gross-Pitaevskii equations. <i>Computer Physics Communications</i> , 2013, 184, 2621-2633.	3.0	258
6	Numerical Study of Time-Splitting Spectral Discretizations of Nonlinear Schrödinger Equations in the Semiclassical Regimes. <i>SIAM Journal of Scientific Computing</i> , 2003, 25, 27-64.	1.3	167
7	Uniform Error Estimates of Finite Difference Methods for the Nonlinear Schrödinger Equation with Wave Operator. <i>SIAM Journal on Numerical Analysis</i> , 2012, 50, 492-521.	1.1	136
8	Optimal error estimates of finite difference methods for the Gross-Pitaevskii equation with angular momentum rotation. <i>Mathematics of Computation</i> , 2012, 82, 99-128.	1.1	130
9	Ground States and Dynamics of Multicomponent Bose-Einstein Condensates. <i>Multiscale Modeling and Simulation</i> , 2004, 2, 210-236.	0.6	128
10	Analysis and comparison of numerical methods for the Klein-Gordon equation in the nonrelativistic limit regime. <i>Numerische Mathematik</i> , 2012, 120, 189-229.	0.9	128
11	A Fourth-Order Time-Splitting Laguerre-Hermite Pseudospectral Method for Bose-Einstein Condensates. <i>SIAM Journal of Scientific Computing</i> , 2005, 26, 2010-2028.	1.3	123
12	Ground-state solution of Bose-Einstein condensate by directly minimizing the energy functional. <i>Journal of Computational Physics</i> , 2003, 187, 230-254.	1.9	118
13	Efficient numerical methods for computing ground states and dynamics of dipolar Bose-Einstein condensates. <i>Journal of Computational Physics</i> , 2010, 229, 7874-7892.	1.9	114
14	Efficient and spectrally accurate numerical methods for computing ground and first excited states in Bose-Einstein condensates. <i>Journal of Computational Physics</i> , 2006, 219, 836-854.	1.9	112
15	An efficient and spectrally accurate numerical method for computing dynamics of rotating Bose-Einstein condensates. <i>Journal of Computational Physics</i> , 2006, 217, 612-626.	1.9	111
16	Ground, Symmetric and Central Vortex States in Rotating Bose-Einstein Condensates. <i>Communications in Mathematical Sciences</i> , 2005, 3, 57-88.	0.5	104
17	Efficient and accurate numerical methods for the Klein-Gordon-Schrödinger equations. <i>Journal of Computational Physics</i> , 2007, 225, 1863-1893.	1.9	101
18	An Explicit Unconditionally Stable Numerical Method for Solving Damped Nonlinear Schrödinger Equations with a Focusing Nonlinearity. <i>SIAM Journal on Numerical Analysis</i> , 2003, 41, 1406-1426.	1.1	84

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19	Dynamics of Rotating Bose-Einstein Condensates and its Efficient and Accurate Numerical Computation. <i>SIAM Journal on Applied Mathematics</i> , 2006, 66, 758-786.	0.8	83
20	Self-trapping of impurities in Bose-Einstein condensates: Strong attractive and repulsive coupling. <i>Europhysics Letters</i> , 2008, 82, 30004.	0.7	81
21	Phase field approach for simulating solid-state dewetting problems. <i>Acta Materialia</i> , 2012, 60, 5578-5592.	3.8	79
22	Numerical methods and comparison for computing dark and bright solitons in the nonlinear Schrödinger equation. <i>Journal of Computational Physics</i> , 2013, 235, 423-445.	1.9	79
23	Symmetry breaking and self-trapping of a dipolar Bose-Einstein condensate in a double-well potential. <i>Physical Review A</i> , 2009, 79, .	1.0	78
24	Mean-field regime of trapped dipolar Bose-Einstein condensates in one and two dimensions. <i>Physical Review A</i> , 2010, 82, .	1.0	69
25	Numerical methods for the generalized Zakharov system. <i>Journal of Computational Physics</i> , 2003, 190, 201-228.	1.9	64
26	Computing Ground States of Spin-1 Bose-Einstein Condensates by the Normalized Gradient Flow. <i>SIAM Journal of Scientific Computing</i> , 2008, 30, 1925-1948.	1.3	64
27	A Uniformly Accurate Multiscale Time Integrator Pseudospectral Method for the Klein-Gordon Equation in the Nonrelativistic Limit Regime. <i>SIAM Journal on Numerical Analysis</i> , 2014, 52, 2488-2511.	1.1	63
28	The Random Projection Method for Hyperbolic Conservation Laws with Stiff Reaction Terms. <i>Journal of Computational Physics</i> , 2000, 163, 216-248.	1.9	62
