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	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
2	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
3	An efficient algorithm for solving Troeschâ€™s problem. Applied Mathematics and Computation, 2007, 189, 500-507.	2.2	68
4	Stabilized finite-element method for the stationary Navier-Stokes equations. Journal of Engineering Mathematics, 2005, 51, 367-380.	1.2	58
5	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
6	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
7	Numerical solutions of RLW equation using Galerkin method with extrapolation techniques. Computer Physics Communications, 2012, 183, 1609-1616.	7.5	42
8	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
9	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
10	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
11	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
12	Data analysis for parallel car-crash simulation results and model optimization. Simulation Modelling Practice and Theory, 2008, 16, 329-337.	3.8	33
13	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
14	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
15	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
16	A new fractional time-stepping method for variable density incompressible flows. Journal of Computational Physics, 2013, 242, 124-137.	3.8	27
17	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
18	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

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19	Explicit multistep method for the numerical solution of RLW equation. Applied Mathematics and Computation, 2012, 218, 9547-9554.	2.2	24
20	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
21	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
22	The matrix domain and the spectra of a generalized difference operator. Journal of Mathematical Analysis and Applications, 2019, 470, 1095-1107.	1.0	22
23	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
24	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
25	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
26	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
27	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
28	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
29	(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
30	Finite difference/Hermiteâ€“Galerkin spectral method for multi-dimensional time-fractional nonlinear reactionâ€“diffusion equation in unbounded domains. Applied Mathematical Modelling, 2019, 70, 246-263.	4.2	16
31	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
32	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
33	Implicitâ€“explicit multistep methods for general two-dimensional nonlinear SchrÃ¶dinger equations. Applied Numerical Mathematics, 2016, 109, 41-60.	2.1	15
34	A second-order decoupled energy stable numerical scheme for Cahn-Hilliard-Hele-Shaw system. Applied Numerical Mathematics, 2020, 157, 338-355.	2.1	15
35	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
36	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

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37	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
38	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
39	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
40	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
41	Two-step algorithms for the stationary incompressible Navierâ€“Stokes equations with friction boundary conditions. Applied Numerical Mathematics, 2017, 120, 97-114.	2.1	13
42	A linearized finite difference/spectral-Galerkin scheme for three-dimensional distributed-order timeâ€“space fractional nonlinear reactionâ€“diffusion-wave equation: Numerical simulations of Gordon-type solitons. Computer Physics Communications, 2020, 252, 107144.	7.5	13
43	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
44	Two efficient methods for solving the generalized regularized long wave equation. Applicable Analysis, 2022, 101, 4721-4742.	1.3	12
45	Pointwise estimates of the SDFEM for convectionâ€“diffusion problems with characteristic layers. Applied Numerical Mathematics, 2013, 64, 19-34.	2.1	11
46	Mixed Galerkin finite element methods for modified regularized long wave equation. Applied Mathematics and Computation, 2015, 258, 267-281.	2.2	11
47	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
48	A linear virtual element method for the Kirchhoff plate buckling problem. Applied Mathematics Letters, 2020, 103, 106188.	2.7	11
49	A virtual element method for the Laplacian eigenvalue problem in mixed form. Applied Numerical Mathematics, 2020, 156, 1-13.	2.1	11
50	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
51	Two-grid MFEAs for the incompressible Stokes type variational inequality with damping. Computers and Mathematics With Applications, 2019, 78, 2772-2788.	2.7	10
52	Discontinuous Galerkin methods for the Stokes equations with nonlinear damping term on general meshes. Computers and Mathematics With Applications, 2020, 79, 2258-2275.	2.7	10
53	Discontinuous Galerkin methods of the non-selfadjoint Steklov eigenvalue problem in inverse scattering. Applied Mathematics and Computation, 2020, 381, 125307.	2.2	10
54	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

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55	Galerkin finite element methods for the generalized Kleinâ€“Gordonâ€“Zakharov equations. Computers and Mathematics With Applications, 2017, 74, 2466-2484.	2.7	9
56	A mixed virtual element method for the vibration problem of clamped Kirchhoff plate. Advances in Computational Mathematics, 2020, 46, 1.	1.6	9
57	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
58	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
59	Binomial difference sequence spaces of fractional order. Journal of Inequalities and Applications, 2018, 2018, 274.	1.1	8
60	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
61	Energy stable numerical schemes for the fractional-in-space Cahnâ€“Hilliard equation. Applied Numerical Mathematics, 2020, 158, 392-414.	2.1	8
62	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
63	Pointwise error estimates of the bilinear SDFEM on Shishkin meshes. Numerical Methods for Partial Differential Equations, 2013, 29, 422-440.	3.6	7
64	Two-dimensional Inflowâ€“Outflow Solution of Supercritical Accretion Flow. Astrophysical Journal, 2020, 888, 86.	4.5	7
65	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
66	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
67	Galerkin finite element methods for two-dimensional RLW and SRLW equations. Applicable Analysis, 2018, 97, 2288-2312.	1.3	6
68	Semi-implicit Hermiteâ€“Galerkin Spectral Method for Distributed-Order Fractional-in-Space Nonlinear Reactionâ€“Diffusion Equations in Multidimensional Unbounded Domains. Journal of Scientific Computing, 2020, 85, 1.	2.3	6
69	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
70	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
71	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
72	A time-splitting Galerkin finite element method for the Daveyâ€“Stewartson equations. Computer Physics Communications, 2015, 197, 35-42.	7.5	5

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73	A simple greedy approximation algorithm for the minimum connected $$k$$ k -Center problem. Journal of Combinatorial Optimization, 2016, 31, 1417-1429.	1.3	5
74	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
75	A lowest-order virtual element method for the Helmholtz transmission eigenvalue problem. Calcolo, 2021, 58, 1.	1.1	5
76	Two-dimensional Inflow-wind Solution of Hot Accretion Flow. I. Hydrodynamics. Astrophysical Journal, 2021, 909, 140.	4.5	5
77	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
78	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
79	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
80	A C⁰ virtual element method for the biharmonic eigenvalue problem. International Journal of Computer Mathematics, 0, , 1-13.	1.8	4
81	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
82	Iterative penalty methods for the steady Navierâ€“Stokes equations. Applied Mathematics and Computation, 2014, 237, 110-119.	2.2	3
83	A generalized fractional difference operator and its applications. Linear and Multilinear Algebra, 2020, 68, 1848-1860.	1.0	3
84	A Stabilized Finite Volume Element Method for Stationary Stokesâ€“Darcy Equations Using the Lowest Order. International Journal of Computational Methods, 2020, 17, 1950053.	1.3	3
85	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
86	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
87	A Self-similar Solution of Hot Accretion Flow: The Role of the Kinematic Viscosity Coefficient. Astrophysical Journal, 2021, 917, 19.	4.5	2
88	Finite element implementation of general triangular mesh for Riesz derivative. Partial Differential Equations in Applied Mathematics, 2021, 4, 100188.	2.4	2
89	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
90	Fully Discrete Local Discontinuous Galerkin Approximation for Time-Space Fractional Subdiffusion/Superdiffusion Equations. Advances in Mathematical Physics, 2017, 2017, 1-20.	0.8	1

#	Article	IF	Citations
91	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
92			