Shi Jin

List of Publications by Year
in descending order

174 papers	6,368 citations	87888 38 h-index	76900 74 g-index
175 all docs	175 docs citations	175 times ranked	1717 citing authors

#	Article	IF	Citations
1	On the mean field limit of the Random Batch Method for interacting particle systems. Science China Mathematics, 2022, 65, 169-202.	1.7	6
2	Accurate and efficient simulations of Hamiltonian mechanical systems with discontinuous potentials. Journal of Computational Physics, 2022, 450, 110846.	3.8	2
3	Superscalability of the random batch Ewald method. Journal of Chemical Physics, 2022, 156, 014114.	3.0	14
4	The Vlasovâ€“Fokkerâ€“Planck equation with high dimensional parametric forcing term. Numerische Mathematik, 2022, 150, 479-519.	1.9	4
5	A spatial-temporal asymptotic preserving scheme for radiation magnetohydrodynamics in the equilibrium and non-equilibrium diffusion limit. Journal of Computational Physics, 2022, 452, 110895.	3.8	3
6	Random Batch Methods for Classical and Quantum Interacting Particle Systems and Statistical Samplings. Modeling and Simulation in Science, Engineering and Technology, 2022, , 153-200.	0.6	5
7	Asymptotic-preserving schemes for multiscale physical problems. Acta Numerica, 2022, 31, 415-489.	10.7	20
8	On the Random Batch Method for Second Order Interacting Particle Systems. Multiscale Modeling and Simulation, 2022, 20, 741-768.	1.6	2
9	On the Convergence of Time Splitting Methods for Quantum Dynamics in the Semiclassical Regime. Foundations of Computational Mathematics, 2021, 21, 613-647.	2.5	10
10	Collective Dynamics of Opposing Groups with Stochastic Communication. Vietnam Journal of Mathematics, 2021, 49, 619-636.	0.8	0
11	Convergence of the Random Batch Method for Interacting Particles with Disparate Species and Weights. SIAM Journal on Numerical Analysis, 2021, 59, 746-768.	2.3	21
12	Convergence and error estimates for time-discrete consensus-based optimization algorithms. Numerische Mathematik, 2021, 147, 255-282.	1.9	12
13	A Random Batch Ewald Method for Particle Systems with Coulomb Interactions. SIAM Journal of Scientific Computing, 2021, 43, B937-B960.	2.8	22
14	Uniform error estimates for the random batch method to the firstâ€•order consensus models with antisymmetric interaction kernels. Studies in Applied Mathematics, 2021, 146, 983-1022.	2.4	5
15	Uniform-in-time error estimate of the random batch method for the Cuckerâ€“Smale model. Mathematical Models and Methods in Applied Sciences, 2021, 31, 1099-1135.	3.3	5
16	On the multi-species Boltzmann equation with uncertainty and its stochastic Galerkin approximation. ESAIM: Mathematical Modelling and Numerical Analysis, 2021, 55, 1323-1345.	1.9	2
17	Convergence toward equilibrium of the first-order consensus model with random batch interactions. Journal of Differential Equations, 2021, 302, 585-616.	2.2	6
18	A consensus-based global optimization method for high dimensional machine learning problems. ESAIM - Control, Optimisation and Calculus of Variations, 2021, 27, S5.	1.3	39

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19	Random Batch Methods (RBM) for interacting particle systems. Journal of Computational Physics, 2020, 400, 108877.	3.8	62
20	A local sensitivity analysis for the hydrodynamic Cucker-Smale model with random inputs. Journal of Differential Equations, 2020, 268, 636-679.	2.2	2
21	Sharp decay estimates in local sensitivity analysis for evolution equations with uncertainties: From ODEs to linear kinetic equations. Journal of Differential Equations, 2020, 268, 1156-1204.	2.2	7
