Liquan Mei

List of Publications by Year
in descending order

96 papers	1,622 citations	331670 21 h-index	361022 35 g-index
96 all docs	96 docs citations	96 times ranked	859 citing authors

#	Article	IF	Citations
1	Mixed virtual element method for the Helmholtz transmission eigenvalue problem on polytopal meshes. IMA Journal of Numerical Analysis, 2023, 43, 1685-1717.	2.9	2
2	Three decoupled, second-order accurate, and energy stable schemes for the conserved Allenâ€“Cahn-type block copolymer (BCP) model. Numerical Algorithms, 2023, 92, 1233-1259.	1.9	3
3	Two efficient methods for solving the generalized regularized long wave equation. Applicable Analysis, 2022, 101, 4721-4742.	1.3	12
4	The optimal order convergence for the lowest order mixed finite element method of the biharmonic eigenvalue problem. Journal of Computational and Applied Mathematics, 2022, 402, 113783.	2.0	9
5	Self-similar Solution of Hot Accretion Flow with Thermal Conduction and Anisotropic Pressure. Astrophysical Journal, 2022, 926, 182.	4.5	1
6	A Two-Level Nonconforming Rotated Quadrilateral Finite Element Method for the Stationary Navierâ€“Stokes Equations. Mathematical Problems in Engineering, 2022, 2022, 1-29.	1.1	0
7	Energy-conserving and time-stepping-varying ESAV-Hermite-Galerkin spectral scheme for nonlocal Klein-Gordon-SchrÃ¶dinger system with fractional Laplacian in unbounded domains. Journal of Computational Physics, 2022, 458, 111096.	3.8	6
8	A lowest-order free-stabilization Virtual Element Method for the Laplacian eigenvalue problem. Journal of Computational and Applied Mathematics, 2022, 410, 114013.	2.0	5
9	A new Allenâ€“Cahn type two-model phase-field crystal model for fcc ordering and its numerical approximation. Applied Mathematics Letters, 2022, 132, 108211.	2.7	9
10	Efficient, decoupled, and second-order unconditionally energy stable numerical schemes for the coupled Cahnâ€“Hilliard system in copolymer/homopolymer mixtures. Computer Physics Communications, 2021, 260, 107290.	7.5	20
11	A novel alternating-direction implicit spectral Galerkin method for a multi-term time-space fractional diffusion equation in three dimensions. Numerical Algorithms, 2021, 86, 1443-1474.	1.9	10
12	Highly efficient and linear numerical schemes with unconditional energy stability for the anisotropic phase-field crystal model. Journal of Computational and Applied Mathematics, 2021, 383, 113122.	2.0	3
13	Efficient numerical scheme for the anisotropic modified phase-field crystal model with a strong nonlinear vacancy potential. Communications in Mathematical Sciences, 2021, 19, 355-381.	1.0	5
14	A lowest-order virtual element method for the Helmholtz transmission eigenvalue problem. Calcolo, 2021, 58, 1.	1.1	5
15	Two second-order and linear numerical schemes for the multi-dimensional nonlinear time-fractional SchrÃ¶dinger equation. Numerical Algorithms, 2021, 88, 419-451.	1.9	13
16	Two-dimensional Inflow-wind Solution of Hot Accretion Flow. I. Hydrodynamics. Astrophysical Journal, 2021, 909, 140.	4.5	5
17	Efficient second-order unconditionally stable numerical schemes for the modified phase field crystal model with long-range interaction. Journal of Computational and Applied Mathematics, 2021, 389, 113335.	2.0	16
18	Finite difference/generalized Hermite spectral method for the distributed-order time-fractional reaction-diffusion equation on multi-dimensional unbounded domains. Computers and Mathematics With Applications, 2021, 93, 1-19.	2.7	8

