Ahmed Hendy

List of Publications by Year in descending order

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67 papers	973 citations	430874 18 h-index	501196 28 g-index
67 all docs	67 docs citations	67 times ranked	348 citing authors

#	Article	IF	Citations
1	Numerically pricing double barrier options in a time-fractional Blackâ€“Scholes model. Computers and Mathematics With Applications, 2017, 74, 1166-1175.	2.7	72
2	Semi-implicit Galerkinâ€“Legendre Spectral Schemes for Nonlinear Time-Space Fractional Diffusionâ€“Reaction Equations with Smooth and Nonsmooth Solutions. Journal of Scientific Computing, 2020, 82, 1.	2.3	71
3	A computational matrix method for solving systems of high order fractional differential equations. Applied Mathematical Modelling, 2013, 37, 4035-4050.	4.2	58
4	On a class of non-linear delay distributed order fractional diffusion equations. Journal of Computational and Applied Mathematics, 2017, 318, 433-443.	2.0	52
5	Global consistency analysis of L1-Galerkin spectral schemes for coupled nonlinear space-time fractional SchrÃ¶dinger equations. Applied Numerical Mathematics, 2020, 156, 276-302.	2.1	49
6	A pseudo energy-invariant method for relativistic wave equations with Riesz space-fractional derivatives. Computer Physics Communications, 2018, 224, 98-107.	7.5	46
7	A compact fourth-order in space energy-preserving method for Riesz space-fractional nonlinear wave equations. Applied Mathematics and Computation, 2018, 325, 1-14.	2.2	36
8	A numerically efficient and conservative model for a Riesz space-fractional Kleinâ€“Gordonâ€“Zakharov system. Communications in Nonlinear Science and Numerical Simulation, 2019, 71, 22-37.	3.3	33
9	A numerical technique for solving fractional variational problems. Mathematical Methods in the Applied Sciences, 2013, 36, 1281-1289.	2.3	32
10	A novel discrete Gronwall inequality in the analysis of difference schemes for time-fractional multi-delayed diffusion equations. Communications in Nonlinear Science and Numerical Simulation, 2019, 73, 110-119.	3.3	29
11	Graded mesh discretization for coupled system of nonlinear multi-term time-space fractional diffusion equations. Engineering With Computers, 2022, 38, 1351-1363.	6.1	28
12	A novel spectral Galerkin/Petrovâ€“Galerkin algorithm for the multi-dimensional spaceâ€“time fractional advectionâ€“diffusionâ€“reaction equations with nonsmooth solutions. Mathematics and Computers in Simulation, 2021, 190, 678-690.	4.4	27
13	Convergence analysis of an L1-continuous Galerkin method for nonlinear time-space fractional SchrÃ¶dinger equations. International Journal of Computer Mathematics, 2021, 98, 1420-1437.	1.8	24
14	An efficient dissipationâ€“preserving Legendreâ€“Galerkin spectral method for the Higgs boson equation in the de Sitter spacetime universe. Applied Numerical Mathematics, 2021, 160, 281-295.	2.1	23
15	Combined Galerkin spectral/finite difference method over graded meshes for the generalized nonlinear fractional SchrÃ¶dinger equation. Nonlinear Dynamics, 2021, 103, 2493-2507.	5.2	22
16	Numerical analysis of multi-term time-fractional nonlinear subdiffusion equations with time delay: What could possibly go wrong?. Communications in Nonlinear Science and Numerical Simulation, 2021, 96, 105672.	3.3	22
17	A general framework for the numerical analysis of high-order finite difference solvers for nonlinear multi-term time-space fractional partial differential equations with time delay. Applied Numerical Mathematics, 2021, 169, 108-121.	2.1	21
18	Convergence and stability estimates in difference setting for timeâ€fractional parabolic equations with functional delay. Numerical Methods for Partial Differential Equations, 2020, 36, 118-132.	3.6	19

