Mehmet Sezer

List of Publications by Year
in descending order

121 papers	2,777 citations	159585 30 h-index	223800 46 g-index
123 all docs	123 docs citations	123 times ranked	681 citing authors

#	Article	IF	Citations
1	The approximate solution of high-order linear Volterraâ€“Fredholm integro-differential equations in terms of Taylor polynomials. Applied Mathematics and Computation, 2000, 112, 291-308.	2.2	142
2	Taylor polynomial solutions of Volterra integral equations. International Journal of Mathematical Education in Science and Technology, 1994, 25, 625-633.	1.4	97
3	Approximate solution of multi-pantograph equation with variable coefficients. Journal of Computational and Applied Mathematics, 2008, 214, 406-416.	2.0	89
4	A method for the approximate solution of the secondâ€order linear differential equations in terms of Taylor polynomials. International Journal of Mathematical Education in Science and Technology, 1996, 27, 821-834.	1.4	88
5	Legendre polynomial solutions of high-order linear Fredholm integro-differential equations. Applied Mathematics and Computation, 2009, 210, 334-349.	2.2	86
6	A Taylor Collocation Method for the Solution of Linear Integro-Differential Equations. International Journal of Computer Mathematics, 2002, 79, 987-1000.	1.8	85
7	Chebyshev polynomial solutions of linear differential equations. International Journal of Mathematical Education in Science and Technology, 1996, 27, 607-618.	1.4	76
8	A Taylor method for numerical solution of generalized pantograph equations with linear functional argument. Journal of Computational and Applied Mathematics, 2007, 200, 217-225.	2.0	75
9	Chebyshev polynomial solutions of systems of high-order linear differential equations with variable coefficients. Applied Mathematics and Computation, 2003, 144, 237-247.	2.2	73
10	A collocation method using Hermite polynomials for approximate solution of pantograph equations. Journal of the Franklin Institute, 2011, 348, 1128-1139.	3.4	73
11	Chebyshev polynomial solutions of systems of higher-order linear Fredholmâ€“Volterra integro-differential equations. Journal of the Franklin Institute, 2005, 342, 688-701.	3.4	64
12	Polynomial solution of high-order linear Fredholm integro-differential equations with constant coefficients. Journal of the Franklin Institute, 2008, 345, 839-850.	3.4	61
13	A Taylor polynomial approach for solving differential-difference equations. Journal of Computational and Applied Mathematics, 2006, 186, 349-364.	2.0	54
14	Numerical solutions of systems of linear Fredholm integro-differential equations with Bessel polynomial bases. Computers and Mathematics With Applications, 2011, 61, 3079-3096.	2.7	54
15	A Bessel collocation method for numerical solution of generalized pantograph equations. Numerical Methods for Partial Differential Equations, 2012, 28, 1105-1123.	3.6	52
16	Taylor polynomial solution of hyperbolic type partial differential equations with constant coefficients. International Journal of Computer Mathematics, 2011, 88, 533-544.	1.8	50
17	A new collocation method for solution of mixed linear integro-differential-difference equations. Applied Mathematics and Computation, 2010, 216, 2183-2198.	2.2	49
18	A Taylor polynomial approach for solving generalized pantograph equations with nonhomogenous term. International Journal of Computer Mathematics, 2008, 85, 1055-1063.	1.8	47