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19	Numerical Approximation of the Two-Component PFC Models for Binary Colloidal Crystals: Efficient, Decoupled, and Second-Order Unconditionally Energy Stable Schemes. Journal of Scientific Computing, 2021, 88, 1.	2.3	15
20	A Self-similar Solution of Hot Accretion Flow: The Role of the Kinematic Viscosity Coefficient. Astrophysical Journal, 2021, 917, 19.	4.5	2
21	Finite element implementation of general triangular mesh for Riesz derivative. Partial Differential Equations in Applied Mathematics, 2021, 4, 100188.	2.4	2
22	IMEX Hermite–Galerkin Spectral Schemes with Adaptive Time Stepping for the Coupled Nonlocal Gordon-Type Systems in Multiple Dimensions. SIAM Journal of Scientific Computing, 2021, 43, B1133-B1163.	2.8	5
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37	Stable second-order schemes for the space-fractional Cahnâ€“Hilliard and Allenâ€“Cahn equations. Computers and Mathematics With Applications, 2019, 78, 3485-3500.	2.7	21
38	Two-grid MFEAs for the incompressible Stokes type variational inequality with damping. Computers and Mathematics With Applications, 2019, 78, 2772-2788.	2.7	10
39	A linear, symmetric and energy-conservative scheme for the space-fractional Kleinâ€“Gordonâ€“SchrÃ¶dinger equations. Applied Mathematics Letters, 2019, 95, 104-113.	2.7	19
40	Efficient numerical schemes with unconditional energy stabilities for the modified phase field crystal equation. Advances in Computational Mathematics, 2019, 45, 1551-1580.	1.6	40
41	Split-step spectral Galerkin method for the two-dimensional nonlinear space-fractional SchrÃ¶dinger equation. Applied Numerical Mathematics, 2019, 136, 257-278.	2.1	31
42	A conservative spectral Galerkin method for the coupled nonlinear space-fractional SchrÃ¶dinger equations. International Journal of Computer Mathematics, 2019, 96, 2387-2410.	1.8	8
43	The matrix domain and the spectra of a generalized difference operator. Journal of Mathematical Analysis and Applications, 2019, 470, 1095-1107.	1.0	22
44	An efficient finite difference/Hermiteâ€“Galerkin spectral method for time-fractional coupled sineâ€“Gordon equations on multidimensional unbounded domains and its application in numerical simulations of vector solitons. Computer Physics Communications, 2019, 237, 110-128.	7.5	14
45	Galerkin methods for the Daveyâ€“Stewartson equations. Applied Mathematics and Computation, 2018, 328, 144-161.	2.2	0
46	A non-conforming finite volume element method for the two-dimensional Navierâ€“Stokes/Darcy system. Computational and Applied Mathematics, 2018, 37, 457-474.	1.3	1
47	Galerkin finite element methods for two-dimensional RLW and SRLW equations. Applicable Analysis, 2018, 97, 2288-2312.	1.3	6
48	Binomial difference sequence spaces of fractional order. Journal of Inequalities and Applications, 2018, 2018, 274.	1.1	8
49	A second-order, uniquely solvable, energy stable BDF numerical scheme for the phase field crystal model. Applied Numerical Mathematics, 2018, 134, 46-65.	2.1	24
50	Finite difference/spectral-Galerkin method for a two-dimensional distributed-order timeâ€“space fractional reactionâ€“diffusion equation. Applied Mathematics Letters, 2018, 85, 157-163.	2.7	39
51	A Stabilized Fourier Spectral Method for the Fractional Cahn-Hilliard Equation. Computer Simulation in Application, 2018, 1, .	0.0	1
52	A penaltyâ€FEM for navierâ€stokes type variational inequality with nonlinear damping term. Numerical Methods for Partial Differential Equations, 2017, 33, 918-940.	3.6	13
53	A Mixed-FEM for Navierâ€“Stokes type variational inequality with nonlinear damping term. Computers and Mathematics With Applications, 2017, 73, 2191-2207.	2.7	13
54	Two-step algorithms for the stationary incompressible Navierâ€“Stokes equations with friction boundary conditions. Applied Numerical Mathematics, 2017, 120, 97-114.	2.1	13

