Fazlollah Soleymani

List of Publications by Year
in descending order

147	2,174	257450 24	345221 36
papers	citations	h-index	g-index

148	148	148	929
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A real-time mathematical computer method for potato inspection using machine vision. Computers and Mathematics With Applications, 2012, 63, 268-279.	2.7	119
2	A new Bernoulli matrix method for solving high-order linear and nonlinear Fredholm integro-differential equations with piecewise intervals. Applied Mathematics and Computation, 2012, 219, 482-497.	2.2	84
3	Finding the solution of nonlinear equations by a class of optimal methods. Computers and Mathematics With Applications, 2012, 63, 764-774.	2.7	70
4	A multi-step class of iterative methods for nonlinear systems. Optimization Letters, 2014, 8, 1001-1015.	1.6	69
5	A hybrid neural network Imperialist Competitive Algorithm for skin color segmentation. Mathematical and Computer Modelling, 2013, 57, 848-856.	2.0	59
6	On a numerical technique for finding multiple zeros and its dynamic. Journal of the Egyptian Mathematical Society, 2013, 21, 346-353.	1.2	48
7	A computer-aided diagnosis system for malignant melanomas. Neural Computing and Applications, 2013, 23, 2059-2071.	5.6	47
8	On a New Method for Computing the Numerical Solution of Systems of Nonlinear Equations. Journal of Applied Mathematics, 2012, 2012, 1-15.	0.9	46
9	Two new classes of optimal Jarratt-type fourth-order methods. Applied Mathematics Letters, 2012, 25, 847-853.	2.7	43
10	Computing multiple zeros using a class of quartically convergent methods. AEJ - Alexandria Engineering Journal, 2013, 52, 531-541.	6.4	43
11	Optimal Steffensen-type methods with eighth order of convergence. Computers and Mathematics With Applications, 2011, 62, 4619-4626.	2.7	41
12	A class of numerical algorithms for computing outer inverses. Journal of Computational and Applied Mathematics, 2014, 263, 236-245.	2.0	38
13	An Improvement of Ostrowskiâ€™s and Kingâ€™s Techniques with Optimal Convergence Order Eight. Journal of Optimization Theory and Applications, 2012, 153, 225-236.	1.5	36
14	Semantic image classification by genetic algorithm using optimised fuzzy system based on Zernike moments. Signal, Image and Video Processing, 2014, 8, 831-842.	2.7	30
15	Dynamical analysis of iterative methods for nonlinear systems or how to deal with the dimension?. Applied Mathematics and Computation, 2014, 244, 398-412.	2.2	30
16	Some Iterative Methods Free from Derivatives and Their Basins of Attraction for Nonlinear Equations. Discrete Dynamics in Nature and Society, 2013, 2013, 1-10.	0.9	27
17	On a Novel Fourth-Order Algorithm for Solving Systems of Nonlinear Equations. Journal of Applied Mathematics, 2012, 2012, 1-12.	0.9	26
18	An optimized derivative-free form of the Potraâ€“PtÃ¡k method. Mathematical and Computer Modelling, 2012, 56, 97-104.	2.0	26