29	An efficient and stable numerical method for the Maxwell-Dirac system. <i>Journal of Computational Physics</i> , 2004, 199, 663-687.	1.9	57
30	A Generalized-Laguerre-Fourier-Hermite Pseudospectral Method for Computing the Dynamics of Rotating Bose-Einstein Condensates. <i>SIAM Journal of Scientific Computing</i> , 2009, 31, 3685-3711.	1.3	57
31	Uniform and Optimal Error Estimates of an Exponential Wave Integrator Sine Pseudospectral Method for the Nonlinear Schrödinger Equation with Wave Operator. <i>SIAM Journal on Numerical Analysis</i> , 2014, 52, 1103-1127.	1.1	57
32	An Exponential Wave Integrator Sine Pseudospectral Method for the Klein-Gordon-Zakharov System. <i>SIAM Journal of Scientific Computing</i> , 2013, 35, A2903-A2927.	1.3	54
33	Ground States of Two-component Bose-Einstein Condensates with an Internal Atomic Josephson Junction. <i>East Asian Journal on Applied Mathematics</i> , 2011, 1, 49-81.	0.4	53
34	Error estimates of numerical methods for the nonlinear Dirac equation in the nonrelativistic limit regime. <i>Science China Mathematics</i> , 2016, 59, 1461-1494.	0.8	51
35	Dynamics of rotating two-component Bose-Einstein condensates and its efficient computation. <i>Physica D: Nonlinear Phenomena</i> , 2007, 234, 49-69.	1.3	48
36	Fractional quantum mechanics in polariton condensates with velocity-dependent mass. <i>Physical Review B</i> , 2015, 92, .	1.1	47

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37	Efficient and Stable Numerical Methods for the Generalized and Vector Zakharov System. SIAM Journal of Scientific Computing, 2005, 26, 1057-1088.	1.3	42
38	A variational-difference numerical method for designing progressive-addition lenses. CAD Computer Aided Design, 2014, 48, 17-27.	1.4	42
39	Numerical Methods and Comparison for the Dirac Equation in the Nonrelativistic Limit Regime. Journal of Scientific Computing, 2017, 71, 1094-1134.	1.1	42
40	Fast and Accurate Evaluation of Nonlocal Coulomb and Dipole-Dipole Interactions via the Nonuniform FFT. SIAM Journal of Scientific Computing, 2014, 36, B777-B794.	1.3	41
41	Effective One Particle Quantum Dynamics of Electrons: A Numerical Study of the Schrodinger-Poisson- χ - α Model. Communications in Mathematical Sciences, 2003, 1, 809-828.	0.5	41
42	Three-dimensional simulation of jet formation in collapsing condensates. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 329-343.	0.6	40
43	DYNAMICS OF THE GROUND STATE AND CENTRAL VORTEX STATES IN BOSE-EINSTEIN CONDENSATION. Mathematical Models and Methods in Applied Sciences, 2005, 15, 1863-1896.	1.7	39
44	Numerical methods for computing the ground state of spin-1 Bose-Einstein condensates in a uniform magnetic field. Physical Review E, 2008, 78, 066704.	0.8	39
45	A discrete artificial boundary condition for steady incompressible viscous flows in a no-slip channel using a fast iterative method. Journal of Computational Physics, 1994, 114, 201-208.	1.9	38
46	A parametric finite element method for solid-state dewetting problems with anisotropic surface energies. Journal of Computational Physics, 2017, 330, 380-400.	1.9	36
47	Ground States and Dynamics of Spin-Orbit-Coupled Bose-Einstein Condensates. SIAM Journal on Applied Mathematics, 2015, 75, 492-517.	0.8	35
48	A uniformly accurate (UA) multiscale time integrator Fourier pseudospectral method for the Klein-Gordon-Schrödinger equations in the nonrelativistic limit regime. Numerische Mathematik, 2017, 135, 833-873.	0.9	35
49	Breathing oscillations of a trapped impurity in a Bose gas. Europhysics Letters, 2012, 98, 26001.	0.7	34
50	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.	1.9	32
51	A Mass and Magnetization Conservative and Energy-Diminishing Numerical Method for Computing Ground State of Spin-1 Bose-Einstein Condensates. SIAM Journal on Numerical Analysis, 2007, 45, 2177-2200.	1.1	31
52	Sharp interface model for solid-state dewetting problems with weakly anisotropic surface energies. Physical Review B, 2015, 91, .	1.1	31