22	Gaussian wave packet transform based numerical scheme for the semi-classical SchrÃ¶dinger equation with random inputs. Journal of Computational Physics, 2020, 401, 109015.	3.8	3
23	Moving-Water Equilibria Preserving Partial Relaxation Scheme for the Saint-Venant System. SIAM Journal of Scientific Computing, 2020, 42, A2206-A2229.	2.8	6
24	Convergence of a first-order consensus-based global optimization algorithm. Mathematical Models and Methods in Applied Sciences, 2020, 30, 2417-2444.	3.3	31
25	A Micro-Macro Method for a Kinetic Graphene Model in One Space Dimension. Multiscale Modeling and Simulation, 2020, 18, 444-474.	1.6	0
26	Local Sensitivity Analysis for the Kuramoto--Daido Model with Random Inputs in a Large Coupling Regime. SIAM Journal on Mathematical Analysis, 2020, 52, 2000-2040.	1.9	2
27	A study of Landau damping with random initial inputs. Journal of Differential Equations, 2019, 266, 1922-1945.	2.2	6
28	A Study of Hyperbolicity of Kinetic Stochastic Galerkin System for the Isentropic Euler Equations with Uncertainty. Chinese Annals of Mathematics Series B, 2019, 40, 765-780.	0.4	10
29	On stochastic Galerkin approximation of the nonlinear Boltzmann equation with uncertainty in the fluid regime. Journal of Computational Physics, 2019, 397, 108838.	3.8	9
30	Emergent behaviors of the Cuckerâ€“Smale ensemble under attractiveâ€“repulsive couplings and Rayleigh frictions. Mathematical Models and Methods in Applied Sciences, 2019, 29, 1349-1385.	3.3	16
31	Micro-macro decomposition based asymptotic-preserving numerical schemes and numerical moments conservation for collisional nonlinear kinetic equations. Journal of Computational Physics, 2019, 382, 264-290.	3.8	8
32	MATHEMATICAL ANALYSIS AND NUMERICAL METHODS FOR MULTISCALE KINETIC EQUATIONS WITH UNCERTAINTIES. , 2019, , .		2
33	Efficient Stochastic Asymptotic-Preserving Implicit-Explicit Methods for Transport Equations with Diffusive Scalings and Random Inputs. SIAM Journal of Scientific Computing, 2018, 40, A671-A696.	2.8	17
34	Hypocoercivity and Uniform Regularity for the Vlasov--Poisson--Fokker--Planck System with Uncertainty and Multiple Scales. SIAM Journal on Mathematical Analysis, 2018, 50, 1790-1816.	1.9	24
35	The Discrete Stochastic Galerkin Method for Hyperbolic Equations with Non-smooth and Random Coefficients. Journal of Scientific Computing, 2018, 74, 97-121.	2.3	3
36	A High Order Stochastic Asymptotic Preserving Scheme for Chemotaxis Kinetic Models with Random Inputs. Multiscale Modeling and Simulation, 2018, 16, 1884-1915.	1.6	4

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37	Uniform regularity in the random space and spectral accuracy of the stochastic Galerkin method for a kinetic-fluid two-phase flow model with random initial inputs in the light particle regime. ESAIM: Mathematical Modelling and Numerical Analysis, 2018, 52, 1651-1678.	1.9	8
38	Quantum hydrodynamic approximations to the finite temperature trapped Bose gases. Physica D: Nonlinear Phenomena, 2018, 380-381, 45-57.	2.8	5
39	An Efficient Time-splitting Method for the Ehrenfest Dynamics. Multiscale Modeling and Simulation, 2018, 16, 900-921.	1.6	9
40	Hypocoercivity Based Sensitivity Analysis and Spectral Convergence of the Stochastic Galerkin Approximation to Collisional Kinetic Equations with Multiple Scales and Random Inputs. Multiscale Modeling and Simulation, 2018, 16, 1085-1114.	1.6	24
41	A local sensitivity analysis for the kinetic Cuckerâ€“Smale equation with random inputs. Journal of Differential Equations, 2018, 265, 3618-3649.	2.2	9
