Z Avazzadeh, Zakieh Avazzadeh

List of Publications by Year
in descending order

117 papers	2,255 citations	201575 27 h-index	330025 37 g-index
118 all docs	118 docs citations	118 times ranked	745 citing authors

#	Article	IF	Citations
1	Numerical solution of fractional telegraph equation by using radial basis functions. Engineering Analysis With Boundary Elements, 2014, 38, 31-39.	2.0	129
2	Chebyshev cardinal wavelets and their application in solving nonlinear stochastic differential equations with fractional Brownian motion. Communications in Nonlinear Science and Numerical Simulation, 2018, 64, 98-121.	1.7	64
3	A new Wavelet Method for Variableâ€Order Fractional Optimal Control Problems. Asian Journal of Control, 2018, 20, 1804-1817.	1.9	64
4	A wavelet approach for solving multi-term variable-order time fractional diffusion-wave equation. Applied Mathematics and Computation, 2019, 341, 215-228.	1.4	57
5	A computational method for solving variable-order fractional nonlinear diffusion-wave equation. Applied Mathematics and Computation, 2019, 352, 235-248.	1.4	51
6	Chebyshev cardinal wavelets for nonlinear stochastic differential equations driven with variable-order fractional Brownian motion. Chaos, Solitons and Fractals, 2019, 124, 105-124.	2.5	50
7	Numerical approximation of the nonlinear time-fractional telegraph equation arising in neutron transport. Communications in Nonlinear Science and Numerical Simulation, 2021, 99, 105755.	1.7	50
8	Legendre wavelets optimization method for variable-order fractional Poisson equation. Chaos, Solitons and Fractals, 2018, 112, 180-190.	2.5	49
9	Numerical approach for modeling fractional heat conduction in porous medium with the generalized Cattaneo model. Applied Mathematical Modelling, 2021, 100, 107-124.	2.2	45
10	A computational wavelet method for variable-order fractional model of dual phase lag bioheat equation. Journal of Computational Physics, 2019, 395, 1-18.	1.9	44
11	Numerical approach for solving variable-order spaceâ€“time fractional telegraph equation using transcendental Bernstein series. Engineering With Computers, 2020, 36, 867-878.	3.5	43
12	A local stabilized approach for approximating the modified time-fractional diffusion problem arising in heat and mass transfer. Journal of Advanced Research, 2021, 32, 45-60.	4.4	42
13	Numerical simulation of fractional evolution model arising in viscoelastic mechanics. Applied Numerical Mathematics, 2021, 169, 303-320.	1.2	40
14	Numerical study of the nonlinear anomalous reactionâ€“subdiffusion process arising in the electroanalytical chemistry. Journal of Computational Science, 2021, 53, 101394.	1.5	39
15	An improved localized radial basis-pseudospectral method for solving fractional reactionâ€“subdiffusion problem. Results in Physics, 2021, 23, 104048.	2.0	38
16	An operational matrix method for solving variable-order fractional biharmonic equation. Computational and Applied Mathematics, 2018, 37, 4397-4411.	1.3	37
17	Testing the difference between spectral densities of two independent periodically correlated (cyclostationary) time series models. Communications in Statistics - Theory and Methods, 2019, 48, 2320-2328.	0.6	37
18	On the asymptotic distribution for the periodograms of almost periodically correlated (cyclostationary) processes. , 2018, 81, 186-197.		36

