Zaid M Odibat

List of Publications by Year
in descending order

95 papers	7,636 citations	53794 45 h-index	51608 86 g-index
98 all docs	98 docs citations	98 times ranked	2838 citing authors

#	Article	IF	Citations
1	Generalized Taylorâ€™s formula. Applied Mathematics and Computation, 2007, 186, 286-293.	2.2	656
2	Application of Variational Iteration Method to Nonlinear Differential Equations of Fractional Order. International Journal of Nonlinear Sciences and Numerical Simulation, 2006, 7, .	1.0	496
3	Modified homotopy perturbation method: Application to quadratic Riccati differential equation of fractional order. Chaos, Solitons and Fractals, 2008, 36, 167-174.	5.1	334
4	Homotopy perturbation method for nonlinear partial differential equations of fractional order. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 365, 345-350.	2.1	315
5	A generalized differential transform method for linear partial differential equations of fractional order. Applied Mathematics Letters, 2008, 21, 194-199.	2.7	310
6	Analytical solution of a time-fractional Navierâ€“Stokes equation by Adomian decomposition method. Applied Mathematics and Computation, 2006, 177, 488-494.	2.2	293
7	Numerical comparison of methods for solving linear differential equations of fractional order. Chaos, Solitons and Fractals, 2007, 31, 1248-1255.	5.1	284
8	The variational iteration method: An efficient scheme for handling fractional partial differential equations in fluid mechanics. Computers and Mathematics With Applications, 2009, 58, 2199-2208.	2.7	217
9	Numerical approach to differential equations of fractional order. Journal of Computational and Applied Mathematics, 2007, 207, 96-110.	2.0	209
10	Numerical methods for nonlinear partial differential equations of fractional order. Applied Mathematical Modelling, 2008, 32, 28-39.	4.2	208
11	Analytical approach to linear fractional partial differential equations arising in fluid mechanics. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 355, 271-279.	2.1	205
12	Adaptive feedback control and synchronization ofÂnon-identical chaotic fractional order systems. Nonlinear Dynamics, 2010, 60, 479-487.	5.2	203
13	Generalized differential transform method for solving a space- and time-fractional diffusion-wave equation. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 370, 379-387.	2.1	177
14	Generalized differential transform method: Application to differential equations of fractional order. Applied Mathematics and Computation, 2008, 197, 467-477.	2.2	176
15	A multi-step differential transform method and application to non-chaotic or chaotic systems. Computers and Mathematics With Applications, 2010, 59, 1462-1472.	2.7	159
16	Application of generalized differential transform method to multi-order fractional differential equations. Communications in Nonlinear Science and Numerical Simulation, 2008, 13, 1642-1654.	3.3	156
17	A study on the convergence of variational iteration method. Mathematical and Computer Modelling, 2010, 51, 1181-1192.	2.0	141
18	Comparison between the homotopy perturbation method and the variational iteration method for linear fractional partial differential equations. Computers and Mathematics With Applications, 2007, 54, 910-919.	2.7	139

