Dong Liang

List of Publications by Year
in descending order

82 papers	851 citations	567281 15 h-index	580821 25 g-index
82 all docs	82 docs citations	82 times ranked	355 citing authors

#	Article	IF	Citations
1	A fourth-order block-centered compact difference scheme for nonlinear contaminant transport equations with adsorption. Applied Numerical Mathematics, 2022, 171, 212-232.	2.1	3
2	Energy-Conserved Splitting Multidomain Legendre-Tau Spectral Method for Two Dimensional Maxwell's Equations. Journal of Scientific Computing, 2022, 90, 1.	2.3	2
3	Energy-preserving local mesh-refined splitting FDTD schemes for two dimensional Maxwell's equations. Journal of Computational Physics, 2021, 425, 109896.	3.8	4
4	High Order Compact Block-Centered Finite Difference Schemes for Elliptic and Parabolic Problems. Journal of Scientific Computing, 2021, 87, 1.	2.3	10
5	Using the EC-S-FDTD Scheme to Approximate Eddy Currents Induced by Z-Gradient Coils. IEEE Transactions on Antennas and Propagation, 2021, 69, 4715-4726.	5.1	1
6	The energy-preserving time high-order AVF compact finite difference scheme for nonlinear wave equations in two dimensions. Applied Numerical Mathematics, 2021, 170, 298-320.	2.1	6
7	The conservative splitting domain decomposition method for multicomponent contamination flows in porous media. Journal of Computational Physics, 2020, 400, 108974.	3.8	12
8	High-order characteristic-finite volume methods for aerosol dynamic equations. Journal of Computational and Applied Mathematics, 2020, 370, 112593.	2.0	0
9	Energy-preserving time high-order AVF compact finite difference schemes for nonlinear wave equations with variable coefficients. Journal of Computational Physics, 2020, 421, 109738.	3.8	7
10	A Multipoint Flux Mixed Finite Element Method for Darcy–Forchheimer Incompressible Miscible Displacement Problem. Journal of Scientific Computing, 2020, 82, 1.	2.3	4
11	Two novel energy dissipative difference schemes for the strongly coupled nonlinear space fractional wave equations with damping. Applied Numerical Mathematics, 2020, 157, 178-209.	2.1	6
12	The energy-preserving finite difference methods and their analyses for system of nonlinear wave equations in two dimensions. Applied Numerical Mathematics, 2020, 151, 172-198.	2.1	19
13	A Mass-Conservative Temporal Second Order and Spatial Fourth Order Characteristic Finite Volume Method for Atmospheric Pollution Advection Diffusion Problems. SIAM Journal of Scientific Computing, 2019, 41, B1178-B1210.	2.8	10
14	The Conservative Time High-Order AVF Compact Finite Difference Schemes for Two-Dimensional Variable Coefficient Acoustic Wave Equations. Journal of Scientific Computing, 2019, 80, 1279-1309.	2.3	9
15	A new fourth-order energy dissipative difference method for high-dimensional nonlinear fractional generalized wave equations. Communications in Nonlinear Science and Numerical Simulation, 2019, 78, 104850.	3.3	7
16	Analysis of a conservative high-order compact finite difference scheme for the Klein–Gordon–Schrödinger equation. Journal of Computational and Applied Mathematics, 2019, 358, 84-96.	2.0	11
17	Second order in time and space corrected explicit–implicit domain decomposition scheme for convection–diffusion equations. Journal of Computational and Applied Mathematics, 2019, 357, 38-55.	2.0	3
18	Optimal weighted upwind finite volume method for convection–diffusion equations in 2D. Journal of Computational and Applied Mathematics, 2019, 359, 73-87.	2.0	13

