

# Sedaghat Shahmorad

## List of Publications by Year in descending order

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71  
papers

1,112  
citations

471061

17  
h-index

433756

31  
g-index

71  
all docs

71  
docs citations

71  
times ranked

669  
citing authors

#	ARTICLE	IF	CITATIONS
1	Application of the fractional differential transform method to fractional-order integro-differential equations with nonlocal boundary conditions. <i>Journal of Computational and Applied Mathematics</i> , 2010, 234, 883-891.	1.1	108
2	Numerical solution of the system of Fredholm integro-differential equations by the Tau method. <i>Applied Mathematics and Computation</i> , 2005, 168, 465-478.	1.4	82
3	Tau numerical solution of Fredholm integro-differential equations with arbitrary polynomial bases. <i>Applied Mathematical Modelling</i> , 2003, 27, 145-154.	2.2	81
4	Numerical solution of the general form linear Fredholm-Volterra integro-differential equations by the Tau method with an error estimation. <i>Applied Mathematics and Computation</i> , 2005, 167, 1418-1429.	1.4	81
5	Numerical solution of a class of Integro-Differential equations by the Tau Method with an error estimation. <i>Applied Mathematics and Computation</i> , 2003, 136, 559-570.	1.4	75
6	Solving a class of two-dimensional linear and nonlinear Volterra integral equations by the differential transform method. <i>Journal of Computational and Applied Mathematics</i> , 2009, 228, 70-76.	1.1	75
7	A matrix formulation of the Tau Method for Fredholm and Volterra linear integro-differential equations. <i>Korean Journal of Computational and Applied Mathematics</i> , 2002, 9, 497-507.	0.2	41
8	Block by block method for the systems of nonlinear Volterra integral equations. <i>Applied Mathematical Modelling</i> , 2010, 34, 400-406.	2.2	37
9	Integration of Volterra model with artificial neural networks for rainfall-runoff simulation in forested catchment of northern Iran. <i>Journal of Hydrology</i> , 2016, 540, 340-354.	2.3	32
10	Analytical lie group approach for solving fractional integro-differential equations. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2017, 51, 66-77.	1.7	29
11	Numerical piecewise approximate solution of Fredholm integro-differential equations by the Tau method. <i>Applied Mathematical Modelling</i> , 2005, 29, 1005-1021.	2.2	27
12	Numerical solution of the nonlinear Volterra integro-differential equations by the Tau method. <i>Applied Mathematics and Computation</i> , 2007, 188, 1580-1586.	1.4	26
13	A COMPUTATIONAL METHOD FOR SOLVING TWO-DIMENSIONAL LINEAR FREDHOLM INTEGRAL EQUATIONS OF THE SECOND KIND. <i>ANZIAM Journal</i> , 2008, 49, 543-549.	0.3	24
14	A Tau-like numerical method for solving fractional delay integro-differential equations. <i>Applied Numerical Mathematics</i> , 2020, 151, 322-336.	1.2	24
15	Differential transform method for the system of two-dimensional nonlinear Volterra integro-differential equations. <i>Computers and Mathematics With Applications</i> , 2011, 61, 2621-2629.	1.4	22
16	Development of the Tau Method for the Numerical Solution of Two-dimensional Linear Volterra Integro-differential Equations. <i>Computational Methods in Applied Mathematics</i> , 2009, 9, 421-435.	0.4	20
17	A matrix based method for two dimensional nonlinear Volterra-Fredholm integral equations. <i>Numerical Algorithms</i> , 2015, 68, 511-529.	1.1	18
18	Numerical solution of Volterra integro-differential equations by the Tau method with the Chebyshev and Legendre bases. <i>Applied Mathematics and Computation</i> , 2005, 170, 314-338.	1.4	17

