Ahmad Golbabai

List of Publications by Year
in descending order

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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 analysis of time fractional Blackâ€“Scholes European option pricing model arising in financial market. Computational and Applied Mathematics, 2019, 38, 1.	1.0	68
2	Modified homotopy perturbation method for solving Fredholm integral equations. Chaos, Solitons and Fractals, 2008, 37, 1528-1537.	2.5	63
3	Application of homotopy perturbation method for solving eighth-order boundary value problems. Applied Mathematics and Computation, 2007, 191, 334-346.	1.4	61
4	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
5	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
6	Numerical solution of the second kind integral equations using radial basis function networks. Applied Mathematics and Computation, 2006, 174, 877-883.	1.4	52
7	Solving a system of nonlinear integral equations by an RBF network. Computers and Mathematics With Applications, 2009, 57, 1651-1658.	1.4	52
8	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
9	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
10	A spectral domain decomposition approach for the generalized Burgerâ€™sâ€“Fisher equation. Chaos, Solitons and Fractals, 2009, 39, 385-392.	2.5	45
11	Radial basis functions with application to finance: American put option under jump diffusion. Mathematical and Computer Modelling, 2012, 55, 1354-1362.	2.0	44
12	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
13	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
14	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
15	Analytical modelling of fractional advectionâ€“dispersion equation defined in a bounded space domain. Mathematical and Computer Modelling, 2011, 53, 1708-1718.	2.0	39
16	Application of Heâ€™s homotopy perturbation method for nth-order integro-differential equations. Applied Mathematics and Computation, 2007, 190, 1409-1416.	1.4	38
17	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
18	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

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19	Numerical solution of time-fractional fourth-order reaction-diffusion model arising in composite environments. Applied Mathematical Modelling, 2021, 89, 819-836.	2.2	37
20	Radial basis function networks in the numerical solution of linear integro-differential equations. Applied Mathematics and Computation, 2007, 188, 427-432.	1.4	35
21	On the new variable shape parameter strategies for radial basis functions. Computational and Applied Mathematics, 2015, 34, 691-704.	1.3	34
22	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
23	A new family of iterative methods for solving system of nonlinear algebric equations. Applied Mathematics and Computation, 2007, 190, 1717-1722.	1.4	29
24	A Highly Accurate Finite Element Method to Price Discrete Double Barrier Options. Computational Economics, 2014, 44, 153-173.	1.5	29
25	Numerical investigation of the nonlinear modified anomalous diffusion process. Nonlinear Dynamics, 2019, 97, 2757-2775.	2.7	28
26	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
27	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
28	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
29	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
30	A meshless method for numerical solution of the coupled SchrÃ¶dinger-KdV equations. Computing (Vienna/New York), 2011, 92, 225-242.	3.2	23
31	Numerical evaluation of the fractional Kleinâ€“Kramers model arising in molecular dynamics. Journal of Computational Physics, 2021, 428, 109983.	1.9	23
32	Numerical approximation of the time fractional cable model arising in neuronal dynamics. Engineering With Computers, 0, , 1.	3.5	23
33	A variational iteration method for solving parabolic partial differential equations. Computers and Mathematics With Applications, 2007, 54, 987-992.	1.4	22
34	Newton-like iterative methods for solving system of non-linear equations. Applied Mathematics and Computation, 2007, 192, 546-551.	1.4	22
35	Modified homotopy perturbation method for solving non-linear Fredholm integral equations. Chaos, Solitons and Fractals, 2009, 40, 1408-1412.	2.5	22
36	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

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37	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
38	Analysis of differential equations of fractional order. Applied Mathematical Modelling, 2012, 36, 4356-4364.	2.2	18
39	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
40	Analytical treatment of differential equations with fractional coordinate derivatives. Computers and Mathematics With Applications, 2011, 62, 1003-1012.	1.4	17
41	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
42	An iterative solution for the second kind integral equations using radial basis functions. Applied Mathematics and Computation, 2006, 181, 903-907.	1.4	15
43	Hybrid shape parameter strategy for the RBF approximation of vibrating systems. International Journal of Computer Mathematics, 2012, 89, 2410-2427.	1.0	14
44	A new method for evaluating options based on multiquadric RBF-FD method. Applied Mathematics and Computation, 2017, 308, 130-141.	1.4	14
45	Superconvergence of the finite element solutions of the Blackâ€“Scholes equation. Finance Research Letters, 2013, 10, 17-26.	3.4	13
46	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
47	A New Stable Local Radial Basis Function Approach for Option Pricing. Computational Economics, 2017, 49, 271-288.	1.5	12
48	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
49	Easy computational approach to solution of system of linear Fredholm integral equations. Chaos, Solitons and Fractals, 2008, 38, 568-574.	2.5	10
50	Solitary pattern solutions for fractional Zakharovâ€“Kuznetsov equations with fully nonlinear dispersion. Applied Mathematics Letters, 2012, 25, 757-766.	1.5	10
51	A numerical method for diffusionâ€“convection equation using high-order difference schemes. Computer Physics Communications, 2010, 181, 1224-1230.	3.0	9
52	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
53	Note on Using Radial Basis Functions Method for Solving Nonlinear Integral Equations. Communications in Numerical Analysis, 2016, 2016, 81-91.	0.1	8
54	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

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55	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
56	New iterative methods for nonlinear equations by modified HPM. Applied Mathematics and Computation, 2007, 191, 122-127.	1.4	5
57	Normalized RBF networks: application to a system of integral equations. Physica Scripta, 2008, 78, 015008.	1.2	5
58	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
59	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
60	An Improved RBF Method for Solving Variational Problems Arising from Dynamic Economic Models. Computational Economics, 2015, 46, 275-285.	1.5	2
61	Finite amplitude axisymmetric convection between rigid rotating planes. Journal of Computational and Applied Mathematics, 1986, 16, 355-369.	1.1	1
62	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
63	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
64	MULTIPLE SCALE PROCEDURE IN LAPLACE TRANSFORM SPACE FOR SOLUTION OF WEAKLY NONLINEAR WAVE EQUATION. , 2005, , .		0
65	NON-PARALLEL PLANE RAYLEIGH BENARD CONVECTION IN CYLINDRICAL GEOMETRY. Tamkang Journal of Mathematics, 1992, 23, 171-185.	0.3	0