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19	Color image segmentation using neuro-fuzzy system in a novel optimized color space. Neural Computing and Applications, 2013, 23, 1513-1520.	5.6	26
20	On improved three-step schemes with high efficiency index and their dynamics. Numerical Algorithms, 2014, 65, 153-169.	1.9	26
21	Inverse multi-quadric RBF for computing the weights of FD method: Application to American options. Communications in Nonlinear Science and Numerical Simulation, 2018, 64, 74-88.	3.3	26
22	Some modifications of Kingâ€™s family with optimal eighth order of convergence. Mathematical and Computer Modelling, 2012, 55, 1373-1380.	2.0	25
23	An iterative method for computing the approximate inverse of a square matrix and the Mooreâ€“Penrose inverse of a non-square matrix. Applied Mathematics and Computation, 2013, 224, 671-680.	2.2	25
24	Several iterative methods with memory using self-accelerators. Applied Mathematics and Computation, 2015, 254, 452-458.	2.2	25
25	Accurate fourteenth-order methods for solving nonlinear equations. Numerical Algorithms, 2011, 58, 513-527.	1.9	24
26	Tau approximate solution of weakly singular Volterra integral equations. Mathematical and Computer Modelling, 2013, 57, 494-502.	2.0	24
27	Improved numerical solution of multi-asset option pricing problem: A localized RBF-FD approach. Chaos, Solitons and Fractals, 2019, 119, 298-309.	5.1	24
28	Numerically stable improved Chebyshevâ€“Halley type schemes for matrix sign function. Journal of Computational and Applied Mathematics, 2017, 318, 189-198.	2.0	23
29	A Higher Order Iterative Method for Computing the Drazin Inverse. Scientific World Journal, The, 2013, 2013, 1-11.	2.1	22
30	Basins of Attraction for Various Steffensen-Type Methods. Journal of Applied Mathematics, 2014, 2014, 1-17.	0.9	22
31	Numerical solution of nonlinear systems by a general class of iterative methods with application to nonlinear PDEs. Numerical Algorithms, 2014, 67, 223-242.	1.9	21
32	A fast convergent numerical method for matrix sign function with application in SDEs. Journal of Computational and Applied Mathematics, 2015, 282, 167-178.	2.0	21
33	On hyperpower family of iterations for computing outer inverses possessing high efficiencies. Linear Algebra and Its Applications, 2015, 484, 477-495.	0.9	21
34	An efficient computation of generalized inverse of a matrix. Applied Mathematics and Computation, 2018, 316, 89-101.	2.2	21
35	An accelerated iterative method for computing weighted Mooreâ€“Penrose inverse. Applied Mathematics and Computation, 2013, 222, 365-371.	2.2	20
36	On finding robust approximate inverses for large sparse matrices. Linear and Multilinear Algebra, 2014, 62, 1314-1334.	1.0	20

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37	Some Matrix Iterations for Computing Generalized Inverses and Balancing Chemical Equations. Algorithms, 2015, 8, 982-998.	2.1	20
38	On the construction of some tri-parametric iterative methods with memory. Numerical Algorithms, 2015, 70, 835-845.	1.9	20
39	A Rapid Numerical Algorithm to Compute Matrix Inversion. International Journal of Mathematics and Mathematical Sciences, 2012, 2012, 1-11.	0.7	19
40	ON A FAST ITERATIVE METHOD FOR APPROXIMATE INVERSE OF MATRICES. Communications of the Korean Mathematical Society, 2013, 28, 407-418.	0.2	19
41	A Class of Three-Step Derivative-Free Root Solvers with Optimal Convergence Order. Journal of Applied Mathematics, 2012, 2012, 1-15.	0.9	18
42	Higher order derivative-free iterative methods with and without memory for systems of nonlinear equations. Applied Mathematics and Computation, 2017, 314, 199-211.	2.2	18
43	Some optimal iterative methods and their with memory variants. Journal of the Egyptian Mathematical Society, 2013, 21, 133-141.	1.2	17
44	An improved Schulz-type iterative method for matrix inversion with application. Transactions of the Institute of Measurement and Control, 2014, 36, 983-991.	1.7	17
45	A fast convergent iterative solver for approximate inverse of matrices. Numerical Linear Algebra With Applications, 2014, 21, 439-452.	1.6	17
46	Iterative methods for nonlinear systems associated with finite difference approach in stochastic differential equations. Numerical Algorithms, 2016, 71, 89-102.	1.9	17
47	The Laplace Homotopy Analysis Method for Solving a General Fractional Diffusion Equation Arising in Nano-Hydrodynamics. Journal of Computational and Theoretical Nanoscience, 2013, 10, 33-36.	0.4	16
48	Regarding the accuracy of optimal eighth-order methods. Mathematical and Computer Modelling, 2011, 53, 1351-1357.	2.0	15
49	Robustness of Operational Matrices of Differentiation for Solving State-Space Analysis and Optimal Control Problems. Abstract and Applied Analysis, 2013, 2013, 1-9.	0.7	15
50	An efficient and stable Newton-type iterative method for computing generalized inverse A T , S (2) $A_{T,S}^{(2)}$. Numerical Algorithms, 2015, 69, 569-578.	1.9	15
51	A General Three-Step Class of Optimal Iterations for Nonlinear Equations. Mathematical Problems in Engineering, 2011, 2011, 1-10.	1.1	14
52	Construction of Optimal Derivative-Free Techniques without Memory. Journal of Applied Mathematics, 2012, 2012, 1-24.	0.9	14
53	Efficient optimal eighth-order derivative-free methods for nonlinear equations. Japan Journal of Industrial and Applied Mathematics, 2013, 30, 287-306.	0.9	14
54	Some Matrix Iterations for Computing Matrix Sign Function. Journal of Applied Mathematics, 2014, 2014, 1-9.	0.9	14

