Ahmad Golbabai

List of Publications by Year
in descending order

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Version: 2024-02-01

65 papers	1,620 citations	236833 25 h-index	330025 37 g-index
65 all docs	65 docs citations	65 times ranked	969 citing authors

#	Article	IF	Citations
1	Numerical solution of time-fractional fourth-order reaction-diffusion model arising in composite environments. Applied Mathematical Modelling, 2021, 89, 819-836.	2.2	37
2	Numerical evaluation of the fractional Kleinâ€“Kramers model arising in molecular dynamics. Journal of Computational Physics, 2021, 428, 109983.	1.9	23
3	A Computational Method Based on the Moving Least-Squares Approach for Pricing Double Barrier Options in a Time-Fractional Blackâ€“Scholes Model. Computational Economics, 2020, 55, 119-141.	1.5	47
4	A projection-based recurrent neural network and its application in solving convex quadratic bilevel optimization problems. Neural Computing and Applications, 2020, 32, 3887-3900.	3.2	7
5	Numerical approach for modeling fractal mobile/immobile transport model in porous and fractured media. International Communications in Heat and Mass Transfer, 2020, 111, 104443.	2.9	40
6	Numerical solution of the fractional Rayleighâ€“Stokes model arising in a heated generalized second-grade fluid. Engineering With Computers, 2020, 37, 1751.	3.5	28
7	Numerical analysis of the fractional evolution model for heat flow in materials with memory. AEJ - Alexandria Engineering Journal, 2020, 59, 2627-2637.	3.4	44
8	Numerical investigation of the nonlinear modified anomalous diffusion process. Nonlinear Dynamics, 2019, 97, 2757-2775.	2.7	28
9	Solitary wave solution of the nonlinear KdV-Benjamin-Bona-Mahony-Burgers model via two meshless methods. European Physical Journal Plus, 2019, 134, 1.	1.2	28
10	Numerical analysis of time fractional Blackâ€“Scholes European option pricing model arising in financial market. Computational and Applied Mathematics, 2019, 38, 1.	1.0	68
11	Numerical Investigation of the Time Fractional Mobile-Immobile Advection-Dispersion Model Arising from Solute Transport in Porous Media. International Journal of Applied and Computational Mathematics, 2019, 5, 1.	0.9	31
12	Analysis on the upwind local radial basis functions method to solve convection dominated problems and itâ€™s application for MHD flow. Engineering Analysis With Boundary Elements, 2019, 100, 59-67.	2.0	3
13	Improved localized radial basis functions with fitting factor for dominated convection-diffusion differential equations. Engineering Analysis With Boundary Elements, 2018, 92, 124-135.	2.0	9
14	Rational Chebyshev collocation method for the similarity solution of two dimensional stagnation point flow. Indian Journal of Pure and Applied Mathematics, 2018, 49, 505-519.	0.3	1
15	A New Stable Local Radial Basis Function Approach for Option Pricing. Computational Economics, 2017, 49, 271-288.	1.5	12
16	A high-performance nonlinear dynamic scheme for the solution of equilibrium constrained optimization problems. Expert Systems With Applications, 2017, 82, 291-300.	4.4	5
17	A new method for evaluating options based on multiquadric RBF-FD method. Applied Mathematics and Computation, 2017, 308, 130-141.	1.4	14
18	Computing a numerical solution of two dimensional non-linear SchrÃ¶dinger equation on complexly shaped domains by RBF based differential quadrature method. Journal of Computational Physics, 2016, 322, 586-602.	1.9	11

#	Article	IF	Citations
19	Note on Using Radial Basis Functions Method for Solving Nonlinear Integral Equations. Communications in Numerical Analysis, 2016, 2016, 81-91.	0.1	8
20	Stability and convergence of radial basis function finite difference method for the numerical solution of the reactionâ€“diffusion equations. Applied Mathematics and Computation, 2015, 271, 567-580.	1.4	7
21	An efficient method based on operational matrices of Bernoulli polynomials for solving matrix differential equations. Computational and Applied Mathematics, 2015, 34, 159-175.	1.3	13
22	An Improved RBF Method for Solving Variational Problems Arising from Dynamic Economic Models. Computational Economics, 2015, 46, 275-285.	1.5	2
23	On the new variable shape parameter strategies for radial basis functions. Computational and Applied Mathematics, 2015, 34, 691-704.	1.3	34
24	A Highly Accurate Finite Element Method to Price Discrete Double Barrier Options. Computational Economics, 2014, 44, 153-173.	1.5	29
25	Application of the optimal homotopy asymptotic method for solving a strongly nonlinear oscillatory system. Mathematical and Computer Modelling, 2013, 58, 1837-1843.	2.0	18
26	Superconvergence of the finite element solutions of the Blackâ€“Scholes equation. Finance Research Letters, 2013, 10, 17-26.	3.4	13
27	Hybrid shape parameter strategy for the RBF approximation of vibrating systems. International Journal of Computer Mathematics, 2012, 89, 2410-2427.	1.0	14
28	A meshfree method based on radial basis functions for the eigenvalues of transient Stokes equations. Engineering Analysis With Boundary Elements, 2012, 36, 1555-1559.	2.0	17
29	Solitary pattern solutions for fractional Zakharovâ€“Kuznetsov equations with fully nonlinear dispersion. Applied Mathematics Letters, 2012, 25, 757-766.	1.5	10
30	Analysis of differential equations of fractional order. Applied Mathematical Modelling, 2012, 36, 4356-4364.	2.2	18
31	Radial basis functions with application to finance: American put option under jump diffusion. Mathematical and Computer Modelling, 2012, 55, 1354-1362.	2.0	44
32	A meshless method for numerical solution of the coupled SchrÃ¶dinger-KdV equations. Computing (Vienna/New York), 2011, 92, 225-242.	3.2	23
33	Analytical treatment of differential equations with fractional coordinate derivatives. Computers and Mathematics With Applications, 2011, 62, 1003-1012.	1.4	17
34	Fractional calculus â€” A new approach to the analysis of generalized fourth-order diffusionâ€“wave equations. Computers and Mathematics With Applications, 2011, 61, 2227-2231.	1.4	51
35	Analytical modelling of fractional advectionâ€“dispersion equation defined in a bounded space domain. Mathematical and Computer Modelling, 2011, 53, 1708-1718.	2.0	39
36	A numerical method for diffusionâ€“convection equation using high-order difference schemes. Computer Physics Communications, 2010, 181, 1224-1230.	3.0	9