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19	Approximations of fractional integrals and Caputo fractional derivatives. Applied Mathematics and Computation, 2006, 178, 527-533.	2.2	135
20	Numerical simulation of initial value problems with generalized Caputo-type fractional derivatives. Applied Numerical Mathematics, 2020, 156, 94-105.	2.1	126
21	A novel method for nonlinear fractional partial differential equations: Combination of DTM and generalized Taylor's formula. Journal of Computational and Applied Mathematics, 2008, 220, 85-95.	2.0	119
22	Analytic study on linear systems of fractional differential equations. Computers and Mathematics With Applications, 2010, 59, 1171-1183.	2.7	117
23	A reliable algorithm of homotopy analysis method for solving nonlinear fractional differential equations. Applied Mathematical Modelling, 2010, 34, 593-600.	4.2	115
24	SYNCHRONIZATION OF CHAOTIC FRACTIONAL-ORDER SYSTEMS VIA LINEAR CONTROL. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 81-97.	1.7	109
25	The homotopy analysis method for handling systems of fractional differential equations. Applied Mathematical Modelling, 2010, 34, 24-35.	4.2	102
26	Differential transform method for solving Volterra integral equation with separable kernels. Mathematical and Computer Modelling, 2008, 48, 1144-1149.	2.0	100
27	A note on phase synchronization in coupled chaotic fractional order systems. Nonlinear Analysis: Real World Applications, 2012, 13, 779-789.	1.7	86
28	Approximate solutions for boundary value problems of time-fractional wave equation. Applied Mathematics and Computation, 2006, 181, 767-774.	2.2	82
29	Variational iteration method for solving the space- and time-fractional KdV equation. Numerical Methods for Partial Differential Equations, 2008, 24, 262-271.	3.6	77
30	Variational iteration method for solving nonlinear boundary value problems. Applied Mathematics and Computation, 2006, 183, 1351-1358.	2.2	76
31	A nonlinear fractional model to describe the population dynamics of two interacting species. Mathematical Methods in the Applied Sciences, 2017, 40, 4134-4148.	2.3	71
32	Numerical solution of Fokkerâ€“Planck equation with space- and time-fractional derivatives. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 369, 349-358.	2.1	70
33	A reliable treatment of homotopy perturbation method for Kleinâ€“Gordon equations. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 365, 351-357.	2.1	67
34	Generalized synchronization of different dimensional chaotic dynamical systems in discrete time. Nonlinear Dynamics, 2015, 81, 765-771.	5.2	66
35	Numerical solutions of the spaceâ€time fractional advectionâ€dispersion equation. Numerical Methods for Partial Differential Equations, 2008, 24, 1416-1429.	3.6	64
36	Numerical solutions of time-fractional partial integrodifferential equations of Robin functions types in Hilbert space with error bounds and error estimates. Nonlinear Dynamics, 2018, 94, 1819-1834.	5.2	64

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37	A new modification of the homotopy perturbation method for linear and nonlinear operators. Applied Mathematics and Computation, 2007, 189, 746-753.	2.2	63
38	A study on the convergence of homotopy analysis method. Applied Mathematics and Computation, 2010, 217, 782-789.	2.2	63
39	On the dynamics, control and synchronization of fractional-order Ikeda map. Chaos, Solitons and Fractals, 2019, 123, 108-115.	5.1	63
40	A Robust Computational Algorithm of Homotopy Asymptotic Method for Solving Systems of Fractional Differential Equations. Journal of Computational and Nonlinear Dynamics, 2019, 14, .	1.2	62
41	Computational algorithms for computing the fractional derivatives of functions. Mathematics and Computers in Simulation, 2009, 79, 2013-2020.	4.4	60
42	An adaptation of homotopy analysis method for reliable treatment of strongly nonlinear problems: construction of homotopy polynomials. Mathematical Methods in the Applied Sciences, 2015, 38, 991-1000.	2.3	59
43	lymphotropic virus I (HTLV-I) infection of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si21.gif" display="inline" overflow="scroll"><mml:mstyle mathvariant="normal"><mml:mi>CD</mml:mi></mml:mstyle><mml:msup><mml:mrow><mml:mn>4</mml:mn></mml:mrow><mml:mn	2.7	57
44	On Legendre polynomial approximation with the VIM or HAM for numerical treatment of nonlinear fractional differential equations. Journal of Computational and Applied Mathematics, 2011, 235, 2956-2968.	2.0	52
45	A comparison study of two modified analytical approach for the solution of nonlinear fractional shallow water equations in fluid flow. AIMS Mathematics, 2020, 5, 3035-3055.	1.6	51
46	Fractional green function for linear time-fractional inhomogeneous partial differential equations in fluid mechanics. Journal of Applied Mathematics and Computing, 2007, 24, 167-178.	2.5	42
47	On Inverse Generalized Synchronization of Continuous Chaotic Dynamical Systems. International Journal of Applied and Computational Mathematics, 2016, 2, 1-11.	1.6	38
48	On a function projective synchronization scheme for non-identical Fractional-order chaotic (hyperchaotic) systems with different dimensions and orders. Optik, 2017, 136, 513-523.	2.9	37
49	On the optimal selection of the linear operator and the initial approximation in the application of the homotopy analysis method to nonlinear fractional differential equations. Applied Numerical Mathematics, 2019, 137, 203-212.	2.1	37
50	A study on the convergence conditions of generalized differential transform method. Mathematical Methods in the Applied Sciences, 2017, 40, 40-48.	2.3	36
51	Universal chaos synchronization control laws for general quadratic discrete systems. Applied Mathematical Modelling, 2017, 45, 636-641.	4.2	36
52	Dynamics of generalized Caputo type delay fractional differential equations using a modified Predictor-Corrector scheme. Physica Scripta, 2021, 96, 125213.	2.5	34
53	Chaos in Fractional Order Cubic Chua System and Synchronization. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2017, 27, 1750161.	1.7	32
54	Fractional analysis of co-existence of some types of chaos synchronization. Chaos, Solitons and Fractals, 2017, 105, 215-223.	5.1	26