#	ARTICLE	IF	CITATIONS
19	Extension of the operational Tau method for solving 1-D nonlinear transient heat conduction equations. <i>Journal of King Saud University - Science</i> , 2013, 25, 283-288.	1.6	14
20	On the structural properties of $F_m$ -transform with applications. <i>Fuzzy Sets and Systems</i> , 2018, 342, 32-52.	1.6	14
21	New fractional Lanczos vector polynomials and their application to system of Abelâ€™Volterra integral equations and fractional differential equations. <i>Journal of Computational and Applied Mathematics</i> , 2020, 366, 112409.	1.1	13
22	Super implicit multistep collocation methods for nonlinear Volterra integral equations. <i>Mathematical and Computer Modelling</i> , 2012, 55, 590-607.	2.0	12
23	Convergence analysis of piecewise continuous collocation methods for higher index integral algebraic equations of the Hessenberg type. <i>International Journal of Applied Mathematics and Computer Science</i> , 2013, 23, 341-355.	1.5	12
24	Multistep Hermite collocation methods for solving Volterra Integral Equations. <i>Numerical Algorithms</i> , 2012, 60, 27-50.	1.1	11
25	Hermite and piecewise cubic Hermite interpolation of fuzzy data. <i>Journal of Intelligent and Fuzzy Systems</i> , 2014, 26, 2889-2898.	0.8	11
26	Comparison of Volterra Model and Artificial Neural Networks for Rainfallâ€™Runoff Simulation. <i>Natural Resources Research</i> , 2014, 23, 341-354.	2.2	11
27	A Stable and Convergent Finite Difference Method for Fractional Blackâ€™Scholes Model of American Put Option Pricing. <i>Computational Economics</i> , 2019, 53, 191-205.	1.5	11
28	Mathematical Models to Shed Light on Amyloid-Beta and Tau Protein Dependent Pathologies in Alzheimerâ€™s Disease. <i>Neuroscience</i> , 2020, 424, 45-57.	1.1	10
29	Computational modeling to determine key regulators of hypoxia effects on the lactate production in the glycolysis pathway. <i>Scientific Reports</i> , 2020, 10, 9163.	1.6	10
30	Iterative numerical solution of non-linear integro-differential equations by the Tau method. <i>Applied Mathematics and Computation</i> , 2007, 193, 514-522.	1.4	9
31	A new two-step P-stable hybrid Obrechhoff method for the numerical integration of second-order IVPs. <i>Journal of Computational and Applied Mathematics</i> , 2011, 235, 1706-1712.	1.1	9
32	Quantum stabilizer codes from Abelian and non-Abelian groups association schemes. <i>International Journal of Quantum Information</i> , 2015, 13, 1550021.	0.6	9
33	An Operational Matrix Method for Solving Delay Fredholm and Volterra Integroâ€™Differential Equations. <i>International Journal of Computational Methods</i> , 2016, 13, 1650040.	0.8	9
34	Trigonometric $F_m$ -transform and its approximative properties. <i>Soft Computing</i> , 2017, 21, 3567-3577.	2.1	9
35	A computational method for solving two-dimensional linear Volterra integral equations of the first kind. <i>Scientia Iranica</i> , 2012, 19, 829-835.	0.3	8
36	The block-by-block method with Romberg quadrature for the solution of nonlinear volterra integral equations on large intervals. <i>Ukrainian Mathematical Journal</i> , 2012, 64, 1050-1063.	0.1	7

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37	A block by block method with Romberg quadrature for the system of Urysohn type Volterra integral equations. <i>Computational and Applied Mathematics</i> , 2012, 31, 191-203.	1.0	7
38	Dynamical analysis of public health education on HIV/AIDS transmission. <i>Mathematical Methods in the Applied Sciences</i> , 2015, 38, 3601-3614.	1.2	7
39	A matrix formulated algorithm for solving parabolic equations with nonlocal boundary conditions. <i>Numerical Algorithms</i> , 2017, 74, 1203-1221.	1.1	7
40	A new recursive formulation of the Tau method for solving linear Abel's Volterra integral equations and its application to fractional differential equations. <i>Calcolo</i> , 2019, 56, 1.	0.6	7
41	An Approximation Method Based on Matrix Formulated Algorithm for the Heat Equation with Nonlocal Boundary Conditions. <i>Computational Methods in Applied Mathematics</i> , 2012, 12, 92-107.	0.4	6
42	Efficient quadrature rules for solving nonlinear fractional integro-differential equations of the Hammerstein type. <i>Applied Mathematical Modelling</i> , 2015, 39, 5452-5458.	2.2	6
43	The Stability Analysis of Predictor-Corrector Method in Solving American Option Pricing Model. <i>Computational Economics</i> , 2016, 47, 255-274.	1.5	6
44	A BLOCK BY BLOCK METHOD FOR SOLVING SYSTEM OF VOLTERRA INTEGRAL EQUATIONS WITH CONTINUOUS AND ABEL KERNELS. <i>Mathematical Modelling and Analysis</i> , 2015, 20, 737-753.	0.7	5
45	Comparative study of different wavelets for developing parsimonious Volterra model for rainfall-runoff simulation. <i>Water Resources</i> , 2017, 44, 568-578.	0.3	5
46	An equivalence lemma for a class of fuzzy implicit integro-differential equations. <i>Journal of Computational and Applied Mathematics</i> , 2018, 327, 388-399.	1.1	5
47	A new Tau-collocation method with fractional basis for solving weakly singular delay Volterra integro-differential equations. <i>Journal of Applied Mathematics and Computing</i> , 2022, 68, 2435-2469.	1.2	5
48	Topological quantum codes from self-complementary self-dual graphs. <i>Quantum Information Processing</i> , 2015, 14, 4057-4066.	1.0	4
49	Lie symmetry analysis of two dimensional weakly singular integral equations. <i>Journal of Geometry and Physics</i> , 2021, 170, 104385.	0.7	4
50	An operational approach with Pade approximant for the numerical solution of non-linear Fredholm integro-differential equations. <i>Scientia Iranica</i> , 2012, 19, 1691-1698.	0.3	3
51	Numerical solution of transient heat conduction equation with variable thermophysical properties by the Tau method. <i>Numerical Methods for Partial Differential Equations</i> , 2014, 30, 964-977.	2.0	3
52	Approximate solution of dual integral equations using Chebyshev polynomials. <i>International Journal of Computer Mathematics</i> , 2017, 94, 493-502.	1.0	3
53	Numerical Solution of a Nonlinear Fractional Integro-Differential Equation by a Geometric Approach. <i>Differential Equations and Dynamical Systems</i> , 2021, 29, 585-596.	0.5	3
54	Study of Public Health Education Effect on Spread of HIV Infection in a Density-Dependent Transmission Model. <i>Differential Equations and Dynamical Systems</i> , 2020, 28, 201-215.	0.5	3

