Yingda Cheng

List of Publications by Year
in descending order

44 papers	999 citations	471371 17 h-index	434063 31 g-index
44 all docs	44 docs citations	44 times ranked	468 citing authors

#	ARTICLE	IF	CITATIONS
1	A discontinuous Galerkin finite element method for time dependent partial differential equations with higher order derivatives. Mathematics of Computation, 2007, 77, 699-731.	1.1	116
2	Superconvergence of Discontinuous Galerkin and Local Discontinuous Galerkin Schemes for Linear Hyperbolic and Convection-Diffusion Equations in One Space Dimension. SIAM Journal on Numerical Analysis, 2010, 47, 4044-4072.	1.1	111
3	Study of conservation and recurrence of Runge–Kutta discontinuous Galerkin schemes for Vlasov–Poisson systems. Journal of Scientific Computing, 2013, 56, 319-349.	1.1	88
4	A discontinuous Galerkin finite element method for directly solving the Hamilton–Jacobi equations. Journal of Computational Physics, 2007, 223, 398-415.	1.9	83
5	A discontinuous Galerkin solver for Boltzmann–Poisson systems in nano devices. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 3130-3150.	3.4	62
6	Superconvergence and time evolution of discontinuous Galerkin finite element solutions. Journal of Computational Physics, 2008, 227, 9612-9627.	1.9	56
7	Discontinuous Galerkin Methods for the Vlasov--Maxwell Equations. SIAM Journal on Numerical Analysis, 2014, 52, 1017-1049.	1.1	46
8	Energy-conserving discontinuous Galerkin methods for the Vlasov–Ampère system. Journal of Computational Physics, 2014, 256, 630-655.	1.9	42
9	Energy-conserving discontinuous Galerkin methods for the Vlasov–Maxwell system. Journal of Computational Physics, 2014, 279, 145-173.	1.9	34
10	Positivity-preserving discontinuous Galerkin schemes for linear Vlasov-Boltzmann transport equations. Mathematics of Computation, 2012, 81, 153-190.	1.1	32
11	A Sparse Grid Discontinuous Galerkin Method for High-Dimensional Transport Equations and Its Application to Kinetic Simulations. SIAM Journal of Scientific Computing, 2016, 38, A3381-A3409.	1.3	32
12	Energy stable discontinuous Galerkin methods for Maxwell's equations in nonlinear optical media. Journal of Computational Physics, 2017, 350, 420-452.	1.9	30
13	Superconvergence of local discontinuous Galerkin methods for one-dimensional convection–diffusion equations. Computers and Structures, 2009, 87, 630-641.	2.4	27
14	A new discontinuous Galerkin finite element method for directly solving the Hamilton–Jacobi equations. Journal of Computational Physics, 2014, 268, 134-153.	1.9	25
15	A brief survey of the discontinuous Galerkin method for the Boltzmann-Poisson equations. Boletín De La Sociedad Española De Matemática Aplicada, 2011, 54, 47-64.	0.9	19
16	Discontinuous Galerkin solver for Boltzmann-Poisson transients. Journal of Computational Electronics, 2008, 7, 119-123.	1.3	18
17	An Adaptive Multiresolution Discontinuous Galerkin Method for Time-Dependent Transport Equations in Multidimensions. SIAM Journal of Scientific Computing, 2017, 39, A2962-A2992.	1.3	18
18	Recovering doping profiles in semiconductor devices with the Boltzmann–Poisson model. Journal of Computational Physics, 2011, 230, 3391-3412.	1.9	17