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55	An optimized decomposition method for nonlinear ordinary and partial differential equations. Physica A: Statistical Mechanics and Its Applications, 2020, 541, 123323.	2.6	23
56	A linearizationâ€based approach of homotopy analysis method for nonâ€linear timeâ€fractional parabolic PDEs. Mathematical Methods in the Applied Sciences, 2019, 42, 7222-7232.	2.3	22
57	On the Three-Dimensional Fractional-Order HÃ©non Map with Lorenz-Like Attractors. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2050217.	1.7	21
58	The Multi-Step Differential Transform Method and Its Application to Determine the Solutions of Non-Linear Oscillators. Advances in Applied Mathematics and Mechanics, 2012, 4, 422-438.	1.2	21
59	Solitary solutions for the nonlinear dispersive equations with fractional time derivatives. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 370, 295-301.	2.1	20
60	A New Qâ€“S Synchronization Results for Discrete Chaotic Systems. Differential Equations and Dynamical Systems, 2019, 27, 413-422.	1.0	20
61	Nonlinear dynamics and chaos in fractional differential equations with a new generalized Caputo fractional derivative. Chinese Journal of Physics, 2022, 77, 1003-1014.	3.9	18
62	An alternative solution of the neutron diffusion equation in cylindrical symmetry. Annals of Nuclear Energy, 2011, 38, 1140-1143.	1.8	17
63	Investigation of Q-S synchronization in coupled chaotic incommensurate fractional order systems. Chinese Journal of Physics, 2018, 56, 1940-1948.	3.9	17
64	Rectangular decomposition method for fractional diffusion-wave equations. Applied Mathematics and Computation, 2006, 179, 92-97.	2.2	16
65	An optimized linearization-based predictor-corrector algorithm for the numerical simulation of nonlinear FDEs. Physica Scripta, 2020, 95, 065202.	2.5	16
66	Analytic study on time-fractional SchrÃ¶dinger equations: exact solutions by GDTM. Journal of Physics: Conference Series, 2008, 96, 012066.	0.4	15
67	Computing eigenelements of boundary value problems with fractional derivatives. Applied Mathematics and Computation, 2009, 215, 3017-3028.	2.2	15
68	Reliable approaches of variational iteration method for nonlinear operators. Mathematical and Computer Modelling, 2008, 48, 222-231.	2.0	14
69	ANALYTICAL COMPARISON BETWEEN THE HOMOTOPY PERTURBATION METHOD AND VARIATIONAL ITERATION METHOD FOR DIFFERENTIAL EQUATIONS OF FRACTIONAL ORDER. International Journal of Modern Physics B, 2008, 22, 4041-4058.	2.0	14
70	Exact solitary solutions for variants of the KdV equations with fractional time derivatives. Chaos, Solitons and Fractals, 2009, 40, 1264-1270.	5.1	14
71	A universal predictorâ€“corrector algorithm for numerical simulation of generalized fractional differential equations. Nonlinear Dynamics, 2021, 105, 2363-2374.	5.2	14
72	Construction of solitary solutions for nonlinear dispersive equations by variational iteration method. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 4045-4052.	2.1	13