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55	An efficient matrix iteration for computing weighted Mooreâ€“Penrose inverse. Applied Mathematics and Computation, 2014, 226, 441-454.	2.2	14
56	A mixed derivative terms removing method in multi-asset option pricing problems. Applied Mathematics Letters, 2016, 60, 108-114.	2.7	14
57	A Local Radial Basis Function Method for High-Dimensional American Option Pricing Problems. Mathematical Modelling and Analysis, 2018, 23, 117-138.	1.5	14
58	Revisit of Jarratt method for solving nonlinear equations. Numerical Algorithms, 2011, 57, 377-388.	1.9	13
59	Approximating the Matrix Sign Function Using a Novel Iterative Method. Abstract and Applied Analysis, 2014, 2014, 1-9.	0.7	13
60	A note on the stability of a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" display="inline" overflow="scroll"><mml:mi>p</mml:mi></mml:math>th order iteration for finding generalized inverses. Applied Mathematics Letters, 2014, 28, 77-81.	2.7	13
61	Pricing multi-asset option problems: a Chebyshev pseudo-spectral method. BIT Numerical Mathematics, 2019, 59, 243-270.	2.0	13
62	On the computation of weighted Mooreâ€“Penrose inverse using a high-order matrix method. Computers and Mathematics With Applications, 2013, 66, 2344-2351.	2.7	12
63	A Class of Steffensen-Type Iterative Methods for Nonlinear Systems. Journal of Applied Mathematics, 2014, 2014, 1-9.	0.9	12
64	A computational method to price with transaction costs under the nonlinear Blackâ€“Scholes model. Chaos, Solitons and Fractals, 2019, 127, 291-301.	5.1	12
65	Optimal fourth-order iterative method free from derivative. Miskolc Mathematical Notes, 2011, 12, 255.	0.6	12
66	Two Optimal Eighth-Order Derivative-Free Classes of Iterative Methods. Abstract and Applied Analysis, 2012, 2012, 1-14.	0.7	11
67	Novel Computational Iterative Methods with Optimal Order for Nonlinear Equations. Advances in Numerical Analysis, 2011, 2011, 1-10.	0.2	10
68	Finding the Mooreâ€“Penrose inverse by a new matrix iteration. Journal of Applied Mathematics and Computing, 2015, 47, 33-48.	2.5	10
69	A multiquadric RBFâ€“FD scheme for simulating the financial HHW equation utilizing exponential integrator. Calcolo, 2018, 55, 1.	1.1	10
70	Pricing options under stochastic volatility jump model: A stable adaptive scheme. Applied Numerical Mathematics, 2019, 145, 69-89.	2.1	10
71	A new method for solving ill-conditioned linear systems. Opuscula Mathematica, 2013, 33, 337.	0.8	10
72	Computing Simple Roots by an Optimal Sixteenth-Order Class. Journal of Applied Mathematics, 2012, 2012, 1-13.	0.9	9