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19	A conservative splitting difference scheme for the fractional-in-space Boussinesq equation. Applied Numerical Mathematics, 2019, 143, 61-74.	2.1	6
20	The energy conservative splitting FDTD scheme and its energy identities for metamaterial electromagnetic Lorentz system. Computer Physics Communications, 2019, 239, 94-111.	7.5	3
21	The long wave fluid flows on inclined porous media with nonlinear Forchheimer's law. AIP Advances, 2019, 9, 095302.	1.3	1
22	A second-order box solver for nonlinear delayed convection-diffusion equations with Neumann boundary conditions. International Journal of Computer Mathematics, 2019, 96, 1879-1898.	1.8	4
23	The finite difference scheme for nonlinear Schrödinger equations on unbounded domain by artificial boundary conditions. Applied Numerical Mathematics, 2018, 128, 183-204.	2.1	10
24	High‐order energy‐preserving schemes for the improved Boussinesq equation. Numerical Methods for Partial Differential Equations, 2018, 34, 1145-1165.	3.6	13
25	The time fourth-order compact ADI methods for solving two-dimensional nonlinear wave equations. Applied Mathematics and Computation, 2018, 329, 188-209.	2.2	20
26	The Conservative Splitting High-Order Compact Finite Difference Scheme for Two-Dimensional Schrödinger Equations. International Journal of Computational Methods, 2018, 15, 1750079.	1.3	2
27	Analysis of a Fourier pseudo-spectral conservative scheme for the Klein–Gordon–Schrödinger equation. International Journal of Computer Mathematics, 2018, 95, 36-60.	1.8	3
28	Mass-preserving time second-order explicit–implicit domain decomposition schemes for solving parabolic equations with variable coefficients. Computational and Applied Mathematics, 2018, 37, 4423-4442.	1.3	6
29	The new mass-conserving S-DDM scheme for two-dimensional parabolic equations with variable coefficients. Applied Mathematics and Computation, 2018, 338, 882-902.	2.2	12
30	Global energy‐tracking identities and global energy‐tracking splitting FDTD schemes for the <scp>D</scp>rude Models of <scp>M</scp>axwell's equations in three‐dimensional metamaterials. Numerical Methods for Partial Differential Equations, 2017, 33, 763-785.	3.6	3
31	A Time Second-Order Mass-Conserved Implicit-Explicit Domain Decomposition Scheme for Solving the Diffusion Equations. Advances in Applied Mathematics and Mechanics, 2017, 9, 795-817.	1.2	5
32	The Time Second Order Mass Conservative Characteristic FDM for Advection–Diffusion Equations in High Dimensions. Journal of Scientific Computing, 2017, 73, 26-49.	2.3	12
33	High-order finite difference methods for a second order dual-phase-lagging models of microscale heat transfer. Applied Mathematics and Computation, 2017, 309, 31-48.	2.2	16
34	The mass-preserving and modified-upwind splitting DDM scheme for time-dependent convection–diffusion equations. Journal of Computational and Applied Mathematics, 2017, 317, 247-273.	2.0	25
35	A multipoint flux mixed finite element method for the compressible Darcy–Forchheimer models. Applied Mathematics and Computation, 2017, 315, 259-277.	2.2	8
36	A new high-order energy-preserving scheme for the modified Korteweg-de Vries equation. Numerical Algorithms, 2017, 74, 659-674.	1.9	4

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37	Analysis of the energy–conserved S–FDTD scheme for variable coefficient Maxwell's equations in disk domains. Mathematical Methods in the Applied Sciences, 2016, 39, 1689-1704.	2.3	1
38	The Mass-Preserving S-DDM Scheme for Two-Dimensional Parabolic Equations. Communications in Computational Physics, 2016, 19, 411-441.	1.7	15
39	ADI-FDTD Method for Two-Dimensional Transient Electromagnetic Problems. Communications in Computational Physics, 2016, 19, 94-123.	1.7	4
40	Symmetric Energy-Conserved S-FDTD Scheme for Two-Dimensional Maxwell's Equations in Negative Index Metamaterials. Journal of Scientific Computing, 2016, 69, 696-735.	2.3	7
41	Modelling multi-component aerosol transport problems by the efficient splitting characteristic method. Atmospheric Environment, 2016, 144, 297-314.	4.1	4
42	High-Order Finite Volume Methods for Aerosol Dynamic Equations. Advances in Applied Mathematics and Mechanics, 2016, 8, 213-235.	1.2	2
43	The conservative characteristic FD methods for atmospheric aerosol transport problems. Journal of Computational Physics, 2016, 305, 494-520.	3.8	21
44	Locally one-dimensional-alternating segment explicit–implicit and locally one-dimensional-alternating segment Crank–Nicolson methods for two-dimension parabolic equations. International Journal of Computer Mathematics, 2015, 92, 513-531.	1.8	2
45	Global optimization of total power generated from wind farm. , 2014, , .		0
46	Numerical analysis of the second-order characteristic FEM for nonlinear aerosol dynamic equations. Journal of Computational and Applied Mathematics, 2014, 261, 48-61.	2.0	4
47	The efficient S-DDM scheme and its analysis for solving parabolic equations. Journal of Computational Physics, 2014, 272, 46-69.	3.8	18
48	Energy-conserved splitting spectral methods for two dimensional Maxwell's equations. Journal of Computational and Applied Mathematics, 2014, 265, 301-321.	2.0	13
49	A new weighted upwind finite volume element method based on non–standard covolume for time–dependent convection–diffusion problems. International Journal for Numerical Methods in Fluids, 2013, 73, 953-975.	1.6	3
50	The spatial fourth-order energy-conserved S-FDTD scheme for Maxwell's equations. Journal of Computational Physics, 2013, 243, 344-364.	3.8	17
51	An adaptive wavelet method and its analysis for parabolic equations. Numerical Algebra, Control and Optimization, 2013, 3, 327-345.	1.6	0
52	Multi-component atmospheric aerosols prediction by a multi-functional MC-HDMR approach. Atmospheric Research, 2012, 113, 43-56.	4.1	4
53	New Energy-Conserved Identitiesand Super-Convergence of the Symmetric Ec-S-Fdtd Scheme for Maxwell's Equations in 2D. Communications in Computational Physics, 2012, 11, 1673-1696.	1.7	6
54	Relaxation Factor Effects in the Non-Linear Mixed Spectral Finite Difference Model of Flow Over Topographic Features. Boundary-Layer Meteorology, 2011, 140, 23-35.	2.3	3

