

# Dong Liang

## List of Publications by Year in descending order

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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	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. <i>SIAM Journal of Scientific Computing</i> , 2000, 22, 561-581.	2.8	88
2	Energy-conserved splitting FDTD methods for Maxwell's equations. <i>Numerische Mathematik</i> , 2008, 108, 445-485.	1.9	65
3	Energy-Conserved Splitting Finite-Difference Time-Domain Methods for Maxwell's Equations in Three Dimensions. <i>SIAM Journal on Numerical Analysis</i> , 2010, 48, 1530-1554.	2.3	48
4	The splitting finite-difference time-domain methods for Maxwell's equations in two dimensions. <i>Journal of Computational and Applied Mathematics</i> , 2007, 205, 207-230.	2.0	44
5	An efficient S-DDM iterative approach for compressible contamination fluid flows in porous media. <i>Journal of Computational Physics</i> , 2010, 229, 4501-4521.	3.8	36
6	The mass-preserving and modified-upwind splitting DDM scheme for time-dependent convection–diffusion equations. <i>Journal of Computational and Applied Mathematics</i> , 2017, 317, 247-273.	2.0	25
7	A high-order upwind method for the convection-diffusion problem. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1997, 147, 105-115.	6.6	22
8	The conservative characteristic FD methods for atmospheric aerosol transport problems. <i>Journal of Computational Physics</i> , 2016, 305, 494-520.	3.8	21
9	The time fourth-order compact ADI methods for solving two-dimensional nonlinear wave equations. <i>Applied Mathematics and Computation</i> , 2018, 329, 188-209.	2.2	20
10	The energy-preserving finite difference methods and their analyses for system of nonlinear wave equations in two dimensions. <i>Applied Numerical Mathematics</i> , 2020, 151, 172-198.	2.1	19
11	The efficient S-DDM scheme and its analysis for solving parabolic equations. <i>Journal of Computational Physics</i> , 2014, 272, 46-69.	3.8	18
12	The spatial fourth-order energy-conserved S-FDTD scheme for Maxwell's equations. <i>Journal of Computational Physics</i> , 2013, 243, 344-364.	3.8	17
13	An optimal weighted upwinding covolume method on non-standard grids for convection–diffusion problems in 2D. <i>International Journal for Numerical Methods in Engineering</i> , 2006, 67, 553-577.	2.8	16
14	High-order finite difference methods for a second order dual-phase-lagging models of microscale heat transfer. <i>Applied Mathematics and Computation</i> , 2017, 309, 31-48.	2.2	16
15	Modelling Population Growth with Delayed Nonlocal Reaction in 2-Dimensions. <i>Mathematical Biosciences and Engineering</i> , 2005, 2, 111-132.	1.9	16
16	The Mass-Preserving S-DDM Scheme for Two-Dimensional Parabolic Equations. <i>Communications in Computational Physics</i> , 2016, 19, 411-441.	1.7	15
17	Symmetric Energy-Conserved Splitting FDTD Scheme for the Maxwell's Equations. <i>Communications in Computational Physics</i> , 2009, 6, 804-825.	1.7	15
18	An efficient second-order characteristic finite element method for nonlinear aerosol dynamic equations. <i>International Journal for Numerical Methods in Engineering</i> , 2009, 80, 338-354.	2.8	14

#	ARTICLE	IF	CITATIONS
19	Energy-conserved splitting spectral methods for two dimensional Maxwell's equations. Journal of Computational and Applied Mathematics, 2014, 265, 301-321.	2.0	13
20	High-order energy-preserving schemes for the improved Boussinesq equation. Numerical Methods for Partial Differential Equations, 2018, 34, 1145-1165.	3.6	13
21	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
22	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
23	A new splitting wavelet method for solving the general aerosol dynamics equation. Journal of Aerosol Science, 2008, 39, 467-487.	3.8	12
24	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
25	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
26	The conservative splitting domain decomposition method for multicomponent contamination flows in porous media. Journal of Computational Physics, 2020, 400, 108974.	3.8	12
27	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
28	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
29	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
30	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
31	High Order Compact Block-Centered Finite Difference Schemes for Elliptic and Parabolic Problems. Journal of Scientific Computing, 2021, 87, 1.	2.3	10
32	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
33	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
34	Asymptotic patterns of a structured population diffusing in a two-dimensional strip. Nonlinear Analysis: Theory, Methods & Applications, 2008, 69, 3931-3951.	1.1	8
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	An efficient approach of aerosol thermodynamic equilibrium predictions by the HDMR method. Atmospheric Environment, 2010, 44, 1321-1330.	4.1	7