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19	Two-Dimensional Legendre Wavelets for Solving Variable-Order Fractional Nonlinear Advection-Diffusion Equation with Variable Coefficients. International Journal of Nonlinear Sciences and Numerical Simulation, 2018, 19, 793-802.	0.4	34
20	Soliton solutions of the nonlinear sine-Gordon model with Neumann boundary conditions arising in crystal dislocation theory. Nonlinear Dynamics, 2021, 106, 783-813.	2.7	34
21	Numerical evaluation of fractional Tricomi-type model arising from physical problems of gas dynamics. Journal of Advanced Research, 2020, 25, 205-216.	4.4	33
22	An efficient local meshless approach for solving nonlinear time-fractional fourth-order diffusion model. Journal of King Saud University - Science, 2021, 33, 101243.	1.6	33
23	Numerical solution of Fredholm integral equations of the second kind by using integral mean value theorem II. High dimensional problems. Applied Mathematical Modelling, 2013, 37, 432-442.	2.2	32
24	Numerical solution of Fredholm integral equations of the second kind by using integral mean value theorem. Applied Mathematical Modelling, 2011, 35, 2374-2383.	2.2	31
25	A wavelet method to solve nonlinear variable-order time fractional 2D Kleinâ€“Gordon equation. Computers and Mathematics With Applications, 2019, 78, 3713-3730.	1.4	31
26	Numerical investigation of fractional nonlinear sine-Gordon and Klein-Gordon models arising in relativistic quantum mechanics. Engineering Analysis With Boundary Elements, 2020, 120, 223-237.	2.0	31
27	An efficient localized meshless technique for approximating nonlinear sinh-Gordon equation arising in surface theory. Engineering Analysis With Boundary Elements, 2021, 130, 268-285.	2.0	31
28	An efficient local meshless method for the equal width equation in fluid mechanics. Engineering Analysis With Boundary Elements, 2021, 131, 258-268.	2.0	31
29	Goodness of fit test for almost cyclostationary processes. , 2020, 96, 102597.		29
30	Coupling of the Crankâ€“Nicolson scheme and localized meshless technique for viscoelastic wave model in fluid flow. Journal of Computational and Applied Mathematics, 2021, 398, 113695.	1.1	29
31	Solitary Wave Solutions of the Generalized Rosenau-KdV-RLW Equation. Mathematics, 2020, 8, 1601.	1.1	28
32	The impact of LRBF-FD on the solutions of the nonlinear regularized long wave equation. Mathematical Sciences, 2021, 15, 365-376.	1.0	27
33	Soliton wave solutions of nonlinear mathematical models in elastic rods and bistable surfaces. Engineering Analysis With Boundary Elements, 2022, 143, 14-27.	2.0	27
34	Orthonormal shifted discrete Legendre polynomials for solving a coupled system of nonlinear variable-order time fractional reaction-advection-diffusion equations. Applied Numerical Mathematics, 2021, 161, 425-436.	1.2	26
35	A localisation technique based on radial basis function partition of unity for solving Sobolev equation arising in fluid dynamics. Applied Mathematics and Computation, 2021, 401, 126063.	1.4	26
36	Numerical treatment of the strongly coupled nonlinear fractal-fractional SchrÃ¶dinger equations through the shifted Chebyshev cardinal functions. AEJ - Alexandria Engineering Journal, 2020, 59, 2037-2052.	3.4	25

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37	An operational matrix method for nonlinear variable-order time fractional reactionâ€“diffusion equation involving Mittag-Leffler kernel. European Physical Journal Plus, 2020, 135, 1.	1.2	25
38	A wavelet approach for the multi-term time fractional diffusion-wave equation. International Journal of Computer Mathematics, 2019, 96, 640-661.	1.0	24
39	Solving Two-Dimensional Variable-Order Fractional Optimal Control Problems With Transcendental Bernstein Series. Journal of Computational and Nonlinear Dynamics, 2019, 14, .	0.7	23
40	A locally stabilized radial basis function partition of unity technique for the sineâ€“Gordon system in nonlinear optics. Mathematics and Computers in Simulation, 2022, 199, 394-413.	2.4	23
41	An effective numerical method for solving nonlinear variable-order fractional functional boundary value problems through optimization technique. Nonlinear Dynamics, 2019, 97, 2041-2054.	2.7	22
42	Generalized shifted Chebyshev polynomials: Solving a general class of nonlinear variable order fractional PDE. Communications in Nonlinear Science and Numerical Simulation, 2020, 85, 105229.	1.7	22
43	Transcendental Bernstein series for solving nonlinear variable order fractional optimal control problems. Applied Mathematics and Computation, 2019, 362, 124563.	1.4	20
44	Dynamics of respiratory droplets carrying SARS-CoV-2 virus in closed atmosphere. Results in Physics, 2020, 19, 103482.	2.0	20
45	Diamagnetic susceptibility of an off-center hydrogenic donor in pyramid-like and cone-like quantum dots. European Physical Journal Plus, 2016, 131, 1.	1.2	19
46	Legendre wavelets for fractional partial integro-differential viscoelastic equations with weakly singular kernelsâ‹†. European Physical Journal Plus, 2019, 134, 1.	1.2	19
47	Dynamics and bifurcations of a discrete-time prey-predator model with Allee effect on the prey population. Ecological Complexity, 2021, 48, 100962.	1.4	19
48	A computational method for solving twoâ€dimensional nonlinear variableâ€order fractional optimal control problems. Asian Journal of Control, 2020, 22, 1112-1126.	1.9	18
49	NUMERICAL TREATMENT OF THE SPACEâ€“TIME FRACTALâ€“FRACTIONAL MODEL OF NONLINEAR ADVECTIONâ€“DIFFUSIONâ€–REACTION EQUATION THROUGH THE BERNSTEIN POLYNOMIALS. Fractals, 2020, 28, 2040001.	1.8	18
50	New formulation of the orthonormal Bernoulli polynomials for solving the variable-order time fractional coupled Boussinesqâ€“Burgerâ€™s equations. Engineering With Computers, 2021, 37, 3509-3517.	3.5	17
51	Numerical solution of nonlinear fractalâ€fractional optimal control problems by Legendre polynomials. Mathematical Methods in the Applied Sciences, 2021, 44, 2952-2963.	1.2	17
52	Chebyshev polynomials for the numerical solution of fractalâ€“fractional model of nonlinear Ginzburgâ€“Landau equation. Engineering With Computers, 2021, 37, 1377-1388.	3.5	16
53	Numerical study of non-singular variable-order time fractional coupled Burgersâ€™ equations by using the Hahn polynomials. Engineering With Computers, 2022, 38, 101-110.	3.5	15
54	Numerical study of the variable-order fractional version of the nonlinear fourth-order 2D diffusion-wave equation via 2D Chebyshev wavelets. Engineering With Computers, 2021, 37, 3319-3328.	3.5	15