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73	A Numerical Method for Computing the Principal Square Root of a Matrix. Abstract and Applied Analysis, 2014, 2014, 1-7.	0.7	9
74	RBF-FD solution for a financial partial-integro differential equation utilizing the generalized multiquadric function. Computers and Mathematics With Applications, 2021, 82, 161-178.	2.7	9
75	New Third- and Sixth-Order Derivative-Free Techniques for Nonlinear Equations. Journal of Mathematics Research, 2011, 3, .	0.1	8
76	Interval Ostrowski-type methods with guaranteed convergence. Annali Dell'Universita Di Ferrara, 2013, 59, 221-234.	1.3	8
77	A three-step iterative method for non-linear systems with sixth order of convergence. International Journal of Computing Science and Mathematics, 2013, 4, 363.	0.3	8
78	Multipoint Iterative Methods for Finding All the Simple Zeros in an Interval. Journal of Applied Mathematics, 2014, 2014, 1-13.	0.9	8
79	Constructing two-step iterative methods with and without memory. Computational Mathematics and Mathematical Physics, 2015, 55, 183-193.	0.8	8
80	On a fourth-order matrix method for computing polar decomposition. Computational and Applied Mathematics, 2015, 34, 389-399.	1.3	8
81	A family of Kurchatov-type methods and its stability. Applied Mathematics and Computation, 2017, 294, 264-279.	2.2	8
82	A Legendre-based computational method for solving a class of ItÃ´ stochastic delay differential equations. Numerical Algorithms, 2019, 80, 1267-1282.	1.9	8
83	A radial basis function â€" Hermite finite difference approach to tackle cash-or-nothing and asset-or-nothing options. Journal of Computational and Applied Mathematics, 2020, 368, 112523.	2.0	8
84	Efficient portfolio construction by means of CVaR and kâ€means++ clustering analysis: Evidence from the NYSE. International Journal of Finance and Economics, 2022, 27, 3679-3693.	3.5	8
85	On novel classes of iterative methods for solving nonlinear equations. Computational Mathematics and Mathematical Physics, 2012, 52, 203-210.	0.8	7
86	A Taylor-type numerical method for solving nonlinear ordinary differential equations. AEJ - Alexandria Engineering Journal, 2013, 52, 543-550.	6.4	7
87	Solution of the heat equation in the castâ€mould heterogeneous domain using a weighted algorithm based on the homotopy perturbation method. International Journal of Numerical Methods for Heat and Fluid Flow, 2013, 23, 451-459.	2.8	7
88	New Mono- and Biaccelerator Iterative Methods with Memory for Nonlinear Equations. Abstract and Applied Analysis, 2014, 2014, 1-8.	0.7	7
89	Several numerical methods for computing unitary polar factor of a matrix. Advances in Difference Equations, 2016, 2016, .	3.5	7
90	A Class of Kungâ€"Traub-Type Iterative Algorithms for Matrix Inversion. International Journal of Applied and Computational Mathematics, 2016, 2, 641-648.	1.6	7