#	ARTICLE	IF	CITATIONS
19	Numerical study of one-dimensional Vlasov–Poisson equations for infinite homogeneous stellar systems. Communications in Nonlinear Science and Numerical Simulation, 2012, 17, 2052-2061.	1.7	13
20	A discontinuous Galerkin scheme for front propagation with obstacles. Numerische Mathematik, 2014, 126, 1-31.	0.9	13
21	High Spatial Order Energy Stable FDTD Methods for Maxwell's Equations in Nonlinear Optical Media in One Dimension. Journal of Scientific Computing, 2018, 77, 330-371.	1.1	13
22	An Ultra-weak Discontinuous Galerkin Method for Schrödinger Equation in One Dimension. Journal of Scientific Computing, 2019, 78, 772-815.	1.1	12
23	A Particle Interaction Model for the Simulation of Biological, Cross-Linked Fiber Networks Inspired From flocking Theory. Cellular and Molecular Bioengineering, 2014, 7, 58-72.	1.0	9
24	Discontinuous Galerkin Methods with Optimal $$L^2$$ Accuracy for One Dimensional Linear PDEs with High Order Spatial Derivatives. Journal of Scientific Computing, 2019, 78, 816-863.	1.1	9
25	A Discontinuous Galerkin Solver for Full-Band Boltzmann-Poisson Models. , 2009, , .		8
26	A Discontinuous Galerkin Solver for Front Propagation. SIAM Journal of Scientific Computing, 2011, 33, 923-938.	1.3	7
27	Energy Stable SBP-FDTD Methods for Maxwell–Duffing Models in Nonlinear Photonics. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2019, 4, 329-336.	1.4	7
28	Energy Stable Nodal Discontinuous Galerkin Methods for Nonlinear Maxwell's Equations in Multi-dimensions. Journal of Scientific Computing, 2021, 89, 1.	1.1	6
29	Numerical study of the two-species Vlasov–Ampère system: Energy-conserving schemes and the current-driven ion-acoustic instability. Journal of Computational Physics, 2015, 288, 66-85.	1.9	5
30	Sparse grid discontinuous Galerkin methods for the Vlasov-Maxwell system. Journal of Computational Physics: X, 2019, 3, 100022.	1.1	5
31	An adaptive sparse grid local discontinuous Galerkin method for Hamilton-Jacobi equations in high dimensions. Journal of Computational Physics, 2021, 436, 110294.	1.9	5
32	Energy-conserving numerical simulations of electron holes in two-species plasmas. European Physical Journal D, 2015, 69, 1.	0.6	4
33	An Asymptotic Preserving Maxwell Solver Resulting in the Darwin Limit of Electrodynamics. Journal of Scientific Computing, 2017, 71, 959-993.	1.1	4
34	Superconvergence of Ultra-Weak Discontinuous Galerkin Methods for the Linear Schrödinger Equation in One Dimension. Journal of Scientific Computing, 2020, 82, 1.	1.1	4
35	A Reduced Basis Method for Radiative Transfer Equation. Journal of Scientific Computing, 2022, 91, 1.	1.1	4
36	A Simple Bound-Preserving Sweeping Technique for Conservative Numerical Approximations. Journal of Scientific Computing, 2017, 73, 1028-1071.	1.1	3

#	Article	IF	Citations
37	An Adaptive Multiresolution Interior Penalty Discontinuous Galerkin Method for Wave Equations in Second Order Form. Journal of Scientific Computing, 2020, 85, 1.	1.1	3
38	Discontinuous Galerkin methods for the Boltzmann-Poisson systems in semiconductor device simulations. , 2011, , .		2
39	Discontinuous Galerkin deterministic solvers for a Boltzmannâ€"Poisson model of hot electron transport by averaged empirical pseudopotential band structures. Computer Methods in Applied Mechanics and Engineering, 2017, 321, 209-234.	3.4	2
40	A Class of Adaptive Multiresolution Ultra-Weak Discontinuous Galerkin Methods for Some Nonlinear Dispersive Wave Equations. SIAM Journal of Scientific Computing, 2022, 44, A745-A769.	1.3	2
41	Performance of a discontinuous Galerkin solver for semiconductor boltzmann equations. , 2010, , .		1
42	An Adaptive Multiresolution Ultra-weak Discontinuous Galerkin Method for Nonlinear SchrÃ¶dinger Equations. Communications on Applied Mathematics and Computation, 2022, 4, 60-83.	0.7	1
43	Study of Discrete Scattering Operators for Some Linear Kinetic Models. The IMA Volumes in Mathematics and Its Applications, 2016, , 99-136.	0.5	1
44	PPPS-2013: Energy conserving numerical schemes for Vlasov-Ampere and Vlasov-Maxwell systems. , 2013, , .		0