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37	Homotopy analysis method for solving multi-term linear and nonlinear diffusionâ€“wave equations of fractional order. Computers and Mathematics With Applications, 2010, 59, 1337-1344.	1.4	58
38	A new domain decomposition algorithm for generalized Burgerâ€™sâ€“Huxley equation based on Chebyshev polynomials and preconditioning. Chaos, Solitons and Fractals, 2009, 39, 849-857.	2.5	56
39	A spectral domain decomposition approach for the generalized Burgerâ€™sâ€“Fisher equation. Chaos, Solitons and Fractals, 2009, 39, 385-392.	2.5	45
40	Solution of non-linear Fredholm integral equations of the first kind using modified homotopy perturbation method. Chaos, Solitons and Fractals, 2009, 39, 2316-2321.	2.5	18
41	Modified homotopy perturbation method for solving non-linear Fredholm integral equations. Chaos, Solitons and Fractals, 2009, 40, 1408-1412.	2.5	22
42	Solving a system of nonlinear integral equations by an RBF network. Computers and Mathematics With Applications, 2009, 57, 1651-1658.	1.4	52
43	Exact and numerical solitary wave solutions of generalized Zakharov equation by the variational iteration method. Chaos, Solitons and Fractals, 2008, 36, 309-313.	2.5	38
44	Modified homotopy perturbation method for solving Fredholm integral equations. Chaos, Solitons and Fractals, 2008, 37, 1528-1537.	2.5	63
45	Easy computational approach to solution of system of linear Fredholm integral equations. Chaos, Solitons and Fractals, 2008, 38, 568-574.	2.5	10
46	Normalized RBF networks: application to a system of integral equations. Physica Scripta, 2008, 78, 015008.	1.2	5
47	A variational iteration method for solving parabolic partial differential equations. Computers and Mathematics With Applications, 2007, 54, 987-992.	1.4	22
48	Construction of a solitary wave solution for the generalized Zakharov equation by a variational iteration method. Computers and Mathematics With Applications, 2007, 54, 1003-1009.	1.4	18
49	Radial basis function networks in the numerical solution of linear integro-differential equations. Applied Mathematics and Computation, 2007, 188, 427-432.	1.4	35
50	A numerical solution for solving system of Fredholm integral equations by using homotopy perturbation method. Applied Mathematics and Computation, 2007, 189, 1921-1928.	1.4	43
51	A numerical solution for non-classical parabolic problem based on Chebyshev spectral collocation method. Applied Mathematics and Computation, 2007, 190, 179-185.	1.4	24
52	Application of Heâ€™s homotopy perturbation method for nth-order integro-differential equations. Applied Mathematics and Computation, 2007, 190, 1409-1416.	1.4	38
53	A new family of iterative methods for solving system of nonlinear algebric equations. Applied Mathematics and Computation, 2007, 190, 1717-1722.	1.4	29
54	New iterative methods for nonlinear equations by modified HPM. Applied Mathematics and Computation, 2007, 191, 122-127.	1.4	5

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55	A third-order Newton type method for nonlinear equations based on modified homotopy perturbation method. Applied Mathematics and Computation, 2007, 191, 199-205.	1.4	25
56	Application of homotopy perturbation method for solving eighth-order boundary value problems. Applied Mathematics and Computation, 2007, 191, 334-346.	1.4	61
57	Newton-like iterative methods for solving system of non-linear equations. Applied Mathematics and Computation, 2007, 192, 546-551.	1.4	22
58	Numerical studies on nonlinear SchrÃ¶dinger equations by spectral collocation method with preconditioning. Journal of Mathematical Analysis and Applications, 2007, 333, 1119-1127.	0.5	38
59	Numerical solution of the second kind integral equations using radial basis function networks. Applied Mathematics and Computation, 2006, 174, 877-883.	1.4	52
60	An iterative solution for the second kind integral equations using radial basis functions. Applied Mathematics and Computation, 2006, 181, 903-907.	1.4	15
61	MULTIPLE SCALE PROCEDURE IN LAPLACE TRANSFORM SPACE FOR SOLUTION OF WEAKLY NONLINEAR WAVE EQUATION. , 2005, , .		0
62	NON-PARALLEL PLANE RAYLEIGH BENARD CONVECTION IN CYLINDRICAL GEOMETRY. Tamkang Journal of Mathematics, 1992, 23, 171-185.	0.3	0
63	Finite amplitude axisymmetric convection between rigid rotating planes. Journal of Computational and Applied Mathematics, 1986, 16, 355-369.	1.1	1
64	Phase-winding Solutions for Axisymmetric Convection between Rotating Planes Uniformly Heated from Below. IMA Journal of Applied Mathematics, 1986, 36, 177-189.	0.8	0
65	Numerical approximation of the time fractional cable model arising in neuronal dynamics. Engineering With Computers, 0, , 1.	3.5	23