#	Article	IF	Citations
19	Numerical solutions of integro-differential equations and application of a population model with an improved Legendre method. Applied Mathematical Modelling, 2013, 37, 2086-2101.	4.2	46
20	A chebyshev collocation method for the solution of linear integro-differential equations. International Journal of Computer Mathematics, 1999, 72, 491-507.	1.8	45
21	On the solution of the Riccati equation by the Taylor matrix method. Applied Mathematics and Computation, 2006, 176, 414-421.	2.2	42
22	Bessel polynomial solutions of high-order linear Volterra integro-differential equations. Computers and Mathematics With Applications, 2011, 62, 1940-1956.	2.7	42
23	Bernstein series solutions of pantograph equations using polynomial interpolation. Journal of Difference Equations and Applications, 2012, 18, 357-374.	1.1	41
24	The approximate solution of high-order linear difference equations with variable coefficients in terms of Taylor polynomials. Applied Mathematics and Computation, 2005, 168, 76-88.	2.2	40
25	An exponential approximation for solutions of generalized pantograph-delay differential equations. Applied Mathematical Modelling, 2013, 37, 9160-9173.	4.2	38
26	Chelyshkov collocation method for a class of mixed functional integro-differential equations. Applied Mathematics and Computation, 2015, 259, 943-954.	2.2	38
27	A new polynomial approach for solving difference and Fredholm integro-difference equations with mixed argument. Applied Mathematics and Computation, 2005, 171, 332-344.	2.2	36
28	Taylor polynomial solutions of systems of linear differential equations with variable coefficients. International Journal of Computer Mathematics, 2005, 82, 755-764.	1.8	35
29	Laguerre polynomial approach for solving Laneâ€"Emden type functional differential equations. Applied Mathematics and Computation, 2014, 242, 255-264.	2.2	33
30	Taylor collocation method for solution of systems of high-order linear Fredholmâ€"Volterra integro-differential equations. International Journal of Computer Mathematics, 2006, 83, 429-448.	1.8	31
31	An improved Bessel collocation method with a residual error function to solve a class of Laneâ€"Emden differential equations. Mathematical and Computer Modelling, 2013, 57, 1298-1311.	2.0	31
32	A collocation approach to solving the model of pollution for a system of lakes. Mathematical and Computer Modelling, 2012, 55, 330-341.	2.0	30
33	A numerical approach with error estimation to solve general integro-differentialâ€"difference equations using Dickson polynomials. Applied Mathematics and Computation, 2016, 276, 324-339.	2.2	30
34	Bernstein series solution of a class of linear integro-differential equations with weakly singular kernel. Applied Mathematics and Computation, 2011, 217, 7009-7020.	2.2	29
35	A New Approach to Numerical Solution of Nonlinear Klein-Gordon Equation. Mathematical Problems in Engineering, 2013, 2013, 1-7.	1.1	29
36	Taylor polynomial solutions of general linear differentialâ€"difference equations with variable coefficients. Applied Mathematics and Computation, 2006, 174, 1526-1538.	2.2	28

#	Article	IF	Citations
37	On the solution of the Abel equation of the second kind by the shifted Chebyshev polynomials. Applied Mathematics and Computation, 2011, 217, 4827-4833.	2.2	27
38	A Bernoulli polynomial approach with residual correction for solving mixed linear Fredholm integro-differential-difference equations. Journal of Difference Equations and Applications, 2013, 19, 1619-1631.	1.1	27
39	A numerical method for solving some model problems arising in science and convergence analysis based on residual function. Applied Numerical Mathematics, 2017, 121, 134-148.	2.1	26
40	Polynomial solution of the most general linear Fredholm integrodifferentialâ€“difference equations by means of Taylor matrix method. Complex Variables and Elliptic Equations, 2005, 50, 367-382.	0.2	25
41	Laguerre Collocation Method for Solving Fredholm Integro-Differential Equations with Functional Arguments. Journal of Applied Mathematics, 2014, 2014, 1-12.	0.9	25
42	Hybrid Eulerâ€“Taylor matrix method for solving of generalized linear Fredholm integro-differential difference equations. Applied Mathematics and Computation, 2016, 273, 33-41.	2.2	24
43	Shifted Legendre approximation with the residual correction to solve pantograph-delay type differential equations. Applied Mathematical Modelling, 2015, 39, 6529-6542.	4.2	23
44	Orthoexponential polynomial solutions of delay pantograph differential equations with residual error estimation. Applied Mathematics and Computation, 2015, 271, 11-21.	2.2	23
45	A numerical approach for solving Volterra type functional integral equations with variable bounds and mixed delays. Journal of Computational and Applied Mathematics, 2017, 311, 354-363.	2.0	23
46	A method for the approximate solution of the high-order linear difference equations in terms of Taylor polynomials. International Journal of Computer Mathematics, 2005, 82, 629-642.	1.8	22
47	A Bessel polynomial approach for solving general linear Fredholm integro-differentialâ€“difference equations. International Journal of Computer Mathematics, 2011, 88, 3093-3111.	1.8	19
48	Numeric solutions for the pantograph type delay differential equation using First Boubaker polynomials. Applied Mathematics and Computation, 2013, 219, 9484-9492.	2.2	19
49	A Taylor collocation method for the approximate solution of general linear Fredholmâ€“Volterra integro-difference equations with mixed argument. Applied Mathematics and Computation, 2006, 175, 675-690.	2.2	18
50	Chebyshev series solutions of Fredholm integral equations. International Journal of Mathematical Education in Science and Technology, 1996, 27, 649-657.	1.4	17
51	A Taylor polynomial approach for solving high-order linear Fredholm integro-differential equations in the most general form. International Journal of Computer Mathematics, 2007, 84, 527-539.	1.8	17
52	Fibonacci Collocation Method for Solving High-Order Linear Fredholm Integro-Differential-Difference Equations. International Journal of Mathematics and Mathematical Sciences, 2013, 2013, 1-9.	0.7	17
53	A Hermite collocation method for the approximate solutions of high-order linear Fredholm integro-differential equations. Numerical Methods for Partial Differential Equations, 2011, 27, 1707-1721.	3.6	16
54	Numerical Solution of Duffing Equation by Using an Improved Taylor Matrix Method. Journal of Applied Mathematics, 2013, 2013, 1-6.	0.9	16