42	A Stochastic Galerkin Method for the Fokkerâ€“Planckâ€“Landau Equation with Random Uncertainties. Springer Proceedings in Mathematics and Statistics, 2018, , 1-19.	0.2	3
43	A stochastic asymptotic-preserving scheme for a kinetic-fluid model for disperse two-phase flows with uncertainty. Journal of Computational Physics, 2017, 335, 905-924.	3.8	12
44	The Landau-Zener Transition and the Surface Hopping Method for the 2D Dirac Equation for Graphene. Communications in Computational Physics, 2017, 21, 313-357.	1.7	4
45	A Stochastic Galerkin Method for the Boltzmann Equation with Multi-Dimensional Random Inputs Using Sparse Wavelet Bases. Numerical Mathematics, 2017, 10, 465-488.	1.3	25
46	An Asymptotic-Preserving Stochastic Galerkin Method for the Semiconductor Boltzmann Equation with Random Inputs and Diffusive Scalings. Multiscale Modeling and Simulation, 2017, 15, 157-183.	1.6	29
47	An asymptotic-preserving stochastic Galerkin method for the radiative heat transfer equations with random inputs and diffusive scalings. Journal of Computational Physics, 2017, 334, 182-206.	3.8	20
48	Nonlinear geometric optics method-based multi-scale numerical schemes for a class of highly oscillatory transport equations. Mathematical Models and Methods in Applied Sciences, 2017, 27, 2031-2070.	3.3	11
49	The Vlasov–Poisson–Fokker–Planck System with Uncertainty and a One-dimensional Asymptotic Preserving Method. Multiscale Modeling and Simulation, 2017, 15, 1502-1529.	1.6	28
50	Entropic sub-cell shock capturing schemes via Jin-Xin relaxation and Glimm front sampling for scalar conservation laws. Mathematics of Computation, 2017, 87, 1083-1126.	2.1	3
51	Uniform spectral convergence of the stochastic Galerkin method for the linear transport equations with random inputs in diffusive regime and a microâ€“macro decomposition-based asymptotic-preserving method. Research in Mathematical Sciences, 2017, 4, 1.	1.0	27
52	Uncertainty Quantification for Kinetic Equations. SEMA SIMAI Springer Series, 2017, , 193-229.	0.7	12
53	On the classical limit of a time-dependent self-consistent field system: Analysis and computation. Kinetic and Related Models, 2017, 10, 263-298.	0.9	9
54	An asymptotic preserving Monte Carlo method for the multispecies Boltzmann equation. Journal of Computational Physics, 2016, 305, 575-588.	3.8	28

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55	A stochastic Galerkin method for the Boltzmann equation with uncertainty. Journal of Computational Physics, 2016, 315, 150-168.	3.8	55
56	A Well-Balanced Stochastic Galerkin Method for Scalar Hyperbolic Balance Laws with Random Inputs. Journal of Scientific Computing, 2016, 67, 1198-1218.	2.3	18
57	An Asymptotic Preserving Two-dimensional Staggered Grid Method for Multiscale Transport Equations. SIAM Journal on Numerical Analysis, 2016, 54, 440-461.	2.3	8
58	A Multiband Semiclassical Model for Surface Hopping Quantum Dynamics. Multiscale Modeling and Simulation, 2015, 13, 205-230.	1.6	15
59	SchrÃ¶dinger Equation: Computation. , 2015, , 1299-1301.		0
60	Asymptotic-preserving methods for hyperbolic and transport equations with random inputs and diffusive scalings. Journal of Computational Physics, 2015, 289, 35-52.	3.8	47
61	A Stochastic Galerkin Method for Hamilton–Jacobi Equations with Uncertainty. SIAM Journal of Scientific Computing, 2015, 37, A2246-A2269.	2.8	17
62	A Gaussian Beam Method for High Frequency Solution of Symmetric Hyperbolic Systems with Polarized Waves. Multiscale Modeling and Simulation, 2015, 13, 733-765.	1.6	4