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55	Numerical treatment of microscale heat transfer processes arising in thin films of metals. International Communications in Heat and Mass Transfer, 2022, 132, 105892.	2.9	15
56	A cardinal method to solve coupled nonlinear variable-order time fractional sine-Gordon equations. Computational and Applied Mathematics, 2020, 39, 1.	1.0	14
57	Generic and symmetric bifurcations analysis of a three dimensional economic model. Chaos, Solitons and Fractals, 2020, 140, 110251.	2.5	14
58	An approximate approach for the generalized variable-order fractional pantograph equation. AEJ - Alexandria Engineering Journal, 2020, 59, 2347-2354.	3.4	14
59	A hybrid method based on the orthogonal Bernoulli polynomials and radial basis functions for variable order fractional reaction-advection-diffusion equation. Engineering Analysis With Boundary Elements, 2021, 127, 18-28.	2.0	14
60	Localized kernelâ€based meshless method for pricing financial options underlying fractal transmission system. Mathematical Methods in the Applied Sciences, 0, , .	1.2	14
61	A meshless approach for solving nonlinear variable-order time fractional 2D Ginzburg-Landau equation. Engineering Analysis With Boundary Elements, 2020, 120, 166-179.	2.0	13
62	Chebyshevâ€“Gaussâ€“Lobatto collocation method for variable-order time fractional generalized Hirotaâ€“Satsuma coupled KdV system. Engineering With Computers, 2022, 38, 1835-1844.	3.5	13
63	THE NUMERICAL TREATMENT OF NONLINEAR FRACTALâ€“FRACTIONAL 2D EMDENâ€“FOWLER EQUATION UTILIZING 2D CHELYSHKOV POLYNOMIALS. Fractals, 2020, 28, 2040042.	1.8	12
64	Orthonormal Bernstein polynomials for solving nonlinear variableâ€order time fractional fourthâ€order diffusionâ€wave equation with nonsingular fractional derivative. Mathematical Methods in the Applied Sciences, 2021, 44, 3098-3110.	1.2	12
65	Optimal control of hyperthermia thermal damage based on tumor configuration. Results in Physics, 2021, 23, 103992.	2.0	12
66	Optimal Solution of a Fractional HIV/AIDS Epidemic Mathematical Model. Journal of Computational Biology, 2022, 29, 276-291.	0.8	12
67	Efficient alternating direction implicit numerical approaches for multi-dimensional distributed-order fractional integro differential problems. Computational and Applied Mathematics, 2022, 41, .	1.0	12
68	Numerical solution of variable-order space-time fractional KdVâ€“Burgersâ€“Kuramoto equation by using discrete Legendre polynomials. Engineering With Computers, 2022, 38, 859-869.	3.5	11
69	An efficient wavelet-based approximation method for the coupled nonlinear fractalâ€“fractional 2D SchrÃ¶dinger equations. Engineering With Computers, 2021, 37, 2129.	3.5	11
70	A numerical method based on the Chebyshev cardinal functions for variableâ€order fractional version of the fourthâ€order 2D Kuramotoâ€Sivashinsky equation. Mathematical Methods in the Applied Sciences, 2021, 44, 1831-1842.	1.2	11
71	Vieta-Lucas polynomials for the coupled nonlinear variable-order fractional Ginzburg-Landau equations. Applied Numerical Mathematics, 2021, 165, 442-458.	1.2	11
72	Optimal solution of the fractional order breast cancer competition model. Scientific Reports, 2021, 11, 15622.	1.6	11

