Yang Liu

List of Publications by Year
in descending order

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77 papers	1,485 citations	394421 19 h-index	345221 36 g-index
77 all docs	77 docs citations	77 times ranked	384 citing authors

#	Article	IF	Citations
1	Finite difference/finite element method for a nonlinear time-fractional fourth-order reactionâ€“diffusion problem. Computers and Mathematics With Applications, 2015, 70, 573-591.	2.7	129
2	A mixed finite element method for a time-fractional fourth-order partial differential equation. Applied Mathematics and Computation, 2014, 243, 703-717.	2.2	119
3	A two-grid mixed finite element method for a nonlinear fourth-order reactionâ€“diffusion problem with time-fractional derivative. Computers and Mathematics With Applications, 2015, 70, 2474-2492.	2.7	116
4	A two-grid finite element approximation for a nonlinear time-fractional Cable equation. Nonlinear Dynamics, 2016, 85, 2535-2548.	5.2	94
5	Some second-order ? schemes combined with finite element method for nonlinear fractional cable equation. Numerical Algorithms, 2019, 80, 533-555.	1.9	66
6	Fast algorithm based on TT-M FE system for space fractional Allenâ€“Cahn equations with smooth and non-smooth solutions. Journal of Computational Physics, 2019, 379, 351-372.	3.8	58
7	Local discontinuous Galerkin method for a nonlinear time-fractional fourth-order partial differential equation. Journal of Computational Physics, 2017, 344, 108-126.	3.8	56
8	High-order local discontinuous Galerkin method combined with WSGD-approximation for a fractional subdiffusion equation. Computers and Mathematics With Applications, 2017, 73, 1298-1314.	2.7	51
9	Time two-mesh algorithm combined with finite element method for time fractional water wave model. International Journal of Heat and Mass Transfer, 2018, 120, 1132-1145.	4.8	46
10	An $$H^1$$ H 1 -Galerkin mixed finite element method for time fractional reactionâ€“diffusion equation. Journal of Applied Mathematics and Computing, 2015, 47, 103-117.	2.5	45
11	-Galerkin mixed finite element methods for pseudo-hyperbolic equations. Applied Mathematics and Computation, 2009, 212, 446-457.	2.2	38
12	Time second-order finite difference/finite element algorithm for nonlinear time-fractional diffusion problem with fourth-order derivative term. Computers and Mathematics With Applications, 2018, 75, 3521-3536.	2.7	38
13	Finite element method combined with second-order time discrete scheme for nonlinear fractional Cable equation. European Physical Journal Plus, 2016, 131, 1.	2.6	37
14	A class of shifted high-order numerical methods for the fractional mobile/immobile transport equations. Applied Mathematics and Computation, 2020, 368, 124799.	2.2	33
15	Second-order approximation scheme combined with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si52.gif" display="inline" overflow="scroll"><mml:msup><mml:mrow><mml:mi>H</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow></mml:msup></mml:math> MFE method for nonlinear time fractional convectionâ€“diffusion equation. Computers and Mathematics With Applications, 2017, 73, 1182-1196.	2.7	32
16	A new fully discrete finite difference/element approximation for fractional cable equation. Journal of Applied Mathematics and Computing, 2016, 52, 345-361.	2.5	27
17	Finite Element Methods Based on Two Families of Second-Order Numerical Formulas for the Fractional Cable Model with Smooth Solutions. Journal of Scientific Computing, 2020, 84, 1.	2.3	25
18	Fast second-order time two-mesh mixed finite element method for a nonlinear distributed-order sub-diffusion model. Numerical Algorithms, 2021, 88, 523-553.	1.9	23