63	An asymptotic-preserving scheme for the semiconductor Boltzmann equation with two-scale collisions: A splitting approach. Kinetic and Related Models, 2015, 8, 707-723.	0.9	7
64	Computing high frequency solutions of symmetric hyperbolic systems with polarized waves. Communications in Mathematical Sciences, 2015, 13, 1001-1024.	1.0	1
65	Well-Posedness and Singular Limit of a Semilinear Hyperbolic Relaxation System with a Two-Scale Discontinuous Relaxation Rate. Archive for Rational Mechanics and Analysis, 2014, 214, 1051-1084.	2.4	9
66	Nonequilibrium hypersonic flows simulations with asymptotic-preserving Monte Carlo methods. , 2014, , .		0
67	An asymptotic-preserving Monte Carlo method for the Boltzmann equation. Journal of Computational Physics, 2014, 276, 380-404.	3.8	38
68	Gaussian beam methods for the SchrÃ¶dinger equation with discontinuous potentials. Journal of Computational and Applied Mathematics, 2014, 265, 199-219.	2.0	11
69	Asymptoticâ€preserving schemes for kineticâ€“fluid modeling of disperse twoâ€phase flows with variable fluid density. International Journal for Numerical Methods in Fluids, 2014, 75, 81-102.	1.6	6
70	Asymptotic-preserving schemes for kinetic-fluid modeling of disperse two-phase flows. Journal of Computational Physics, 2013, 246, 145-164.	3.8	12
71	l 1-error estimates on the immersed interface upwind scheme for linear convection equations with piecewise constant coefficients: A simple proof. Science China Mathematics, 2013, 56, 2773-2782.	1.7	2
72	A Successive Penalty-Based Asymptotic-Preserving Scheme for Kinetic Equations. SIAM Journal of Scientific Computing, 2013, 35, A150-A172.	2.8	19

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73	A BGKâ€penalizationâ€based asymptoticâ€preserving scheme for the multispecies Boltzmann equation. Numerical Methods for Partial Differential Equations, 2013, 29, 1056-1080.	3.6	17
74	Asymptotic-Preserving Numerical Schemes for the Semiconductor Boltzmann Equation Efficient in the High Field Regime. SIAM Journal of Scientific Computing, 2013, 35, B799-B819.	2.8	11
75	The Gaussian beam method for the wigner equation with discontinuous potentials. Inverse Problems and Imaging, 2013, 7, 1051-1074.	1.1	3
76	Semi-classical models for the SchrÃ¶dinger equation with periodic potentials and band crossings. Kinetic and Related Models, 2013, 6, 505-532.	0.9	7
77	A semi-Lagrangian time splitting method for the SchrÃ¶dinger equation with vector potentials. Communications in Information and Systems, 2013, 13, 247-289.	0.5	11
78	An All-Speed Asymptotic-Preserving Method for the Isentropic Euler and Navier-Stokes Equations. Communications in Computational Physics, 2012, 12, 955-980.	1.7	90
79	A Numerical Scheme for the Quantum Fokker-Planck-Landau Equation Efficient in the Fluid Regime. Communications in Computational Physics, 2012, 12, 1541-1561.	1.7	13
80	A numerical scheme for the quantum Boltzmann equation with stiff collision terms. ESAIM: Mathematical Modelling and Numerical Analysis, 2012, 46, 443-463.	1.9	32
81	A Particle Method for the Semiclassical Limit of the SchrÃ¶dinger Equation and the Vlasov--Poisson Equations. SIAM Journal on Numerical Analysis, 2012, 50, 3259-3279.	2.3	1
82	Simulation of fluidâ€“particles flows: heavy particles, flowing regime, and asymptotic-preserving schemes. Communications in Mathematical Sciences, 2012, 10, 355-385.	1.0	10
83	Gaussian beam methods for the Dirac equation in the semi-classical regime. Communications in Mathematical Sciences, 2012, 10, 1301-1315.	1.0	23
84	An Eulerian Surface Hopping Method for the SchrÃ¶dinger Equation with Conical Crossings. Multiscale Modeling and Simulation, 2011, 9, 258-281.	1.6	15