53	Error Estimates of a Regularized Finite Difference Method for the Logarithmic Schrödinger Equation. SIAM Journal on Numerical Analysis, 2019, 57, 657-680.	1.1	31
54	Error Estimates for the Finite Element Approximation of Problems in Unbounded Domains. SIAM Journal on Numerical Analysis, 2000, 37, 1101-1119.	1.1	30

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55	Dynamics of vortices in weakly interacting Bose-Einstein condensates. <i>Physical Review A</i> , 2007, 76, .	1.0	30
56	A Regularized Newton Method for Computing Ground States of Bose-Einstein Condensates. <i>Journal of Scientific Computing</i> , 2017, 73, 303-329.	1.1	30
57	A Simple and Efficient Numerical Method for Computing the Dynamics of Rotating Bose-Einstein Condensates via Rotating Lagrangian Coordinates. <i>SIAM Journal of Scientific Computing</i> , 2013, 35, A2671-A2695.	1.3	29
58	Numerical methods for computing ground states and dynamics of nonlinear relativistic Hartree equation for boson stars. <i>Journal of Computational Physics</i> , 2011, 230, 5449-5469.	1.9	28
59	A uniformly accurate multiscale time integrator spectral method for the Klein-Gordon-Zakharov system in the high-plasma-frequency limit regime. <i>Journal of Computational Physics</i> , 2016, 327, 270-293.	1.9	28
60	Solid-state dewetting and island morphologies in strongly anisotropic materials. <i>Scripta Materialia</i> , 2016, 115, 123-127.	2.6	28
61	Comparisons between sine-Gordon and perturbed nonlinear Schrödinger equations for modeling light bullets beyond critical collapse. <i>Physica D: Nonlinear Phenomena</i> , 2010, 239, 1120-1134.	1.3	27
62	Numerical simulation of vortex dynamics in Ginzburg-Landau-Schrödinger equation. <i>European Journal of Applied Mathematics</i> , 2007, 18, 607-630.	1.4	26
63	Comparison of numerical methods for the nonlinear Klein-Gordon equation in the nonrelativistic limit regime. <i>Journal of Computational Physics</i> , 2019, 398, 108886.	1.9	26
64	Computing the ground state and dynamics of the nonlinear Schrödinger equation with nonlocal interactions via the nonuniform FFT. <i>Journal of Computational Physics</i> , 2015, 296, 72-89.	1.9	25
65	A Uniformly Accurate Multiscale Time Integrator Pseudospectral Method for the Dirac Equation in the Nonrelativistic Limit Regime. <i>SIAM Journal on Numerical Analysis</i> , 2016, 54, 1785-1812.	1.1	25
66	Efficient numerical methods for computing ground states of spin-1 Bose-Einstein condensates based on their characterizations. <i>Journal of Computational Physics</i> , 2013, 253, 189-208.	1.9	24
67	Accurate and Efficient Numerical Methods for Computing Ground States and Dynamics of Dipolar Bose-Einstein Condensates via the Nonuniform FFT. <i>Communications in Computational Physics</i> , 2016, 19, 1141-1166.	0.7	24
68	Numerical Methods for the Nonlinear Schrödinger Equation with Nonzero Far-field Conditions. <i>Methods and Applications of Analysis</i> , 2004, 11, 367-388.	0.1	24
69	The Dynamics and Interaction of Quantized Vortices in the Ginzburg-Landau-Schrödinger Equation. <i>SIAM Journal on Applied Mathematics</i> , 2007, 67, 1740-1775.	0.8	23
70	A Structure-Preserving Parametric Finite Element Method for Surface Diffusion. <i>SIAM Journal on Numerical Analysis</i> , 2021, 59, 2775-2799.	1.1	23
71	A priori and a posteriori error bounds for a nonconforming linear finite element approximation of a non-newtonian flow. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 1998, 32, 843-858.	0.8	22
72	Gross-Pitaevskii-Poisson Equations for Dipolar Bose-Einstein Condensate with Anisotropic Confinement. <i>SIAM Journal on Mathematical Analysis</i> , 2012, 44, 1713-1741.	0.9	22

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73	Regularized numerical methods for the logarithmic Schrödinger equation. <i>Numerische Mathematik</i> , 2019, 143, 461-487.	0.9	22
74	Stable Equilibria of Anisotropic Particles on Substrates: A Generalized Winterbottom Construction. <i>SIAM Journal on Applied Mathematics</i> , 2017, 77, 2093-2118.	0.8	21