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19	A numerical solution for a class of time fractional diffusion equations with delay. International Journal of Applied Mathematics and Computer Science, 2017, 27, 477-488.	1.5	18
20	Alikhanov Legendreâ€"Galerkin Spectral Method for the Coupled Nonlinear Time-Space Fractional Ginzburgâ€"Landau Complex System. Mathematics, 2021, 9, 183.	2.2	18
21	Numerical Studies for Fractional Functional Differential Equations with Delay Based on BDF-Type Shifted Chebyshev Approximations. Abstract and Applied Analysis, 2015, 2015, 1-12.	0.7	16
22	A semi-linear delayed diffusion-wave system with distributed order in time. Numerical Algorithms, 2018, 77, 885-903.	1.9	16
23	The impact of memory effect on space fractional strong quantum couplers with tunable decay behavior and its numerical simulation. Scientific Reports, 2021, 11, 10275.	3.3	16
24	Theoretical analysis of an explicit energy-conserving scheme for a fractional Kleinâ€"Gordonâ€"Zakharov system. Applied Numerical Mathematics, 2019, 146, 245-259.	2.1	14
25	On the solution of hyperbolic two-dimensional fractional systems via discrete variational schemes of high order of accuracy. Journal of Computational and Applied Mathematics, 2019, 354, 612-622.	2.0	13
26	Logarithmic Jacobi collocation method for Caputoâ€"Hadamard fractional differential equations. Applied Numerical Mathematics, 2022, 181, 326-346.	2.1	13
27	Highâ€order finite difference/spectralâ€Galerkin approximations for the nonlinear timeâ€"space fractional Ginzburgâ€"Landau equation. Numerical Methods for Partial Differential Equations, 2023, 39, 4549-4574.	3.6	12
28	On a Reconstruction of a Solely Time-Dependent Source in a Time-Fractional Diffusion Equation with Non-smooth Solutions. Journal of Scientific Computing, 2022, 90, 1.	2.3	11
29	A Discrete GrÃ¶nwall Inequality and Energy Estimates in the Analysis of a Discrete Model for a Nonlinear Time-Fractional Heat Equation. Mathematics, 2020, 8, 1539.	2.2	10
30	Numerical treatment for after-effected multi-term time-space fractional advectionâ€"diffusion equations. Engineering With Computers, 2021, 37, 2763-2773.	6.1	9
31	A note on a class of Caputo fractional differential equations with respect to another function. Mathematics and Computers in Simulation, 2022, 196, 289-295.	4.4	9
32	Long time behavior of Robin boundary sub-diffusion equation with fractional partial derivatives of Caputo type in differential and difference settings. Mathematics and Computers in Simulation, 2021, 190, 1370-1378.	4.4	8
33	A priori estimates to solutions of the time-fractional convectionâ€"diffusionâ€"reaction equation coupled with the Darcy system. Communications in Nonlinear Science and Numerical Simulation, 2022, 109, 106288.	3.3	8
34	A FRACTIONAL ANALOG OF CRANKâ€"NICHOLSON METHOD FOR THE TWO SIDED SPACE FRACTIONAL PARTIAL EQUATION WITH FUNCTIONAL DELAY. Ural Mathematical Journal, 2016, 2, 48-57.	0.3	7
35	Discrete fractional stochastic GrÃ¶nwall inequalities arising in the numerical analysis of multi-term fractional order stochastic differential equations. Mathematics and Computers in Simulation, 2022, 193, 269-279.	4.4	7
36	An energy-preserving computational approach for the semilinear space fractional damped Kleinâ€"Gordon equationÂwith a generalized scalar potential. Applied Mathematical Modelling, 2022, 108, 512-530.	4.2	7