85	An asymptotic preserving scheme for the vlasov-poisson-fokker-planck system in the high field regime. Acta Mathematica Scientia, 2011, 31, 2219-2232.	1.0	21
86	An Asymptotic Preserving Scheme for the ES-BGK Model of the Boltzmann Equation. Journal of Scientific Computing, 2011, 46, 204-224.	2.3	55
87	A class of asymptotic-preserving schemes for the Fokkerâ€“Planckâ€“Landau equation. Journal of Computational Physics, 2011, 230, 6420-6437.	3.8	41
88	Semi-Eulerian and High Order Gaussian Beam Methods for the SchrÃ¶dinger Equation in the Semiclassical Regime. Communications in Computational Physics, 2011, 9, 668-687.	1.7	18
89	Mathematical and computational methods for semiclassical SchrÃ¶dinger equations. Acta Numerica, 2011, 20, 121-209.	10.7	107
90	A hybrid SchrÃ¶dinger/Gaussian beam solver for quantum barriers and surface hopping. Kinetic and Related Models, 2011, 4, 1097-1120.	0.9	5

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91	Computational high frequency wave diffraction by a corner via the Liouville equation and geometric theory of diffraction. Kinetic and Related Models, 2011, 4, 295-316.	0.9	6
92	On kinetic flux vector splitting schemes for quantum Euler equations. Kinetic and Related Models, 2011, 4, 517-530.	0.9	13
93	A level set method for the semiclassical limit of the SchrÃ¶dinger equation with discontinuous potentials. Journal of Computational Physics, 2010, 229, 7440-7455.	3.8	5
94	Bloch decomposition-based Gaussian beam method for the SchrÃ¶dinger equation with periodic potentials. Journal of Computational Physics, 2010, 229, 4869-4883.	3.8	23
95	A class of asymptotic-preserving schemes for kinetic equations and related problems with stiff sources. Journal of Computational Physics, 2010, 229, 7625-7648.	3.8	236
96	The Gaussian Beam Methods for SchrÃ¶dinger-Poisson Equations. Journal of Computational Mathematics, 2010, 28, 261-272.	0.4	14
97	A Micro-Macro Decomposition-Based Asymptotic-Preserving Scheme for the Multispecies Boltzmann Equation. SIAM Journal of Scientific Computing, 2010, 31, 4580-4606.	2.8	19
98	A coherent semiclassical transport model for pure-state quantum scattering. Communications in Mathematical Sciences, 2010, 8, 253-275.	1.0	9
99	Bloch Decomposition-Based Method for High Frequency Waves in Periodic Media. Series in Contemporary Applied Mathematics, 2010, , 161-188.	0.8	0
100	On the Bloch decomposition based spectral method for wave propagation in periodic media. Wave Motion, 2009, 46, 15-28.	2.0	8
101	A Hybrid Phase-Flow Method for Hamiltonian Systems with Discontinuous Hamiltonians. SIAM Journal of Scientific Computing, 2009, 31, 1303-1321.	2.8	11
102	Recent Computational Methods for High Frequency Waves in Heterogeneous Media. Series in Contemporary Applied Mathematics, 2009, , 49-64.	0.8	4
103	Computational high frequency waves through curved interfaces via the Liouville equation and geometric theory of diffraction. Journal of Computational Physics, 2008, 227, 6106-6139.	3.8	24
104	Computation of the Semiclassical Limit of the SchrÃ¶dinger Equation with Phase Shift by a Level Set Method. Journal of Scientific Computing, 2008, 35, 144-169.	2.3	12
105	Computation of Interface Reflection and Regular or Diffuse Transmission of the Planar Symmetric Radiative Transfer Equation with Isotropic Scattering and Its Diffusion Limit. SIAM Journal of Scientific Computing, 2008, 30, 1992-2017.	2.8	6
106	Numerical Simulation of the Nonlinear SchrÃ¶dinger Equation with Multidimensional Periodic Potentials. Multiscale Modeling and Simulation, 2008, 7, 539-564.	1.6	15