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55	Second-order characteristic schemes in time and age for a nonlinear age-structured population model. Journal of Computational and Applied Mathematics, 2011, 235, 3841-3858.	2.0	2
56	An efficient approach of aerosol thermodynamic equilibrium predictions by the HDMR method. Atmospheric Environment, 2010, 44, 1321-1330.	4.1	7
57	An efficient S-DDM iterative approach for compressible contamination fluid flows in porous media. Journal of Computational Physics, 2010, 229, 4501-4521.	3.8	36
58	Energy-Conserved Splitting Finite-Difference Time-Domain Methods for Maxwell's Equations in Three Dimensions. SIAM Journal on Numerical Analysis, 2010, 48, 1530-1554.	2.3	48
59	An Efficient Splitting Domain Decomposition Approach for Parabolic-Type Time-Dependent Problems in Porous Media. Lecture Notes in Computer Science, 2010, , 69-77.	1.3	1
60	STRUCTURED INFLUENZA MODEL FOR META-POPULATION. International Journal of Biomathematics, 2009, 02, 525-541.	2.9	1
61	Numerical analysis to discontinuous Galerkin methods for the age structured population model of marine invertebrates. Numerical Methods for Partial Differential Equations, 2009, 25, 470-493.	3.6	3
62	The numerical simulation and analysis of three-dimensional seawater intrusion and protection projects in porous media. Science in China Series G: Physics, Mechanics and Astronomy, 2009, 52, 92-107.	0.2	5
63	An efficient second‐order characteristic finite element method for non‐linear aerosol dynamic equations. International Journal for Numerical Methods in Engineering, 2009, 80, 338-354.	2.8	14
64	Wavelet Galerkin Methods for Aerosol Dynamic Equations in Atmospheric Environment. Communications in Computational Physics, 2009, , 109-130.	1.7	5
65	Symmetric Energy-Conserved Splitting FDTD Scheme for the Maxwell's Equations. Communications in Computational Physics, 2009, 6, 804-825.	1.7	15
66	Energy-conserved splitting FDTD methods for Maxwell's equations. Numerische Mathematik, 2008, 108, 445-485.	1.9	65
67	Numerical method for nonlinear two-phase displacement problem and its application. Applied Mathematics and Mechanics (English Edition), 2008, 29, 639-652.	3.6	0
68	Asymptotic patterns of a structured population diffusing in a two-dimensional strip. Nonlinear Analysis: Theory, Methods & Applications, 2008, 69, 3931-3951.	1.1	8
69	A new splitting wavelet method for solving the general aerosol dynamics equation. Journal of Aerosol Science, 2008, 39, 467-487.	3.8	12
70	The splitting finite-difference time-domain methods for Maxwell's equations in two dimensions. Journal of Computational and Applied Mathematics, 2007, 205, 207-230.	2.0	44
71	A derivative-free optimization algorithm based on conditional moments. Journal of Mathematical Analysis and Applications, 2007, 331, 1337-1360.	1.0	1
72	A fractional step ELLAM approach to high-dimensional convection–diffusion problems with forward particle tracking. Journal of Computational Physics, 2007, 221, 198-225.	3.8	10

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73	An optimal weighted upwinding covolume method on non-standard grids for convection–diffusion problems in 2D. International Journal for Numerical Methods in Engineering, 2006, 67, 553-577.	2.8	16
74	Finite element approximations to one-phase nonlinear free boundary problem in groundwater contamination flow. Numerical Methods for Partial Differential Equations, 2006, 22, 1267-1288.	3.6	1
75	Modelling Population Growth with Delayed Nonlocal Reaction in 2-Dimensions. Mathematical Biosciences and Engineering, 2005, 2, 111-132.	1.9	16
76	The Weighted Upwinding Finite Volume Method for the Convection Diffusion Problem on a Nonstandard Covolume Grid. Applied Numerical Analysis and Computational Mathematics, 2004, 1, 180-194.	0.6	1
77	Error estimates for mixed finite element approximations of the viscoelasticity wave equation. Mathematical Methods in the Applied Sciences, 2004, 27, 1997-2016.	2.3	8
78	An improved numerical simulator for different types of flows in porous media. Numerical Methods for Partial Differential Equations, 2003, 19, 343-362.	3.6	12
79	Modified High-order Upwing Method for Convection Diffusion Equation. Acta Mathematicae Applicatae Sinica, 2002, 18, 131-146.	0.7	0
80	Predicting the Consequences of Seawater Intrusion and Protection Projects. Applied Mathematics and Mechanics (English Edition), 2001, 22, 1291-1300.	3.6	6
81	An Approximation to Miscible Fluid Flows in Porous Media with Point Sources and Sinks by an Eulerian--Lagrangian Localized Adjoint Method and Mixed Finite Element Methods. SIAM Journal of Scientific Computing, 2000, 22, 561-581.	2.8	88
82	A high-order upwind method for the convection-diffusion problem. Computer Methods in Applied Mechanics and Engineering, 1997, 147, 105-115.	6.6	22