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73	A solution of the neutron diffusion equation in hemispherical symmetry using the homotopy perturbation method. Annals of Nuclear Energy, 2009, 36, 1711-1717.	1.8	13
74	A Riccati Equation Approach and Travelling Wave Solutions for Nonlinear Evolution Equations. International Journal of Applied and Computational Mathematics, 2017, 3, 1-13.	1.6	13
75	An Implementation of the Generalized Differential Transform Scheme for Simulating Impulsive Fractional Differential Equations. Mathematical Problems in Engineering, 2022, 2022, 1-11.	1.1	13
76	Compact and noncompact structures for nonlinear fractional evolution equations. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 1219-1227.	2.1	12
77	Synchronization Control in Reaction-Diffusion Systems: Application to Lengyel-Epstein System. Complexity, 2019, 2019, 1-8.	1.6	12
78	Compact structures in a class of nonlinearly dispersive equations with time-fractional derivatives. Applied Mathematics and Computation, 2008, 205, 273-280.	2.2	11
79	An improved optimal homotopy analysis algorithm for nonlinear differential equations. Journal of Mathematical Analysis and Applications, 2020, 488, 124089.	1.0	11
80	The optimal homotopy analysis method applied on nonlinear timeâ€fractional hyperbolic partial differential equation<scp>s</scp>. Numerical Methods for Partial Differential Equations, 2021, 37, 2008-2022.	3.6	9
81	On a New Modification of the ErdÃ©lyiâ€“Kober Fractional Derivative. Fractal and Fractional, 2021, 5, 121.	3.3	9
82	Optimal homotopy asymptotic method for solving fractional relaxation-oscillation equation. Journal of Interpolation and Approximation in Scientific Computing, 2015, 2015, 98-111.	0.3	8
83	A linearization-based computational algorithm of homotopy analysis method for nonlinear reactionâ€“diffusion systems. Mathematics and Computers in Simulation, 2022, 194, 505-522.	4.4	8
84	A reliable modification of the rectangular decomposition method. Applied Mathematics and Computation, 2006, 183, 1226-1234.	2.2	6
85	An analytic solution for fractional order Riccati equations by using optimal homotopy asymptotic method. Applied Mathematical Sciences, 0, 10, 1131-1150.	0.1	6
86	The optimized decomposition method for a reliable treatment of IVPs for second order differential equations. Physica Scripta, 2021, 96, 095206.	2.5	6
87	On the dynamics of a Caputo-like discrete fractional RÃ¶ssler system: chaos, stabilization and synchronization. Physica Scripta, 2022, 97, 035203.	2.5	6
88	A Legendreâ€based approach of the optimized decomposition method for solving nonlinear Caputoâ€type fractional differential equations. Mathematical Methods in the Applied Sciences, 0, , .	2.3	6
89	Nonlinear dynamics and chaos in Caputo-like discrete fractional Chen system. Physica Scripta, 2021, 96, 095219.	2.5	2
90	On the approximation of integrals using homotopy perturbation method. International Journal of Computer Mathematics, 2010, 87, 53-62.	1.8	1

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91	Approximate analytical solution of the space-and time-fractional Burgers equations. Journal Europeen Des Systemes Automatises, 2008, 42, 627-638.	0.4	1
92	Numerical schemes for variable exponent fractionalâ€type integral equations. Mathematical Methods in the Applied Sciences, 0, , .	2.3	1
93	Reduced-Increased Synchronization Between Fractional Chaotic Systems with Different Dimensions and Orders. SSRN Electronic Journal, 0, , .	0.4	0
94	Solitary Wave Solutions of Some Nonlinear Physical Models Using Riccati Equation Approach. Acta Mathematicae Applicatae Sinica, 2020, 36, 401-418.	0.7	0
95	Fractional Green's function for fractional partial differential equations. Journal Europeen Des Systemes Automatises, 2008, 42, 639-651.	0.4	0