75	A Parametric Finite Element Method for Solid-State Dewetting Problems in Three Dimensions. <i>SIAM Journal of Scientific Computing</i> , 2020, 42, B327-B352.	1.3	21
76	AN ARTIFICIAL BOUNDARY CONDITION FOR TWO-DIMENSIONAL INCOMPRESSIBLE VISCOUS FLOWS USING THE METHOD OF LINES. <i>International Journal for Numerical Methods in Fluids</i> , 1996, 22, 483-493.	0.9	20
77	The Random Projection Method for Stiff Multispecies Detonation Capturing. <i>Journal of Computational Physics</i> , 2002, 178, 37-57.	1.9	20
78	The Nonlinear Schrödinger Equation and Applications in Bose-Einstein Condensation and Plasma Physics. <i>Lecture Notes Series, Institute for Mathematical Sciences</i> , 2007, , 141-239.	0.2	20
79	ON THE INF [∞] -SUP CONDITION OF MIXED FINITE ELEMENT FORMULATIONS FOR ACOUSTIC FLUIDS. <i>Mathematical Models and Methods in Applied Sciences</i> , 2001, 11, 883-901.	1.7	19
80	Numerical simulation for the problem of infinite elastic foundation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1997, 147, 369-385.	3.4	18
81	Sharp-Interface Model for Simulating Solid-State Dewetting in Three Dimensions. <i>SIAM Journal on Applied Mathematics</i> , 2020, 80, 1654-1677.	0.8	18
82	High-order local artificial boundary conditions for problems in unbounded domains. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2000, 188, 455-471.	3.4	17
83	Uniform Error Bounds of a Finite Difference Method for the Zakharov System in the Subsonic Limit Regime via an Asymptotic Consistent Formulation. <i>Multiscale Modeling and Simulation</i> , 2017, 15, 977-1002.	0.6	17
84	A Uniformly and Optimally Accurate Method for the Zakharov System in the Subsonic Limit Regime. <i>SIAM Journal of Scientific Computing</i> , 2018, 40, A929-A953.	1.3	17
85	The Random Projection Method for Stiff Detonation Capturing. <i>SIAM Journal of Scientific Computing</i> , 2001, 23, 1000-1026.	1.3	16
86	ON THE GROSS-PITAEVSKII EQUATION WITH STRONGLY ANISOTROPIC CONFINEMENT: FORMAL ASYMPTOTICS AND NUMERICAL EXPERIMENTS. <i>Mathematical Models and Methods in Applied Sciences</i> , 2005, 15, 767-782.	1.7	16
87	Dynamics of the center of mass in rotating Bose-Einstein condensates. <i>Applied Numerical Mathematics</i> , 2007, 57, 697-709.	1.2	16
88	Hubbard Model for Atomic Impurities Bound by the Vortex Lattice of a Rotating Bose-Einstein Condensate. <i>Physical Review Letters</i> , 2016, 116, 240402.	2.9	16
89	Uniform error bounds of a finite difference method for the Klein-Gordon-Zakharov system in the subsonic limit regime. <i>Mathematics of Computation</i> , 2017, 87, 2133-2158.	1.1	16
90	Dynamical Laws of the Coupled Gross-Pitaevskii Equations for Spin-1 Bose-Einstein Condensates. <i>Methods and Applications of Analysis</i> , 2010, 17, 49-80.	0.1	16

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91	Convergence rate of dimension reduction in Bose-Einstein condensates. <i>Computer Physics Communications</i> , 2007, 177, 832-850.	3.0	15
92	Vortex patterns and the critical rotational frequency in rotating dipolar Bose-Einstein condensates. <i>Physical Review A</i> , 2018, 98, .	1.0	15
93	Singular Limits of Klein-Gordon-Schrödinger Equations to Schrödinger-Yukawa Equations. <i>Multiscale Modeling and Simulation</i> , 2010, 8, 1742-1769.	0.6	14
94	Subdiffusive spreading of a Bose-Einstein condensate in random potentials. <i>Physical Review A</i> , 2012, 86, .	1.0	14
95	Dimension Reduction of the Schrödinger Equation with Coulomb and Anisotropic Confining Potentials. <i>SIAM Journal on Applied Mathematics</i> , 2013, 73, 2100-2123.	0.8	14
96	Numerical Study of Quantized Vortex Interactions in the Nonlinear Schrödinger Equation on Bounded Domains. <i>Multiscale Modeling and Simulation</i> , 2014, 12, 411-439.	0.6	14
97	A fourth-order compact time-splitting Fourier pseudospectral method for the Dirac equation. <i>Research in Mathematical Sciences</i> , 2019, 6, 1.	0.5	14
98	Application of Onsager's variational principle to the dynamics of a solid toroidal island on a substrate. <i>Acta Materialia</i> , 2019, 163, 154-160.	3.8	14