107	The ${l}^1$-Error Estimates for a Hamiltonian-Preserving Scheme for the Liouville Equation with Piecewise Constant Potentials. SIAM Journal on Numerical Analysis, 2008, 46, 2688-2714.	2.3	10
108	On the Time Splitting Spectral Method for the Complex Ginzburgâ€“Landau Equation in the Large Time and Space Scale Limit. SIAM Journal of Scientific Computing, 2008, 30, 2466-2487.	2.8	30

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109	THE VLASOVâ€“POISSON EQUATIONS AS THE SEMICLASSICAL LIMIT OF THE SCHRÃ–DINGERâ€“POISSON EQUATIONS: A NUMERICAL STUDY. Journal of Hyperbolic Differential Equations, 2008, 05, 569-587.	0.5	5
110	A domain decomposition method for a two-scale transport equation with energy flux conserved at the interface. Kinetic and Related Models, 2008, 1, 65-84.	0.9	5
111	A Bloch Decompositionâ€“Based Splitâ€Step Pseudospectral Method for Quantum Dynamics with Periodic Potentials. SIAM Journal of Scientific Computing, 2007, 29, 515-538.	2.8	20
112	A semiclassical transport model for two-dimensional thin quantum barriers. Journal of Computational Physics, 2007, 226, 1623-1644.	3.8	13
113	A Semiclassical Transport Model for Thin Quantum Barriers. Multiscale Modeling and Simulation, 2006, 5, 1063-1086.	1.6	17
114	A Hamiltonianâ€Preserving Scheme for the Liouville Equation of Geometrical Optics with Partial Transmissions and Reflections. SIAM Journal on Numerical Analysis, 2006, 44, 1801-1828.	2.3	38
115	Computation of transmissions and reflections in geometrical optics via the reduced Liouville equation. Wave Motion, 2006, 43, 667-688.	2.0	14
116	A Time-Splitting Spectral Method for the Generalized Zakharov System in Multi-Dimensions. Journal of Scientific Computing, 2006, 26, 127-149.	2.3	14
117	Hamiltonian-preserving schemes for the Liouville equation of geometrical optics with discontinuous local wave speeds. Journal of Computational Physics, 2006, 214, 672-697.	3.8	33
118	A HAMILTONIAN-PRESERVING SCHEME FOR HIGH FREQUENCY ELASTIC WAVES IN HETEROGENEOUS MEDIA. Journal of Hyperbolic Differential Equations, 2006, 03, 741-777.	0.5	22
119	A time-splitting spectral scheme for the Maxwellâ€“Dirac system. Journal of Computational Physics, 2005, 208, 761-789.	3.8	64
120	A smooth transition model between kinetic and hydrodynamic equations. Journal of Computational Physics, 2005, 209, 665-694.	3.8	67
121	Computing multi-valued physical observables for the high frequency limit of symmetric hyperbolic systems. Journal of Computational Physics, 2005, 210, 497-518.	3.8	35
122	Computing multivalued physical observables for the semiclassical limit of the SchrÃ¶dinger equation. Journal of Computational Physics, 2005, 205, 222-241.	3.8	59
123	A Smooth Transition Model between Kinetic and Diffusion Equations. SIAM Journal on Numerical Analysis, 2005, 42, 2671-2687.	2.3	43
124	Two Interface-Type Numerical Methods for Computing Hyperbolic Systems with Geometrical Source Terms Having Concentrations. SIAM Journal of Scientific Computing, 2005, 26, 2079-2101.	2.8	49
125	Hamiltonian-Preserving Schemes for the Liouville Equation with Discontinuous Potentials. Communications in Mathematical Sciences, 2005, 3, 285-315.	1.0	46
126	Numerical simulation of a generalized Zakharov system. Journal of Computational Physics, 2004, 201, 376-395.	3.8	58

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127	Eulerian method for computing multivalued solutions of the Euler-Poisson equations and applications to wave breaking in klystrons. Physical Review E, 2004, 70, 016502.	2.1	24