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91	Pricing foreign exchange options under stochastic volatility and interest rates using an RBFâ€“FD method. Journal of Computational Science, 2019, 37, 101028.	2.9	7
92	A fourth-order method for computing the sign function of a matrix with application in the Yangâ€“Baxter-like matrix equation. Computational and Applied Mathematics, 2019, 38, 1.	2.2	7
93	A family of Chaplygin-type solvers for ItÃ´ stochastic differential equations. Applied Mathematics and Computation, 2019, 340, 296-304.	2.2	7
94	Asset pricing for an affine jumpâ€diffusion model using an FD method of lines on nonuniform meshes. Mathematical Methods in the Applied Sciences, 2019, 42, 578-591.	2.3	7
95	A family of high order iterations for calculating the sign of a matrix. Mathematical Methods in the Applied Sciences, 2020, 43, 8192-8203.	2.3	7
96	Classifying a Lending Portfolio of Loans with Dynamic Updates via a Machine Learning Technique. Mathematics, 2021, 9, 17.	2.2	7
97	An extension of the Tau numerical algorithm for the solution of linear and nonlinear Laneâ€“Emden equations. Mathematical Methods in the Applied Sciences, 2013, 36, 674-682.	2.3	6
98	Numerical solution of nonlinear equations by an optimal eighth-order class of iterative methods. Annali Dell'Universita Di Ferrara, 2013, 59, 159-171.	1.3	6
99	Iterative Methods for Nonlinear Equations or Systems and Their Applications. Journal of Applied Mathematics, 2013, 2013, 1-2.	0.9	6
100	A New High-Order Stable Numerical Method for Matrix Inversion. Scientific World Journal, The, 2014, 2014, 1-10.	2.1	6
101	A super-fast tri-parametric iterative method with memory. Applied Mathematics and Computation, 2016, 289, 486-491.	2.2	6
102	Four-factor model of Quanto CDS with jumps-at-default and stochastic recovery. Journal of Computational Science, 2021, 54, 101434.	2.9	6
103	Two Classes of Iterative Schemes for Approximating Simple Roots. Journal of Applied Sciences, 2011, 11, 3442-3446.	0.3	6
104	The existence and uniqueness of solution for linear system of mixed Volterra-Fredholm integral equations in Banach space. AIMS Mathematics, 2020, 5, 226-235.	1.6	6
105	Application of the Homotopy Perturbation Method to the Burgers Equation with Delay. Chinese Physics Letters, 2012, 29, 030202.	3.3	5
106	Efficient Iterative Methods with and without Memory Possessing High Efficiency Indices. Discrete Dynamics in Nature and Society, 2014, 2014, 1-9.	0.9	5
107	An Algorithm for Computing Geometric Mean of Two Hermitian Positive Definite Matrices via Matrix Sign. Abstract and Applied Analysis, 2014, 2014, 1-6.	0.7	5
108	A Matrix Iteration for Finding Drazin Inverse with Ninth-Order Convergence. Abstract and Applied Analysis, 2014, 2014, 1-7.	0.7	5

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109	Some derivative-free solvers for numerical solution of SODEs. SeMA Journal, 2015, 68, 17-27.	2.0	5
110	Computing outer inverses by scaled matrix iterations. Journal of Computational and Applied Mathematics, 2016, 296, 89-101.	2.0	5
111	A new solution method for stochastic differential equations via collocation approach. International Journal of Computer Mathematics, 2016, 93, 2079-2091.	1.8	5
112	Improving the Computational Efficiency of a Variant of Steffensenâ€™s Method for Nonlinear Equations. Mathematics, 2019, 7, 306.	2.2	5
113	Pricing the financial Hestonâ€“Hullâ€“White model with arbitrary correlation factors via an adaptive FDM. Computers and Mathematics With Applications, 2019, 77, 1107-1123.	2.7	5
114	European option valuation under the Bates PIDE in finance: A numerical implementation of the Gaussian scheme. Discrete and Continuous Dynamical Systems - Series S, 2020, 13, 889-909.	1.1	5
115	On a high-order Gaussian radial basis function generated Hermite finite difference method and its application. Calcolo, 2021, 58, 1.	1.1	5
116	Robust cubically and quartically iterative techniques free from derivative. Proyecciones, 2011, 30, 149-161.	0.3	4
117	Optimized Steffensen-Type Methods with Eighth-Order Convergence and High Efficiency Index. International Journal of Mathematics and Mathematical Sciences, 2012, 2012, 1-18.	0.7	4
118	An efficient twelfth-order iterative method for finding all the solutions of nonlinear equations. Journal of Computational Methods in Sciences and Engineering, 2013, 13, 309-320.	0.2	4
119	An Iterative Solver in the Presence and Absence of Multiplicity for Nonlinear Equations. Scientific World Journal, The, 2013, 2013, 1-9.	2.1	4
120	Two novel classes of two-step optimal methods for all the zeros in an interval. Afrika Matematika, 2014, 25, 307-321.	0.8	4
121	On the extension of Householderâ€™s method for weighted Mooreâ€“Penrose inverse. Applied Mathematics and Computation, 2014, 231, 407-413.	2.2	4
122	A Quartically Convergent Jarratt-Type Method for Nonlinear System of Equations. Algorithms, 2015, 8, 415-423.	2.1	4
123	Some efficient seventh-order derivative-free families in root-finding. Opuscula Mathematica, 2013, 33, 163.	0.8	4
124	Letter to the editor regarding the article by Khattri: derivative free algorithm for solving nonlinear equations. Computing (Vienna/New York), 2013, 95, 159-162.	4.8	3
125	Approximating the Inverse of a Square Matrix with Application in Computation of the Moore-Penrose Inverse. Journal of Applied Mathematics, 2014, 2014, 1-8.	0.9	3
126	A Novel Iterative Method for Polar Decomposition and Matrix Sign Function. Discrete Dynamics in Nature and Society, 2015, 2015, 1-11.	0.9	3