99	An economical finite element approximation of generalized Newtonian flows. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2002, 191, 3637-3648.	3.4	13
100	An efficient and accurate MPI-based parallel simulator for streamer discharges in three dimensions. <i>Journal of Computational Physics</i> , 2020, 401, 109026.	1.9	13
101	Super-resolution of time-splitting methods for the Dirac equation in the nonrelativistic regime. <i>Mathematics of Computation</i> , 2020, 89, 2141-2173.	1.1	13
102	An energy-stable parametric finite element method for simulating solid-state dewetting. <i>IMA Journal of Numerical Analysis</i> , 2021, 41, 2026-2055.	1.5	13
103	Scattering and bound states in two-dimensional anisotropic potentials. <i>Physical Review A</i> , 2011, 84, .	1.0	12
104	An energy-stable parametric finite element method for anisotropic surface diffusion. <i>Journal of Computational Physics</i> , 2021, 446, 110658.	1.9	11
105	Error estimates for the finite element approximation of linear elastic equations in an unbounded domain. <i>Mathematics of Computation</i> , 2000, 70, 1437-1460.	1.1	10
106	Numerical Study of Quantized Vortex Interaction in the Ginzburg-Landau Equation on Bounded Domains. <i>Communications in Computational Physics</i> , 2013, 14, 819-850.	0.7	10
107	Controlling fingering instabilities in Hele-Shaw flows in the presence of wetting film effects. <i>Physical Review E</i> , 2021, 103, 063105.	0.8	10
108	Volume-preserving parametric finite element methods for axisymmetric geometric evolution equations. <i>Journal of Computational Physics</i> , 2022, 460, 111180.	1.9	10

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109	Nonlocal Artificial Boundary Conditions for the Incompressible Viscous Flow in a Channel Using Spectral Techniques. <i>Journal of Computational Physics</i> , 1996, 126, 52-63.	1.9	9
110	The discrete artificial boundary condition on a polygonal artificial boundary for the exterior problem of Poisson equation by using the direct method of lines. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1999, 179, 345-360.	3.4	9
111	The direct method of lines for the problem of infinite elastic foundation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1999, 175, 157-173.	3.4	9
112	Uniform Error Bounds of Time-Splitting Methods for the Nonlinear Dirac Equation in the Nonrelativistic Regime without Magnetic Potential. <i>SIAM Journal on Numerical Analysis</i> , 2021, 59, 1040-1066.	1.1	9
113	Artificial boundary conditions for incompressible Navier–Stokes equations: A well-posed result. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2000, 188, 595-611.	3.4	8
114	Weakly compressible high-order l-stable central difference schemes for incompressible viscous flows. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2001, 190, 5009-5026.	3.4	8
115	Error bounds for the finite element approximation of an incompressible material in an unbounded domain. <i>Numerische Mathematik</i> , 2003, 93, 415-444.	0.9	8
116	Continuous configuration time-dependent self-consistent field method for polyatomic quantum dynamical problems. <i>Journal of Chemical Physics</i> , 2005, 122, 091101.	1.2	8
117	Effective dipole-dipole interactions in multilayered dipolar Bose-Einstein condensates. <i>Physical Review A</i> , 2013, 88, .	1.0	8
118	Solid-state dewetting on curved substrates. <i>Physical Review Materials</i> , 2018, 2, .	0.9	8
119	Numerical simulations of fracture problems by coupling the FEM and the direct method of lines. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2001, 190, 4831-4846.	3.4	7
120	Approximation and comparison for motion by mean curvature with intersection points. <i>Computers and Mathematics With Applications</i> , 2003, 46, 1211-1228.	1.4	7
121	Quantized vortex stability and interaction in the nonlinear wave equation. <i>Physica D: Nonlinear Phenomena</i> , 2008, 237, 2391-2410.	1.3	7
122	Self-trapping of Bose-Einstein condensates expanding into shallow optical lattices. <i>Physical Review A</i> , 2008, 77, .	1.0	7