128	Robust numerical simulation of porosity evolution in chemical vapor infiltration III: three space dimension. Journal of Computational Physics, 2003, 186, 582-595.	3.8	15
129	Wave patterns, stability, and slow motions in inviscid and viscous hyperbolic equations with stiff reaction terms. Journal of Differential Equations, 2003, 189, 267-291.	2.2	5
130	Multi-phase computations of the semiclassical limit of the SchrÃ¶dinger equation and related problems: Whitham vs Wigner. Physica D: Nonlinear Phenomena, 2003, 182, 46-85.	2.8	70
131	Numerical Study of Time-Splitting Spectral Discretizations of Nonlinear SchrÃ¶dinger Equations in the Semiclassical Regimes. SIAM Journal of Scientific Computing, 2003, 25, 27-64.	2.8	167
132	Numerical Approximations of Pressureless and Isothermal Gas Dynamics. SIAM Journal on Numerical Analysis, 2003, 41, 135-158.	2.3	89
133	High Frequency Behavior of the Focusing Nonlinear SchrÃ¶dinger Equation with Random Inhomogeneities. SIAM Journal on Applied Mathematics, 2003, 63, 1328-1358.	1.8	11
134	TWO MOMENT SYSTEMS FOR COMPUTING MULTIPHASE SEMICLASSICAL LIMITS OF THE SCHRÃ–DINGER EQUATION. Mathematical Models and Methods in Applied Sciences, 2003, 13, 1689-1723.	3.3	49
135	A Domain Decomposition Analysis for a Two-Scale Linear Transport Problem. ESAIM: Mathematical Modelling and Numerical Analysis, 2003, 37, 869-892.	1.9	33
136	Front motion in multi-dimensional viscous conservation laws with stiff source terms driven by mean curvature and variation of front thickness. Quarterly of Applied Mathematics, 2003, 61, 701-721.	0.7	3
137	A level set method for the computation of multi-valued solutions to quasi-linear hyperbolic PDE's and Hamilton-Jacobi equations. Communications in Mathematical Sciences, 2003, 1, 575-591.	1.0	67
138	On Time-Splitting Spectral Approximations for the SchrÃ¶dinger Equation in the Semiclassical Regime. Journal of Computational Physics, 2002, 175, 487-524.	3.8	318
139	The Random Projection Method for Stiff Multispecies Detonation Capturing. Journal of Computational Physics, 2002, 178, 37-57.	3.8	20
140	Robust Numerical Simulation of Porosity Evolution in Chemical Vapor Infiltration. Journal of Computational Physics, 2002, 179, 557-577.	3.8	23
141	A Relaxation Scheme for Solving the Boltzmann Equation Based on the Chapman-Enskog Expansion. Acta Mathematicae Applicatae Sinica, 2002, 18, 37-62.	0.7	23
142	Error estimates on the random projection methods for hyperbolic conservation laws with stiff reaction terms. Applied Numerical Mathematics, 2002, 43, 315-333.	2.1	4
143	The Random Projection Method for Stiff Detonation Capturing. SIAM Journal of Scientific Computing, 2001, 23, 1000-1026.	2.8	16
144	A steady-state capturing method for hyperbolic systems with geometrical source terms. ESAIM: Mathematical Modelling and Numerical Analysis, 2001, 35, 631-645.	1.9	145

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145	Regularization of the Burnett equations for rapid granular flows via relaxation. Physica D: Nonlinear Phenomena, 2001, 150, 207-218.	2.8	24
146	Regularization of the Burnett Equations via Relaxation. Journal of Statistical Physics, 2001, 103, 1009-1033.	1.2	109
147	Asymptotic-Preserving (Ap) Schemes for Multiscale Kinetic Equations: a Unified Approach. , 2001, , 573-582.		9
148	The Random Projection Method for Stiff Multi-species Detonation Computation. , 2001, , 139-148.		0
149	A diffusive subcharacteristic condition for hyperbolic systems with diffusive relaxation. Transport Theory and Statistical Physics, 2000, 29, 583-593.	0.4	5