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37	Symmetric Energy-Conserved S-FDTD Scheme for Two-Dimensional Maxwell's Equations in Negative Index Metamaterials. <i>Journal of Scientific Computing</i> , 2016, 69, 696-735.	2.3	7
38	A new fourth-order energy dissipative difference method for high-dimensional nonlinear fractional generalized wave equations. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2019, 78, 104850.	3.3	7
39	Energy-preserving time high-order AVF compact finite difference schemes for nonlinear wave equations with variable coefficients. <i>Journal of Computational Physics</i> , 2020, 421, 109738.	3.8	7
40	Predicting the Consequences of Seawater Intrusion and Protection Projects. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2001, 22, 1291-1300.	3.6	6
41	New Energy-Conserved Identities and Super-Convergence of the Symmetric Ec-S-FDTD Scheme for Maxwell's Equations in 2D. <i>Communications in Computational Physics</i> , 2012, 11, 1673-1696.	1.7	6
42	Mass-preserving time second-order explicit-implicit domain decomposition schemes for solving parabolic equations with variable coefficients. <i>Computational and Applied Mathematics</i> , 2018, 37, 4423-4442.	1.3	6
43	A conservative splitting difference scheme for the fractional-in-space Boussinesq equation. <i>Applied Numerical Mathematics</i> , 2019, 143, 61-74.	2.1	6
44	Two novel energy dissipative difference schemes for the strongly coupled nonlinear space fractional wave equations with damping. <i>Applied Numerical Mathematics</i> , 2020, 157, 178-209.	2.1	6
45	The energy-preserving time high-order AVF compact finite difference scheme for nonlinear wave equations in two dimensions. <i>Applied Numerical Mathematics</i> , 2021, 170, 298-320.	2.1	6
46	The numerical simulation and analysis of three-dimensional seawater intrusion and protection projects in porous media. <i>Science in China Series G: Physics, Mechanics and Astronomy</i> , 2009, 52, 92-107.	0.2	5
47	A Time Second-Order Mass-Conserved Implicit-Explicit Domain Decomposition Scheme for Solving the Diffusion Equations. <i>Advances in Applied Mathematics and Mechanics</i> , 2017, 9, 795-817.	1.2	5
48	Wavelet Galerkin Methods for Aerosol Dynamic Equations in Atmospheric Environment. <i>Communications in Computational Physics</i> , 2009, , 109-130.	1.7	5
49	Multi-component atmospheric aerosols prediction by a multi-functional MC-HDMR approach. <i>Atmospheric Research</i> , 2012, 113, 43-56.	4.1	4
50	Numerical analysis of the second-order characteristic FEM for nonlinear aerosol dynamic equations. <i>Journal of Computational and Applied Mathematics</i> , 2014, 261, 48-61.	2.0	4
51	ADI-FDTD Method for Two-Dimensional Transient Electromagnetic Problems. <i>Communications in Computational Physics</i> , 2016, 19, 94-123.	1.7	4
52	Modelling multi-component aerosol transport problems by the efficient splitting characteristic method. <i>Atmospheric Environment</i> , 2016, 144, 297-314.	4.1	4
53	A new high-order energy-preserving scheme for the modified Korteweg-de Vries equation. <i>Numerical Algorithms</i> , 2017, 74, 659-674.	1.9	4
54	A second-order box solver for nonlinear delayed convection-diffusion equations with Neumann boundary conditions. <i>International Journal of Computer Mathematics</i> , 2019, 96, 1879-1898.	1.8	4