123	Mean-field regime and Thomas–Fermi approximations of trapped Bose–Einstein condensates with higher-order interactions in one and two dimensions. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 125304.	0.6	7
124	Triple junction drag effects during topological changes in the evolution of polycrystalline microstructures. <i>Acta Materialia</i> , 2017, 128, 345-350.	3.8	7
125	Error estimates of local energy regularization for the logarithmic Schrödinger equation. <i>Mathematical Models and Methods in Applied Sciences</i> , 2022, 32, 101-136.	1.7	7
126	The random projection method for a model problem of combustion with stiff chemical reactions. <i>Applied Mathematics and Computation</i> , 2002, 130, 561-571.	1.4	6

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127	Collective synchronization of the multi-component Gross-Pitaevskii-Lohe system. <i>Physica D: Nonlinear Phenomena</i> , 2019, 400, 132158.	1.3	6
128	Quantum kinetic theory: modelling and numerics for Bose-Einstein condensation. <i>Modeling and Simulation in Science, Engineering and Technology</i> , 2004, , 287-320.	0.4	6
129	Uniform error estimates of a finite difference method for the Klein-Gordon-Schrödinger system in the nonrelativistic and massless limit regimes. <i>Kinetic and Related Models</i> , 2018, 11, 1037-1062.	0.5	6
130	The artificial boundary conditions for computing the flow around a submerged body. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2000, 188, 473-482.	3.4	5
131	Computing Ground States of Bose-Einstein Condensates with Higher Order Interaction via a Regularized Density Function Formulation. <i>SIAM Journal of Scientific Computing</i> , 2019, 41, B1284-B1309.	1.3	5
132	Ground states of Bose-Einstein condensates with higher order interaction. <i>Physica D: Nonlinear Phenomena</i> , 2019, 386-387, 38-48.	1.3	5
133	Error estimates on the random projection methods for hyperbolic conservation laws with stiff reaction terms. <i>Applied Numerical Mathematics</i> , 2002, 43, 315-333.	1.2	4
134	Dimension reduction for anisotropic Bose-Einstein condensates in the strong interaction regime. <i>Nonlinearity</i> , 2015, 28, 755-772.	0.6	4
135	Mechanical transduction via a single soft polymer. <i>Physical Review E</i> , 2018, 97, 042504.	0.8	4
136	A Jacobi spectral method for computing eigenvalue gaps and their distribution statistics of the fractional Schrödinger operator. <i>Journal of Computational Physics</i> , 2020, 421, 109733.	1.9	4
137	Dimension reduction for dipolar Bose-Einstein condensates in the strong interaction regime. <i>Kinetic and Related Models</i> , 2017, 10, 553-571.	0.5	4
138	Artificial boundary conditions for two-dimensional incompressible viscous flows around an obstacle. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1997, 147, 263-273.	3.4	3
139	Error bounds for the finite-element approximation of the exterior Stokes equations in two dimensions. <i>IMA Journal of Numerical Analysis</i> , 2003, 23, 125-148.	1.5	3
140	The Kinematic Effects of the Defects in Liquid Crystal Dynamics. <i>Communications in Computational Physics</i> , 2016, 20, 234-249.	0.7	3
141	Ground states and dynamics of rotating Bose-Einstein condensates. , 2007, , 215-255.		3
142	Fundamental gaps of the fractional Schrödinger operator. <i>Communications in Mathematical Sciences</i> , 2019, 17, 447-471.	0.5	3
143	Polymer-Based Accurate Positioning: An Exact Worm-like-Chain Study. <i>ACS Omega</i> , 2018, 3, 14318-14326.	1.6	2
144	Accurate and efficient calculation of photoionization in streamer discharges using fast multipole method. <i>Plasma Sources Science and Technology</i> , 2020, 29, 125010.	1.3	2

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145	Fundamental gaps of the Grossâ€Pitaevskii equation with repulsive interaction. Asymptotic Analysis, 2018, 110, 53-82.	0.2	1
146	The Random Projection Method for Stiff Multi-species Detonation Computation. , 2001, , 139-148.		0
147	Preface: Special Issue Dedicated to Professor Eitan Tadmor's 60th Birthday. Communications in Computational Physics, 2016, 19, i-iii.	0.7	0