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127	Factorizations of hyperpower family of iterative methods via least squares approach. Computational and Applied Mathematics, 2018, 37, 3226-3240.	1.3	3
128	Efficient Semi-Discretization Techniques for Pricing European and American Basket Options. Computational Economics, 2019, 53, 1487-1508.	2.6	3
129	How to construct a fourth-order scheme for Heston-Hull-White equation?. AIP Conference Proceedings, 2019, , .	0.4	3
130	An optimized Steffensen-type iterative method with memory associated with annuity calculation. European Physical Journal Plus, 2019, 134, 1.	2.6	3
131	A revisit of stochastic theta method with some improvements. Filomat, 2017, 31, 585-596.	0.5	3
132	On an improved computational solution for the 3D HCIR PDE in finance. Analele Stiintifice Ale Universitatii Ovidius Constanta, Seria Matematica, 2019, 27, 207-230.	0.3	3
133	A Numerical Algorithm for Solving Nonlinear Delay Volterra Integral Equations by Means of Homotopy Perturbation Method. International Journal of Nonlinear Sciences and Numerical Simulation, 2011, 12, 15-21.	1.0	2
134	An Inversion-Free Method for Finding Positive Definite Solution of a Rational Matrix Equation. Scientific World Journal, The, 2014, 2014, 1-5.	2.1	2
135	New class of eighth-order iterative zero-finders and their basins of attraction. Afrika Matematika, 2014, 25, 67-79.	0.8	2
136	Recent Theories and Applications in Approximation Theory. Scientific World Journal, The, 2015, 2015, 1-2.	2.1	2
137	Construction of some accelerated methods for solving scalar stochastic differential equations. International Journal of Computing Science and Mathematics, 2016, 7, 537.	0.3	2
138	A stable local radial basis function method for option pricing problem under the Bates model. Numerical Methods for Partial Differential Equations, 2019, 35, 1035-1055.	3.6	2
139	Managing the risk based on entropic value-at-risk under a normal-Rayleigh distribution. Applied Mathematics and Computation, 2021, 402, 126129.	2.2	2
140	Numerical Analysis of Novel Finite Difference Methods. Mathematics in Industry, 2017, , 171-214.	0.3	2
141	A new Analytical Solution Procedure for the Motion of a Spherical Particle in a Plane Couette Flow. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2013, 68, 319-326.	1.5	1
142	Construction of some accelerated methods for solving scalar stochastic differential equations. International Journal of Computing Science and Mathematics, 2016, 7, 537.	0.3	1
143	An Efficient Numerical Scheme for the Solution of a Stochastic Volatility Model Including Contemporaneous Jumps in Finance. International Journal of Computational Methods, 0, , .	1.3	1
144	Exploiting higher computational efficiency index for computing outer generalized inverses. Applied Numerical Mathematics, 2022, 175, 18-28.	2.1	1

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145	On an inversion-free algorithm for the nonlinear matrix problem Ï‡^{Î±} A* Ï‡Î² A + B * Ï‡^{Î³} B = I. International Journal of Computer Mathematics, 0, , 1-0.	1.8	1
146	Iterative Methods and Dynamics for Nonlinear Problems. Discrete Dynamics in Nature and Society, 2017, 2017, 1-1.	0.9	0
147	Option pricing under a financial model with stochastic interest rate. AIP Conference Proceedings, 2019, , .	0.4	0