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37	Tanh Jacobi spectral collocation method for the numerical simulation of nonlinear SchrÃ¶dinger equations on unbounded domain. Mathematical Methods in the Applied Sciences, 2023, 46, 656-674.	2.3	7
38	BDF-type shifted Chebyshev approximation scheme for fractional functional differential equations with delay and its error analysis. Applied Numerical Mathematics, 2017, 118, 266-276.	2.1	6
39	An efficient Hamiltonian numerical model for a fractional Kleinâ€“Gordon equation through weighted-shifted GrÃ¼nwald differences. Journal of Mathematical Chemistry, 2019, 57, 1394-1412.	1.5	6
40	A solely time-dependent source reconstruction in a multiterm time-fractional order diffusion equation with non-smooth solutions. Numerical Algorithms, 2022, 90, 809-832.	1.9	6
41	Numerical Simulation for a Multidimensional Fourth-Order Nonlinear Fractional Subdiffusion Model with Time Delay. Mathematics, 2021, 9, 3050.	2.2	6
42	An Efficient Hybrid Numerical Scheme for Nonlinear Multiterm Caputo Time and Riesz Space Fractional-Order Diffusion Equations with Delay. Journal of Function Spaces, 2021, 2021, 1-13.	0.9	6
43	Convergence analysis of a Legendre spectral collocation method for nonlinear Fredholm integral equations in multidimensions. Mathematical Methods in the Applied Sciences, 0, , .	2.3	5
44	Computational aspects of fractional Romanovskiâ€“Bessel functions. Computational and Applied Mathematics, 2021, 40, 1.	2.2	5
45	A Conservative Scheme with Optimal Error Estimates for a Multidimensional Spaceâ€“Fractional Grossâ€“Pitaevskii Equation. International Journal of Applied Mathematics and Computer Science, 2019, 29, 713-723.	1.5	5
46	Outcome of abdominal massage before gavage feeding on tolerated feeding for low birth weight infants. Nursing Open, 2022, 9, 1060-1065.	2.4	5
47	An easy to implement linearized numerical scheme for fractional reactionâ€“diffusion equations with a prehistorical nonlinear source function. Mathematics and Computers in Simulation, 2022, 200, 218-239.	4.4	5
48	Numerical simulation of Turing patterns in a fractional hyperbolic reaction-diffusion model with GrÃ¼nwald differences. European Physical Journal Plus, 2019, 134, 1.	2.6	4
49	Corrigendum to â€œA numerically efficient and conservative model for a Riesz space-fractional Kleinâ€“Gordonâ€“Zakharov systemâ€• Communications in Nonlinear Science and Numerical Simulation, 2020, 83, 105109.	3.3	4
50	On a discrete fractional stochastic GrÃ¶nwall inequality and its application in the numerical analysis of stochastic FDEs involving a martingale. International Journal of Nonlinear Sciences and Numerical Simulation, 2021, .	1.0	4
51	Interpolating Stabilized Element Free Galerkin Method for Neutral Delay Fractional Damped Diffusion-Wave Equation. Journal of Function Spaces, 2021, 2021, 1-11.	0.9	4
52	Numerical Methods for a Class of Fractional Advection-Diffusion Models with Functional Delay. Lecture Notes in Computer Science, 2017, , 533-541.	1.3	3
53	A bounded numerical solver for a fractional FitzHughâ€“Nagumo equation and its high-performance implementation. Engineering With Computers, 2021, 37, 1593-1609.	6.1	3
54	A Pseudo-Spectral Scheme for Systems of Two-Point Boundary Value Problems with Left and Right Sided Fractional Derivatives and Related Integral Equations. CMES - Computer Modeling in Engineering and Sciences, 2021, 128, 21-41.	1.1	2

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55	Crank-Nicolson/finite element approximation for the SchrÃ¶dinger equation in the de Sitter spacetime. Physica Scripta, 2021, 96, 124010.	2.5	2
56	On the dissipativity of some Caputo time-fractional subdiffusion models in multiple dimensions: Theoretical and numerical investigations. Journal of Computational and Applied Mathematics, 2022, 400, 113748.	2.0	2
57	A bounded and monotone finite-difference solution of a hyperbolic Burgersâ€“Fisher equation. International Journal of Modern Physics C, 2018, 29, 1850122.	1.7	1
58	Discrete monotone method for space-fractional nonlinear reactionâ€“diffusion equations. Advances in Difference Equations, 2019, 2019, .	3.5	1
59	Algorithm for some anomalously diffusive hyperbolic systems in molecular dynamics: Theoretical analysis and pattern formation. Journal of Computational Physics, 2019, 397, 108863.	3.8	1
60	Theoretical Analysis (Convergence and Stability) of a Difference Approximation for Multiterm Time Fractional Convection Diffusion-Wave Equations with Delay. Mathematics, 2020, 8, 1696.	2.2	1
61	On the stability and convergence of an implicit logarithmic scheme for diffusion equations with nonlinear reaction. Journal of Mathematical Chemistry, 2020, 58, 735-749.	1.5	1
62	On a nonlinear energy-conserving scalar auxiliary variable (SAV) model for Riesz space-fractional hyperbolic equations. Applied Numerical Mathematics, 2021, 165, 339-347.	2.1	1
63	An implicit numerical method for the solution of the fractional advectionâ€“diffusion equation with delay. Trudy Instituta Matematiki I Mekhaniki UrO RAN, 2016, 22, 218-226.	0.1	1
64	Numerical discretization for fractional differential equations with feedback control. IFAC-PapersOnLine, 2018, 51, 743-747.	0.9	0
65	Discrete Dynamics of Nonlinear Systems in Nature and Society. Discrete Dynamics in Nature and Society, 2019, 2019, 1-2.	0.9	0
66	On the Coleâ€“Hopf transformation and integration by parts formulae in computational methods within fractional differential equations and fractional optimal control theory. JVC/Journal of Vibration and Control, 0, , 107754632110310.	2.6	0
67	Numerical method for two-dimensional space fractional equations with functional delay. AIP Conference Proceedings, 2020, , .	0.4	0