#	Article	IF	Citations
55	Laguerre matrix method with the residual error estimation for solutions of a class of delay differential equations. Mathematical Methods in the Applied Sciences, 2014, 37, 453-463.	2.3	16
56	Rational Chebyshev collocation method for solving higher-order linear ordinary differential equations. Numerical Methods for Partial Differential Equations, 2011, 27, 1130-1142.	3.6	15
57	Solution of high-order linear Fredholm integro-differential equations with piecewise intervals. Numerical Methods for Partial Differential Equations, 2011, 27, 1327-1339.	3.6	15
58	Bernstein series solution of linear second-order partial differential equations with mixed conditions. Mathematical Methods in the Applied Sciences, 2014, 37, 609-619.	2.3	15
59	A Novel Numerical Approach for Simulating the Nonlinear MHD Jefferyâ€“Hamel Flow Problem. International Journal of Applied and Computational Mathematics, 2021, 7, 1.	1.6	14
60	Lucas Polynomial Approach for System of High-Order Linear Differential Equations and Residual Error Estimation. Mathematical Problems in Engineering, 2015, 2015, 1-14.	1.1	13
61	An exponential approach for the system of nonlinear delay integro-differential equations describing biological species living together. Neural Computing and Applications, 2016, 27, 769-779.	5.6	13
62	A taylor collocation method for solving high-order linear pantograph equations with linear functional argument. Numerical Methods for Partial Differential Equations, 2011, 27, 1628-1638.	3.6	12
63	Error analysis of the Chebyshev collocation method for linear second-order partial differential equations. International Journal of Computer Mathematics, 2015, 92, 2121-2138.	1.8	12
64	A numerical approach for solving generalized Abel-type nonlinear differential equations. Applied Mathematics and Computation, 2015, 262, 169-177.	2.2	12
65	An exponential matrix method for solving systems of linear differential equations. Mathematical Methods in the Applied Sciences, 2013, 36, 336-348.	2.3	11
66	A Numerical Approach Technique for Solving Generalized Delay Integro-Differential Equations with Functional Bounds by Means of Dickson Polynomials. International Journal of Computational Methods, 2018, 15, 1850039.	1.3	11
67	Approximate Solution of Higher Order Linear Differential Equations by Means of a New Rational Chebyshev Collocation Method. Mathematical and Computational Applications, 2010, 15, 45-56.	1.3	10
68	A collocation approach for solving linear complex differential equations in rectangular domains. Mathematical Methods in the Applied Sciences, 2012, 35, 1126-1139.	2.3	10
69	A fast numerical method for fractional partial integro-differential equations with spatial-time delays. Applied Numerical Mathematics, 2021, 161, 525-539.	2.1	10
70	Approximate solution of complex differential equations for a rectangular domain with Taylor collocation method. Applied Mathematics and Computation, 2006, 177, 844-851.	2.2	9
71	A new Taylor collocation method for nonlinear Fredholmâ€Volterra integroâ€differential equations. Numerical Methods for Partial Differential Equations, 2010, 26, 1006-1020.	3.6	9
72	Modified Laguerre collocation method for solving 1â€dimensional parabolic convectionâ€diffusion problems. Mathematical Methods in the Applied Sciences, 2018, 41, 8481-8487.	2.3	9