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19	A class of efficient time-stepping methods for multi-term time-fractional reaction-diffusion-wave equations. Applied Numerical Mathematics, 2021, 165, 56-82.	2.1	21
20	TT-M finite element algorithm for a two-dimensional space fractional Grayâ€“Scott model. Computers and Mathematics With Applications, 2020, 80, 1793-1809.	2.7	19
21	Highâ€order local discontinuous Galerkin method for a fractal mobile/immobile transport equation with the Caputoâ€“Fabrizio fractional derivative. Numerical Methods for Partial Differential Equations, 2019, 35, 1588-1612.	3.6	18
22	Necessity of introducing non-integer shifted parameters by constructing high accuracy finite difference algorithms for a two-sided space-fractional advectionâ€“diffusion model. Applied Mathematics Letters, 2020, 105, 106347.	2.7	18
23	A structure preserving difference scheme with fast algorithms for high dimensional nonlinear space-fractional SchrÃ¶dinger equations. Journal of Computational Physics, 2021, 425, 109869.	3.8	18
24	Analysis of mixed finite element methods for fourth-order wave equations. Computers and Mathematics With Applications, 2013, 65, 1-16.	2.7	17
25	A novel finite element method for the distributed-order time fractional Cable equation in two dimensions. Computers and Mathematics With Applications, 2020, 80, 923-939.	2.7	17
26	The Unified Theory of Shifted Convolution Quadrature for Fractional Calculus. Journal of Scientific Computing, 2021, 89, 1.	2.3	17
27	Mixed element algorithm based on a second-order time approximation scheme for a two-dimensional nonlinear time fractional coupled sub-diffusion model. Engineering With Computers, 2022, 38, 51-68.	6.1	17
28	Splitting positive definite mixed element methods for pseudoâ€hyperbolic equations. Numerical Methods for Partial Differential Equations, 2012, 28, 670-688.	3.6	15
29	Error estimates of H 1-Galerkin mixed finite element method for SchrÃ¶dinger equation. Applied Mathematics, 2009, 24, 83-89.	1.0	13
30	A Crankâ€“Nicolson Finite Volume Element Method for Time Fractional Sobolev Equations on Triangular Grids. Mathematics, 2020, 8, 1591.	2.2	13
31	Fast algorithm based on the novel approximation formula for the Caputo-Fabrizio fractional derivative. AIMS Mathematics, 2020, 5, 1729-1744.	1.6	12
32	Mixed time discontinuous space-time finite element method for convection diffusion equations. Applied Mathematics and Mechanics (English Edition), 2008, 29, 1579-1586.	3.6	11
33	Explicit Multistep Mixed Finite Element Method for RLW Equation. Abstract and Applied Analysis, 2013, 2013, 1-12.	0.7	11
34	Crankâ€“Nicolson WSGI difference scheme with finite element method for multi-dimensional time-fractional wave problem. Computational and Applied Mathematics, 2018, 37, 5126-5145.	1.3	11
35	A Mixed Finite Volume Element Method for Time-Fractional Reaction-Diffusion Equations on Triangular Grids. Mathematics, 2019, 7, 600.	2.2	11
36	Crankâ€“Nicolson Finite Element Scheme and Modified Reduced-Order Scheme for Fractional Sobolev Equation. Numerical Functional Analysis and Optimization, 2018, 39, 1635-1655.	1.4	10

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37	Finite volume element method with the WSGD formula for nonlinear fractional mobile/immobile transport equations. Advances in Difference Equations, 2020, 2020, .	3.5	10
38	A two-grid mixed finite volume element method for nonlinear time fractional reaction-diffusion equations. AIMS Mathematics, 2022, 7, 1941-1970.	1.6	10
39	A New Mixed Element Method for a Class of Time-Fractional Partial Differential Equations. Scientific World Journal, The, 2014, 2014, 1-8.	2.1	9
40	Efficient shifted fractional trapezoidal rule for subdiffusion problems with nonsmooth solutions on uniform meshes. BIT Numerical Mathematics, 2022, 62, 631-666.	2.0	9
41	Numerical Analysis of an<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="M1"><mml:mrow><mml:msup><mml:mrow><mml:mi>H</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow> Mixed Finite Element Method for Time Fractional Telegraph Equation. Scientific World Journal, The, 2014, 2014, 1-14.	2.1	7
42	Fast calculation based on a spatial twoâ€grid finite element algorithm for a nonlinear spaceâ€“time fractional diffusion model. Numerical Methods for Partial Differential Equations, 2020, 36, 1904-1921.	3.6	7
43	Numerical simulations based on shifted second-order difference/finite element algorithms for the time fractional Maxwellâ€™s system. Engineering With Computers, 2022, 38, 191-205.	6.1	7
44	Some Second-Order Ïƒ Schemes Combined with an H1-Galerkin MFE Method for a Nonlinear Distributed-Order Sub-Diffusion Equation. Mathematics, 2020, 8, 187.	2.2	7
45	Approximation methods for the distributed order calculus using the convolution quadrature. Discrete and Continuous Dynamical Systems - Series B, 2021, 26, 1447-1468.	0.9	7
46	Mixed finite element algorithm for a nonlinear time fractional wave model. Mathematics and Computers in Simulation, 2021, 188, 60-76.	4.4	7
47	Splitting positive definite mixed element method for viscoelasticity wave equation. Frontiers of Mathematics in China, 2012, 7, 725-742.	0.7	6
48	A new mixed scheme based on variation of constants for Sobolev equation with nonlinear convection term. Applied Mathematics, 2013, 28, 158-172.	1.0	6
49	A new expanded mixed method for parabolic integro-differential equations. Applied Mathematics and Computation, 2015, 259, 600-613.	2.2	6
50	Analysis of a continuous Galerkin method with mesh modification for two-dimensional telegraph equation. Computers and Mathematics With Applications, 2020, 79, 588-602.	2.7	6
51	Local discontinuous Galerkin method based on a family of second-order time approximation schemes for fractional mobile/immobile convection-diffusion equations. Applied Numerical Mathematics, 2022, 179, 149-169.	2.1	6
52	A coupling method based on new MFE and FE for fourth-order parabolic equation. Journal of Applied Mathematics and Computing, 2013, 43, 249-269.	2.5	5
53	A Weak Galerkin Finite Element Method for High Dimensional Time-fractional Diffusion Equation. Applied Mathematics and Computation, 2020, 386, 125524.	2.2	5
54	TT-M FE method for a 2D nonlinear time distributed-order and space fractional diffusion equation. Mathematics and Computers in Simulation, 2021, 181, 117-137.	4.4	5