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73	Numerical simulation of a degenerate parabolic problem occurring in the spatial diffusion of biological population. Chaos, Solitons and Fractals, 2021, 151, 111220.	2.5	11
74	Discrete Chebyshev polynomials for nonsingular variableâ€•order fractional KdV Burgers' equation. Mathematical Methods in the Applied Sciences, 2021, 44, 2158-2170.	1.2	11
75	Solution for generalized fuzzy fractional Kortewege-de Varies equationÂusing a robust fuzzy double parametric approach. Journal of Ocean Engineering and Science, 2023, 8, 602-622.	1.7	11
76	Generalized Bernoulli Polynomials: Solving Nonlinear 2D Fractional Optimal Control Problems. Journal of Scientific Computing, 2020, 83, 1.	1.1	10
77	Transcendental Bernstein series for solving reactionâ€“diffusion equations with nonlocal boundary conditions through the optimization technique. Numerical Methods for Partial Differential Equations, 2019, 35, 2258-2274.	2.0	9
78	Orthonormal shifted discrete Chebyshev polynomials: Application for a fractal-fractional version of the coupled SchrÃ¶dinger-Boussinesq system. Chaos, Solitons and Fractals, 2021, 143, 110570.	2.5	9
79	A meshless technique based on the moving least squares shape functions for nonlinear fractal-fractional advection-diffusion equation. Engineering Analysis With Boundary Elements, 2021, 127, 8-17.	2.0	9
80	Orthonormal piecewise Bernoulli functions: Application for optimal control problems generated using fractional integro-differential equations. JVC/Journal of Vibration and Control, 2023, 29, 1164-1175.	1.5	9
81	The Coupling of RBF and FDM for Solving Higher Order Fractional Partial Differential Equations. Applied Mechanics and Materials, 0, 598, 409-413.	0.2	8
82	Chebyshev wavelets operational matrices for solving nonlinear variable-order fractional integral equations. Advances in Difference Equations, 2020, 2020, .	3.5	8
83	An accurate localized meshfree collocation technique for the telegraph equation in propagation of electrical signals. Engineering With Computers, 2023, 39, 2327-2344.	3.5	8
84	Gravitational Field effects on the Decoherence Process and the Quantum Speed Limit. Scientific Reports, 2017, 7, 15046.	1.6	7
85	Chebyshev Cardinal Functions for Solving Age-Structured Population Models. International Journal of Applied and Computational Mathematics, 2017, 3, 2139-2149.	0.9	7
86	A direct computational method for nonlinear variableâ€•order fractional delay optimal control problems. Asian Journal of Control, 2021, 23, 2709-2718.	1.9	7
87	A hybrid approach established upon the MÃ¼ntzâ€Legender functions and 2D MÃ¼ntzâ€Legender wavelets for fractional Sobolev equation. Mathematical Methods in the Applied Sciences, 2022, 45, 5304-5320.	1.2	7
88	Energy gap renormalization and diamagnetic susceptibility in quantum wires with different cross-sectional shape. Journal of Computational Electronics, 2016, 15, 931-938.	1.3	6
89	Traveling wave solutions of the nonlinear Gilsonâ€“Pickering equationÂin crystal lattice theory. Journal of Ocean Engineering and Science, 2024, 9, 40-49.	1.7	6
90	Haar wavelet method for solving nonlinear age-structured population models. International Journal of Biomathematics, 2017, 10, 1750114.	1.5	5