#	Article	IF	Citations
73	An advanced method with convergence analysis for solving space-time fractional partial differential equations with multi delays. European Physical Journal Plus, 2019, 134, 1.	2.6	9
74	Approximate solution of general high-order linear nonhomogeneous difference equations by means of Taylor collocation method. Applied Mathematics and Computation, 2006, 173, 683-693.	2.2	8
75	A Taylor collocation method for the numerical solution of complex differential equations with mixed conditions in elliptic domains. Applied Mathematics and Computation, 2006, 182, 498-508.	2.2	8
76	Numerical Approach of High-Order Linear Delay Difference Equations with Variable Coefficients in Terms of Laguerre Polynomials. Mathematical and Computational Applications, 2011, 16, 267-278.	1.3	8
77	A numerical method to solve a class of linear integroâ€differential equations with weakly singular kernel. Mathematical Methods in the Applied Sciences, 2012, 35, 621-632.	2.3	8
78	A novel graph-operational matrix method for solving multidelay fractional differential equations with variable coefficients and a numerical comparative survey of fractional derivative types. Turkish Journal of Mathematics, 2019, 43, 373-392.	0.7	8
79	A directly convergent numerical method based on orthoexponential polynomials for solving integro-differential-delay equations with variable coefficients and infinite boundary on half-line. Journal of Computational and Applied Mathematics, 2021, 386, 113250.	2.0	8
80	Numerical solution of a class of complex differential equations by the Taylor collocation method in elliptic domains. Numerical Methods for Partial Differential Equations, 2010, 26, 1191-1205.	3.6	7
81	A new Chebyshev polynomial approximation for solving delay differential equations. Journal of Difference Equations and Applications, 2012, 18, 1043-1065.	1.1	7
82	Improved Jacobi matrix method for the numerical solution of Fredholm integro-differential-difference equations. Mathematical Sciences, 2016, 10, 83-93.	1.7	7
83	Pellâ€"Lucas series approach for a class of Fredholm-type delay integro-differential equations with variable delays. Mathematical Sciences, 2021, 15, 55-64.	1.7	7
84	Polynomial solutions of certain differential equations. International Journal of Computer Mathematics, 2000, 76, 93-104.	1.8	6
85	A matrix method for solving high-order linear difference equations with mixed argument using hybrid legendre and taylor polynomials. Journal of the Franklin Institute, 2006, 343, 647-659.	3.4	6
86	Exponential Collocation Method for Solutions of Singularly Perturbed Delay Differential Equations. Abstract and Applied Analysis, 2013, 2013, 1-9.	0.7	6
87	An integrated numerical method with error analysis for solving fractional differential equations of quintic nonlinear type arising in applied sciences. Mathematical Methods in the Applied Sciences, 2019, 42, 6114-6130.	2.3	6
88	An inventive numerical method for solving the most general form of integro-differential equations with functional delays and characteristic behavior of orthoexponential residual function. Computational and Applied Mathematics, 2019, 38, 1.	2.2	6
89	On the numerical solution of fractional differential equations with cubic nonlinearity via matching polynomial of complete graph. Sadhana - Academy Proceedings in Engineering Sciences, 2019, 44, 1.	1.3	6
90	Modified operational matrix method for second-order nonlinear ordinary differential equations with quadratic and cubic terms. International Journal of Optimization and Control: Theories and Applications, 2020, 10, 218-225.	1.7	6