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55	Fourth-order compact difference schemes for the two-dimensional nonlinear fractional mobile/immobile transport models. Computers and Mathematics With Applications, 2021, 100, 1-10.	2.7	5
56	Local discontinuous Galerkin method combined with the L2 formula for the time fractional Cable model. Journal of Applied Mathematics and Computing, 2022, 68, 4457-4478.	2.5	5
57	A New Positive Definite Expanded Mixed Finite Element Method for Parabolic Integrodifferential Equations. Journal of Applied Mathematics, 2012, 2012, 1-24.	0.9	4
58	TGMFE algorithm combined with some time second-order schemes for nonlinear fourth-order reaction diffusion system. Results in Applied Mathematics, 2019, 4, 100080.	1.3	4
59	High-Order Local Discontinuous Galerkin Algorithm with Time Second-Order Schemes for the Two-Dimensional Nonlinear Fractional Diffusion Equation. Communications on Applied Mathematics and Computation, 2020, 2, 613-640.	1.7	4
60	Efficient numerical algorithm with the second-order time accuracy for a two-dimensional nonlinear fourth-order fractional wave equation. Results in Applied Mathematics, 2022, 14, 100264.	1.3	4
61	A Coupling Method of New EMFE and FE for Fourth-Order Partial Differential Equation of Parabolic Type. Advances in Mathematical Physics, 2013, 2013, 1-14.	0.8	3
62	A New Linearized Crank-Nicolson Mixed Element Scheme for the Extended Fisher-Kolmogorov Equation. Scientific World Journal, The, 2013, 2013, 1-11.	2.1	3
63	Finite volume element methods for two-dimensional time fractional reactionâ€“diffusion equations on triangular grids. Applicable Analysis, 2023, 102, 2248-2270.	1.3	3
64	Second-Order Time Stepping Scheme Combined with a Mixed Element Method for a 2D Nonlinear Fourth-Order Fractional Integro-Differential Equations. Fractal and Fractional, 2022, 6, 201.	3.3	3
65	A Time Two-Mesh Compact Difference Method for the One-Dimensional Nonlinear SchrÃ¶dinger Equation. Entropy, 2022, 24, 806.	2.2	3
66	TT-M Finite Element Algorithm for the Coupled SchrÃ¶dingerâ€“Boussinesq Equations. Axioms, 2022, 11, 314.	1.9	3
67	A Novel Characteristic Expanded Mixed Method for Reaction-Convection-Diffusion Problems. Journal of Applied Mathematics, 2013, 2013, 1-11.	0.9	2
68	A MFE method combined with L1-approximation for a nonlinear time-fractional coupled diffusion system. International Journal of Modeling, Simulation, and Scientific Computing, 2017, 08, 1750012.	1.4	2
69	A Mixed Element Algorithm Based on the Modified L1 Crankâ€“Nicolson Scheme for a Nonlinear Fourth-Order Fractional Diffusion-Wave Model. Fractal and Fractional, 2021, 5, 274.	3.3	2
70	A splitting mixed space-time discontinuous Galerkin method for parabolic problems. Procedia Engineering, 2012, 31, 1050-1059.	1.2	1
71	A New Expanded Mixed Element Method for Convection-Dominated Sobolev Equation. Scientific World Journal, The, 2014, 2014, 1-13.	2.1	1
72	The Numerical Analysis and Simulation of a Linearized Crank-Nicolson H¹-GMFEM for Nonlinear Coupled BBM Equations. Applied Mechanics and Materials, 2014, 513-517, 1919-1926.	0.2	1

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73	An expanded mixed covolume element method for integro-differential equation of Sobolev type on triangular grids. Advances in Difference Equations, 2017, 2017, .	3.5	1
74	A Splitting Mixed Covolume Method for Viscoelastic Wave Equations on Triangular Grids. Mediterranean Journal of Mathematics, 2020, 17, 1.	0.8	1
75	FINITE DIFFERENCE/H¹-GALERKIN MFE PROCEDURE FOR A FRACTIONAL WATER WAVE MODEL. Journal of Applied Analysis and Computation, 2016, 6, 409-428.	0.5	1
76	FINITE ELEMENT ALGORITHM BASED ON HIGH-ORDER TIME APPROXIMATION FOR TIME FRACTIONAL CONVECTION-DIFFUSION EQUATION. Journal of Applied Analysis and Computation, 2018, 8, 229-249.	0.5	1
77	Efficient time second-order SCQ formula combined with a mixed element method for a nonlinear time fractional wave model. Electronic Research Archive, 2022, 30, 440-458.	0.9	1