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91	Chebyshev cardinal functions for a new class of nonlinear optimal control problems with dynamical systems of weakly singular variable-order fractional integral equations. JVC/Journal of Vibration and Control, 2020, 26, 713-723.	1.5	5
92	Taylorâ€™s series expansion method for nonlinear variable-order fractional 2D optimal control problems. AEJ - Alexandria Engineering Journal, 2020, 59, 4737-4743.	3.4	5
93	Jacobiâ€“Gaussâ€“Lobatto collocation approach for non-singular variable-order time fractional generalized Kuramotoâ€“Sivashinsky equation. Engineering With Computers, 0, , 1.	3.5	5
94	Numerical investigation of variableâ€order fractional Benjaminâ€“Bonaâ€“Mahonyâ€“Burgers equation using a pseudoâ€spectral method. Mathematical Methods in the Applied Sciences, 2021, 44, 8669-8683.	1.2	5
95	Orthonormal Bernoulli polynomials for spaceâ€“time fractal-fractional modified Benjaminâ€“Bonaâ€“Mahony type equations. Engineering With Computers, 2022, 38, 3483-3496.	3.5	5
96	Complex dynamics of a Kaldor model of business cycle with discrete-time. Chaos, Solitons and Fractals, 2022, 157, 111863.	2.5	5
97	Numerical Approximation of the Fractional Rayleighâ€“Stokes Problem Arising in a Generalised Maxwell Fluid. Fractal and Fractional, 2022, 6, 377.	1.6	5
98	Dynamics and bifurcations of a discrete time neural network with self connection. European Journal of Control, 2022, 66, 100642.	1.6	4
99	Solving a category of twoâ€dimensional fractional optimal control problems using discrete Legendre polynomials. Asian Journal of Control, 2023, 25, 551-562.	1.9	4
100	Numerical analysis of time-fractional Sobolev equation for fluid-driven processes in impermeable rocks. , 2022, 2022, .		4
101	An efficient iterative approach for three-dimensional modified anomalous fractional sub-diffusion equations on a large domain. Advances in Difference Equations, 2019, 2019, .	3.5	3
102	Fibonacci polynomials for the numerical solution of variableâ€order spaceâ€time fractional Burgersâ€Huxley equation. Mathematical Methods in the Applied Sciences, 2021, 44, 6774-6786.	1.2	3
103	Shifted Jacobi polynomials for nonlinear singular variable-order time fractional Emdenâ€“Fowler equation generated by derivative with non-singular kernel. Advances in Difference Equations, 2021, 2021, .	3.5	3
104	Optimal solution of the fractional-order smoking model and its public health implications. Nonlinear Dynamics, 2022, 108, 2815-2831.	2.7	3
105	A new hybrid method for two dimensional nonlinear variable order fractional optimal control problems. Asian Journal of Control, 2021, 23, 2004-2018.	1.9	2
106	Shifted Vietaâ€Fibonacci polynomials for the fractalâ€fractional fifthâ€order KdV equation. Mathematical Methods in the Applied Sciences, 2021, 44, 6716-6730.	1.2	2
107	Orthonormal shifted discrete Hahn polynomials for a new category of nonlinear variableâ€order fractional 2D optimal control problems. Asian Journal of Control, 0, , .	1.9	2
108	Optimal solution of a general class of nonlinear system of fractional partial differential equations using hybrid functions. Engineering With Computers, 2023, 39, 2401-2431.	3.5	2

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109	Barycentricâ€“Legendre Interpolation Method for Solving Two-Dimensional Fractional Cable Equation in Neuronal Dynamics. International Journal of Applied and Computational Mathematics, 2022, 8, .	0.9	2
110	Twoâ€parameter bifurcation analysis of the discrete Lorenz model. Mathematical Methods in the Applied Sciences, 0, , .	1.2	2
111	A hybrid wavelet-meshless method for variable-order fractional regularized long-wave equation. Engineering Analysis With Boundary Elements, 2022, 142, 61-70.	2.0	2
112	Exponential Convergence for Numerical Solution of Integral Equations Using Radial Basis Functions. Journal of Applied Mathematics, 2014, 2014, 1-9.	0.4	1
113	A hybrid method for variable-order fractional 2D optimal control problems on an unbounded domain. Engineering With Computers, 0, , 1.	3.5	1
114	An improvement of Laguerre computational scheme for solving nonlinear age-structured population models. Journal of Mathematics and Computer Science, 2019, 19, 268-287.	0.5	1
115	Chebyshev cardinal functions for solving obstacle boundary value problems. , 2016, , .		0
116	Relation Between New Rooted Trees and Derivatives of Differential Equations. Iranian Journal of Science and Technology, Transaction A: Science, 2021, 45, 1025-1036.	0.7	0
117	Numerical approach for solving two dimensional fractal-fractional PDEs using peridynamic method. International Journal of Computer Mathematics, 2022, 99, 486-505.	1.0	0