#	Article	IF	Citations
91	Solution of Dirichlet problem for a triangle region in terms of elliptic functions. Applied Mathematics and Computation, 2006, 182, 73-81.	2.2	5
92	A collocation method to solve higher order linear complex differential equations in rectangular domains. Numerical Methods for Partial Differential Equations, 2010, 26, 596-611.	3.6	5
93	A Taylor polynomial approach for solving the most general linear Fredholm integroâ€differentialâ€difference equations. Mathematical Methods in the Applied Sciences, 2012, 35, 839-844.	2.3	5
94	Taylor Collocation Method for Solving a Class of the First Order Nonlinear Differential Equations. Mathematical and Computational Applications, 2013, 18, 383-391.	1.3	5
95	A matched Hermite-Taylor matrix method to solve the combined partial integro-differential equations having nonlinearity and delay terms. Computational and Applied Mathematics, 2020, 39, 1.	2.2	5
96	Lerch matrix collocation method for 2D and 3D Volterra type integral and second order partial integro differential equations together with an alternative error analysis and convergence criterion based on residual functions. Turkish Journal of Mathematics, 2020, 44, 2073-2098.	0.7	5
97	Solution of nonlinear ordinary differential equations with quadratic and cubic terms by Morgan-Voyce matrix-collocation method. Turkish Journal of Mathematics, 2020, 44, 906-918.	0.7	5
98	A Modified Laguerre Matrix Approach for Burgersâ€"Fisher Type Nonlinear Equations. Advances in Dynamics, Patterns, Cognition, 2020, , 107-123.	0.3	5
99	A collocation approach for the numerical solution of certain linear retarded and advanced integrodifferential equations with linear functional arguments. Numerical Methods for Partial Differential Equations, 2011, 27, 447-459.	3.6	4
100	Fibonacci Collocation Method for Solving Linear Differential - Difference Equations. Mathematical and Computational Applications, 2013, 18, 448-458.	1.3	4
101	A numerical method for solving systems of higher order linear functional differential equations. Open Physics, 2016, 14, 15-25.	1.7	4
102	A numerical technique for solving functional integro-differential equations having variable bounds. Computational and Applied Mathematics, 2018, 37, 5609-5623.	1.3	4
103	Solution of Dirichlet problem for a rectangular region in terms of elliptic functions. International Journal of Computer Mathematics, 2004, 81, 1417-1426.	1.8	3
104	Solving highâ€order linear differential equations by a Legendre matrix method based on hybrid Legendre and Taylor polynomials. Numerical Methods for Partial Differential Equations, 2010, 26, 647-661.	3.6	3
105	A Collocation Method for Solving Fractional Riccati Differential Equation. Journal of Applied Mathematics, 2013, 2013, 1-8.	0.9	3
106	MÃ¼ntz-Legendre Polynomial Solutions of Linear Delay Fredholm Integro-Differential Equations and Residual Correction. Mathematical and Computational Applications, 2013, 18, 476-485.	1.3	3
107	Solution of the delayed single degree of freedom system equation by exponential matrix method. Applied Mathematics and Computation, 2014, 242, 444-453.	2.2	3
108	Hermite polynomial approach to determine spherical curves in Euclidean 3-space. New Trends in Mathematical Sciences, 2018, 3, 189-199.	0.2	3

#	Article	IF	Citations
109	Numerical solutions of a class of nonlinear ordinary differential equations in Hermite series. Thermal Science, 2019, 23, 339-351.	1.1	3
110	A Novel Study Based on Lerch Polynomials for Approximate Solutions of Pure Neumann Problem. International Journal of Applied and Computational Mathematics, 2022, 8, 1.	1.6	3
111	A numerical approach for a nonhomogeneous differential equation with variable delays. Mathematical Sciences, 2018, 12, 145-155.	1.7	2
112	A compatible Hermiteâ€"Taylor matrix-collocation technique with convergence test for second-order partial integro-differential equations containing two independent variables with functional bounds. Mathematical Sciences, 0, , 1.	1.7	2
113	A computational method for solving differential equations with quadratic nonlinearity by using Bernoulli polynomials. Thermal Science, 2019, 23, 275-283.	1.1	2
114	ON SOLUTIONS OF LINEAR FUNCTIONAL INTEGRAL AND INTEGRO-DIFFERENTIAL EQUATIONS VIA LAGRANGE POLYNOMIALS. Journal of Science and Arts, 2021, 21, 707-720.	0.3	2
115	A MUNTZ-LEGENDRE APPROACH TO OBTAIN SOLUTIONS OF SINGULAR PERTURBED PROBLEMS. Journal of Science and Arts, 2020, 20, 537-544.	0.3	1
116	A new characteristic numerical approach with evolutionary residual error analysis to nonlinear boundary value problems occurring in heat and mass transfer via combinatoric Mittag-Leffler polynomial. Numerical Heat Transfer; Part A: Applications, 0, , 1-15.	2.1	1
117	An accurate and novel numerical simulation with convergence analysis for nonlinear partial differential equations of Burgersâ€"Fisher type arising in applied sciences. International Journal of Nonlinear Sciences and Numerical Simulation, 2020, , .	1.0	0
118	EULER AND TAYLOR POLYNOMIALS METHOD FOR SOLVING VOLTERRA TYPE INTEGRO DIFFERENTIAL EQUATIONS WITH NONLINEAR TERMS. Journal of Science and Arts, 2021, 21, 395-406.	0.3	0
119	Legendre Matrix Method for Legendre Curve in Sasakian 3-Manifold. Foundations of Computing and Decision Sciences, 2021, 46, 205-219.	1.2	0
120	Morgan-Voyce Polynomial Approach for Ordinary Integro-Differential Equations Including Variable Bounds. , 0, , .	1.0	0
121	Charlier Series Solutions of Systems of First Order Delay Differential Equations with Proportional and Constant Arguments. , 2022, 2, 1-11.		0