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55	An efficient Galerkin spectral method for two-dimensional fractional nonlinear reactionâ€“diffusion-wave equation. Computers and Mathematics With Applications, 2017, 74, 2449-2465.	2.7	29
56	Galerkin finite element methods for the generalized Kleinâ€“Gordonâ€“Zakharov equations. Computers and Mathematics With Applications, 2017, 74, 2466-2484.	2.7	9
57	Twoâ€grid variational multiscale algorithms for the stationary incompressible Navierâ€Stokes equations with friction boundary conditions. Numerical Methods for Partial Differential Equations, 2017, 33, 546-569.	3.6	6
58	Fully Discrete Local Discontinuous Galerkin Approximation for Time-Space Fractional Subdiffusion/Superdiffusion Equations. Advances in Mathematical Physics, 2017, 2017, 1-20.	0.8	1
59	Modulation instability and dissipative ion-acoustic structures in collisional nonthermal electron-positron-ion plasma: solitary and shock waves. Plasma Sources Science and Technology, 2016, 25, 055006.	3.1	4
60	Implicitâ€“explicit multistep methods for general two-dimensional nonlinear SchrÃ¶dinger equations. Applied Numerical Mathematics, 2016, 109, 41-60.	2.1	15
61	A simple greedy approximation algorithm for the minimum connected $$k$$ k -Center problem. Journal of Combinatorial Optimization, 2016, 31, 1417-1429.	1.3	5
62	Modulation instability and ion-acoustic rogue waves in a strongly coupled collisional plasma with nonthermal nonextensive electrons. Plasma Physics and Controlled Fusion, 2016, 58, 025014.	2.1	19
63	Numerical study using explicit multistep <scp>G</scp>alerkin finite element method for the <scp>MRLW</scp> equation. Numerical Methods for Partial Differential Equations, 2015, 31, 1875-1889.	3.6	10
64	Time-fractional Gardner equation for ion-acoustic waves in negative-ion-beam plasma with negative ions and nonthermal nonextensive electrons. Physics of Plasmas, 2015, 22, 052306.	1.9	35
65	Mixed Galerkin finite element methods for modified regularized long wave equation. Applied Mathematics and Computation, 2015, 258, 267-281.	2.2	11
66	The compound (Gâ€²G)-expansion method and double non-traveling wave solutions of (2+1) -dimensional nonlinear partial differential equations. Computers and Mathematics With Applications, 2015, 69, 804-816.	2.7	11
67	A time-splitting Galerkin finite element method for the Daveyâ€“Stewartson equations. Computer Physics Communications, 2015, 197, 35-42.	7.5	5
68	A defect-correction stabilized finite element method for Navierâ€“Stokes equations with friction boundary conditions. Applied Numerical Mathematics, 2015, 90, 9-21.	2.1	13
69	Two-level defect-correction stabilized finite element method for Navierâ€“Stokes equations with friction boundary conditions. Journal of Computational and Applied Mathematics, 2015, 280, 80-93.	2.0	20
70	A Galerkin Finite Element Method for Numerical Solutions of the Modified Regularized Long Wave Equation. Abstract and Applied Analysis, 2014, 2014, 1-11.	0.7	6
71	Modulation instability and dissipative rogue waves in ion-beam plasma: Roles of ionization, recombination, and electron attachment. Physics of Plasmas, 2014, 21, .	1.9	32
72	Iterative penalty methods for the steady Navierâ€“Stokes equations. Applied Mathematics and Computation, 2014, 237, 110-119.	2.2	3