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55	Torsional Alfvén waves and the period ratio $P_1/P_2$ in spicules. <i>Astrophysics and Space Science</i> , 2014, 353, 25-29.	0.5	2
56	Two-step collocation methods for two-dimensional Volterra integral equations of the second kind. <i>Journal of Applied Analysis</i> , 2019, 25, 1-11.	0.2	2
57	Numerical solution of the time-fractional Navier–Stokes equations for incompressible flow in a lid-driven cavity. <i>Computational and Applied Mathematics</i> , 2021, 40, 1.	1.0	2
58	Approximate Solution Of The System Of Non-Linear Volterra Integro-Differential Equations. <i>Computational Methods in Applied Mathematics</i> , 2008, 8, 77-85.	0.4	1
59	Approximate Solution of a Singular Integral Cauchy-Kernel Equation of the First Kind. <i>Computational Methods in Applied Mathematics</i> , 2010, 10, 359-367.	0.4	1
60	Review the allocation of production lines in shifts with minimising energy costs approach in Tehran Pegah Co.. <i>International Journal of Operational Research</i> , 2014, 19, 68.	0.1	1
61	The period ratio $P_1 / P_2$ of torsional Alfvén waves with steady flows in spicules. <i>Astrophysics and Space Science</i> , 2016, 361, 1.	0.5	1
62	Free response of a continuous vibrational system with attachments and/or discontinuities using segmented operational Tau method. <i>JVC/Journal of Vibration and Control</i> , 2018, 24, 2120-2133.	1.5	1
63	Solving Finite Part Singular Integral Equations Using Orthogonal Polynomials. <i>Bulletin of the Iranian Mathematical Society</i> , 2020, 46, 799-814.	0.4	1
64	Numerical solution of fractional Black–Scholes model of American put option pricing via a nonstandard finite difference method: Stability and convergent analysis. <i>Mathematical Methods in the Applied Sciences</i> , 2021, 44, 2790-2805.	1.2	1
65	Torsional waves with force-free magnetic fields in solar plasma structures. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 502, 4930-4934.	1.6	1
66	Fractional differential equations, compatibility, and exact solutions. <i>Computational and Applied Mathematics</i> , 2022, 41, 1.	1.0	1
67	A quadrature free convergent method for the numerical solution of linear Fredholm integral equations based on Hermite-spline interpolation. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2007, 7, 2020041-2020042.	0.2	0
68	On the Accuracy of Fm-transform Approximation in Boundary Subintervals. , 2017, , .		0
69	Quickest flow over time network interdiction: mathematical formulation and a solution method. <i>Operational Research</i> , 2021, 21, 1179-1209.	1.3	0
70	Recursive higher order fuzzy transform method for numerical solution of Volterra integral equation with singular and nonsingular kernels. <i>Journal of Computational and Applied Mathematics</i> , 2022, 403, 113854.	1.1	0
71	A computational method for time fractional partial integro-differential equations. <i>Journal of Applied Analysis</i> , 2020, 26, 315-323.	0.2	0