150	Discretization of the Multiscale Semiconductor Boltzmann Equation by Diffusive Relaxation Schemes. Journal of Computational Physics, 2000, 161, 312-330.	3.8	44
151	Robust Numerical Simulation of Porosity Evolution in Chemical Vapor Infiltration I: Two Space Dimension. Journal of Computational Physics, 2000, 162, 467-482.	3.8	13
152	The Random Projection Method for Hyperbolic Conservation Laws with Stiff Reaction Terms. Journal of Computational Physics, 2000, 163, 216-248.	3.8	62
153	Zero Reaction Limit for Hyperbolic Conservation Laws with Source Terms. Journal of Differential Equations, 2000, 168, 270-294.	2.2	21
154	Hyperbolic Systems with Supercharacteristic Relaxations and Roll Waves. SIAM Journal on Applied Mathematics, 2000, 61, 273-292.	1.8	19
155	Uniformly Accurate Diffusive Relaxation Schemes for Multiscale Transport Equations. SIAM Journal on Numerical Analysis, 2000, 38, 913-936.	2.3	152
156	The Convergence of Numerical Transfer Schemes in Diffusive Regimes I: Discrete-Ordinate Method. SIAM Journal on Numerical Analysis, 1999, 36, 1333-1369.	2.3	73
157	Relaxation schemes for curvature-dependent front propagation. , 1999, 52, 1587-1615.		8
158	Efficient Asymptotic-Preserving (AP) Schemes For Some Multiscale Kinetic Equations. SIAM Journal of Scientific Computing, 1999, 21, 441-454.	2.8	358
159	A model for front evolution with a nonlocal growth rate. Journal of Materials Research, 1999, 14, 3829-3832.	2.6	11
160	Numerical Passage from Systems of Conservation Laws to Hamilton–Jacobi Equations, and Relaxation Schemes. SIAM Journal on Numerical Analysis, 1998, 35, 2385-2404.	2.3	88
161	Diffusive Relaxation Schemes for Multiscale Discrete-Velocity Kinetic Equations. SIAM Journal on Numerical Analysis, 1998, 35, 2405-2439.	2.3	140
162	Application of Relaxation Scheme to Wave-Propagation Simulation in Open-Channel Networks. Journal of Hydraulic Engineering, 1998, 124, 1125-1133.	1.5	27

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163	Diffusion limit of a hyperbolic system with relaxation. Methods and Applications of Analysis, 1998, 5, 317-334.	0.5	13
164	Physical symmetry and lattice symmetry in the lattice Boltzmann method. Physical Review E, 1997, 55, R21-R24.	2.1	237
165	Uniformly Accurate Schemes for Hyperbolic Systems with Relaxation. SIAM Journal on Numerical Analysis, 1997, 34, 246-281.	2.3	138
166	Relaxation Approximations to Front Propagation. Journal of Differential Equations, 1997, 138, 380-387.	2.2	8
167	The Effects of Numerical Viscosities. Journal of Computational Physics, 1996, 126, 373-389.	3.8	66
168	Numerical Schemes for Hyperbolic Conservation Laws with Stiff Relaxation Terms. Journal of Computational Physics, 1996, 126, 449-467.	3.8	172
169	Runge-Kutta Methods for Hyperbolic Conservation Laws with Stiff Relaxation Terms. Journal of Computational Physics, 1995, 122, 51-67.	3.8	176
170	The relaxation schemes for systems of conservation laws in arbitrary space dimensions. Communications on Pure and Applied Mathematics, 1995, 48, 235-276.	3.1	734
171	Numerical Integrations of Systems of Conservation Laws of Mixed Type. SIAM Journal on Applied Mathematics, 1995, 55, 1536-1551.	1.8	24
172	Fully-discrete numerical transfer in diffusive regimes. Transport Theory and Statistical Physics, 1993, 22, 739-791.	0.4	47
173	The discrete-ordinate method in diffusive regimes. Transport Theory and Statistical Physics, 1991, 20, 413-439.	0.4	51
174	Quantum simulation in the semi-classical regime. Quantum - the Open Journal for Quantum Science, 0, 6, 739.	0.0	5