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73	Three-dimensional dust-ion-acoustic rogue waves in a magnetized dusty pair-ion plasma with nonthermal nonextensive electrons and opposite polarity dust grains. Physics of Plasmas, 2014, 21, .	1.9	49
74	Pointwise error estimates of the bilinear SDFEM on Shishkin meshes. Numerical Methods for Partial Differential Equations, 2013, 29, 422-440.	3.6	7
75	A new fractional time-stepping method for variable density incompressible flows. Journal of Computational Physics, 2013, 242, 124-137.	3.8	27
76	Rogue wave triplets in an ion-beam dusty plasma with superthermal electrons and negative ions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 2118-2125.	2.1	38
77	Fractional variational homotopy perturbation iteration method and its application to a fractional diffusion equation. Applied Mathematics and Computation, 2013, 219, 5909-5917.	2.2	26
78	Pointwise estimates of the SDFEM for convectionâ€“diffusion problems with characteristic layers. Applied Numerical Mathematics, 2013, 64, 19-34.	2.1	11
79	A twoâ€level variational multiscale method for incompressible flows based on two local Gauss integrations. Numerical Methods for Partial Differential Equations, 2013, 29, 1986-2003.	3.6	15
80	Nonlinear ion-acoustic structures in a nonextensive electronâ€“positronâ€“ionâ€“dust plasma: Modulational instability and rogue waves. Annals of Physics, 2012, 332, 38-55.	2.8	48
81	A stabilized finite element method for transient Navierâ€“Stokes equations based on two local Gauss integrations. International Journal for Numerical Methods in Fluids, 2012, 70, 713-723.	1.6	5
82	(3â€‰+â€‰1)-dimensional cylindrical Korteweg-de Vries equation for nonextensive dust acoustic waves: Symbolic computation and exact solutions. Physics of Plasmas, 2012, 19, 063701.	1.9	16
83	Explicit multistep method for the numerical solution of RLW equation. Applied Mathematics and Computation, 2012, 218, 9547-9554.	2.2	24
84	Numerical solutions of RLW equation using Galerkin method with extrapolation techniques. Computer Physics Communications, 2012, 183, 1609-1616.	7.5	42
85	The improved fractional sub-equation method and its applications to the spaceâ€“time fractional differential equations in fluid mechanics. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 407-411.	2.1	198
86	Compacton and solitary pattern solutions for nonlinear dispersive KdV-type equations involving JumarieÊ¼s fractional derivative. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 158-164.	2.1	13
87	The extended Riccati equation mapping method for variable-coefficient diffusionâ€“reaction and mKdV equations. Applied Mathematics and Computation, 2011, 217, 6264-6272.	2.2	25
88	Global analysis of a delayed epidemic dynamical system with pulse vaccination and nonlinear incidence rate. Applied Mathematical Modelling, 2011, 35, 4865-4876.	4.2	5
89	The fractional variational iteration method using He's polynomials. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 309-313.	2.1	70
90	Global attractivity and permanence of a delayed SVEIR epidemic model with pulse vaccination and saturation incidence. Applied Mathematics and Computation, 2009, 213, 312-321.	2.2	17

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91	Data analysis for parallel car-crash simulation results and model optimization. Simulation Modelling Practice and Theory, 2008, 16, 329-337.	3.8	33
92	An efficient algorithm for solving Troeschâ€™s problem. Applied Mathematics and Computation, 2007, 189, 500-507.	2.2	68
93	A pressure-Poisson stabilized finite element method for the non-stationary Stokes equations to circumvent the infâ€“sup condition. Applied Mathematics and Computation, 2006, 182, 24-35.	2.2	23
94	Stabilized finite-element method for the stationary Navier-Stokes equations. Journal of Engineering Mathematics, 2005, 51, 367-380.	1.2	58
95	A C⁰ virtual element method for the biharmonic eigenvalue problem. International Journal of Computer Mathematics, 0, , 1-13.	1.8	4
96	A priori and a posteriori error estimates for a virtual element method for the non-self-adjoint Steklov eigenvalue problem. IMA Journal of Numerical Analysis, 0, , .	2.9	4