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55	A Multipoint Flux Mixed Finite Element Method for Darcy–Forchheimer Incompressible Miscible Displacement Problem. <i>Journal of Scientific Computing</i> , 2020, 82, 1.	2.3	4
56	Energy-preserving local mesh-refined splitting FDTD schemes for two dimensional Maxwell's equations. <i>Journal of Computational Physics</i> , 2021, 425, 109896.	3.8	4
57	Numerical analysis to discontinuous Galerkin methods for the age structured population model of marine invertebrates. <i>Numerical Methods for Partial Differential Equations</i> , 2009, 25, 470-493.	3.6	3
58	Relaxation Factor Effects in the Non-Linear Mixed Spectral Finite Difference Model of Flow Over Topographic Features. <i>Boundary-Layer Meteorology</i> , 2011, 140, 23-35.	2.3	3
59	A new weighted upwind finite volume element method based on non-standard covolume for time-dependent convection–diffusion problems. <i>International Journal for Numerical Methods in Fluids</i> , 2013, 73, 953-975.	1.6	3
60	Global energy-tracking identities and global energy-tracking splitting FDTD schemes for the $D$ -rude Models of $M$ axwell's equations in three-dimensional metamaterials. <i>Numerical Methods for Partial Differential Equations</i> , 2017, 33, 763-785.	3.6	3
61	Analysis of a Fourier pseudo-spectral conservative scheme for the Klein–Gordon–Schrödinger equation. <i>International Journal of Computer Mathematics</i> , 2018, 95, 36-60.	1.8	3
62	Second order in time and space corrected explicit–implicit domain decomposition scheme for convection–diffusion equations. <i>Journal of Computational and Applied Mathematics</i> , 2019, 357, 38-55.	2.0	3
63	The energy conservative splitting FDTD scheme and its energy identities for metamaterial electromagnetic Lorentz system. <i>Computer Physics Communications</i> , 2019, 239, 94-111.	7.5	3
64	A fourth-order block-centered compact difference scheme for nonlinear contaminant transport equations with adsorption. <i>Applied Numerical Mathematics</i> , 2022, 171, 212-232.	2.1	3
65	Second-order characteristic schemes in time and age for a nonlinear age-structured population model. <i>Journal of Computational and Applied Mathematics</i> , 2011, 235, 3841-3858.	2.0	2
66	Locally one-dimensional-alternating segment explicit–implicit and locally one-dimensional-alternating segment Crank–Nicolson methods for two-dimension parabolic equations. <i>International Journal of Computer Mathematics</i> , 2015, 92, 513-531.	1.8	2
67	High-Order Finite Volume Methods for Aerosol Dynamic Equations. <i>Advances in Applied Mathematics and Mechanics</i> , 2016, 8, 213-235.	1.2	2
68	The Conservative Splitting High-Order Compact Finite Difference Scheme for Two-Dimensional Schrödinger Equations. <i>International Journal of Computational Methods</i> , 2018, 15, 1750079.	1.3	2
69	Energy-Conserved Splitting Multidomain Legendre-Tau Spectral Method for Two Dimensional Maxwell's Equations. <i>Journal of Scientific Computing</i> , 2022, 90, 1.	2.3	2
70	The Weighted Upwinding Finite Volume Method for the Convection Diffusion Problem on a Nonstandard Covolume Grid. <i>Applied Numerical Analysis and Computational Mathematics</i> , 2004, 1, 180-194.	0.6	1
71	Finite element approximations to one-phase nonlinear free boundary problem in groundwater contamination flow. <i>Numerical Methods for Partial Differential Equations</i> , 2006, 22, 1267-1288.	3.6	1
72	A derivative-free optimization algorithm based on conditional moments. <i>Journal of Mathematical Analysis and Applications</i> , 2007, 331, 1337-1360.	1.0	1

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73	STRUCTURED INFLUENZA MODEL FOR META-POPULATION. International Journal of Biomathematics, 2009, 02, 525-541.	2.9	1
74	Analysis of the energy-conserved FDTD scheme for variable coefficient Maxwell's equations in disk domains. Mathematical Methods in the Applied Sciences, 2016, 39, 1689-1704.	2.3	1
75	The long wave fluid flows on inclined porous media with nonlinear Forchheimer's law. AIP Advances, 2019, 9, 095302.	1.3	1
76	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
77	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
78	Modified High-order Upwind Method for Convection Diffusion Equation. Acta Mathematicae Applicatae Sinica, 2002, 18, 131-146.	0.7	0
79	Numerical method for nonlinear two-phase displacement problem and its application. Applied Mathematics and Mechanics (English Edition), 2008, 29, 639-652.	3.6	0
80	Global optimization of total power generated from wind farm. , 2014, , .		0
81	High-order characteristic-finite volume methods for aerosol dynamic equations. Journal of Computational and Applied Mathematics, 2020, 370, 112593.	2.0	0
82	An adaptive wavelet method and its analysis for parabolic equations. Numerical Algebra, Control and Optimization, 2013, 3, 327-345.	1.6	0