

Zulqurnain Sabir

List of Publications by Year in descending order

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125
papers

4,901
citations

76326

40
h-index

128289

60
g-index

127
all docs

127
docs citations

127
times ranked

766
citing authors

#	ARTICLE	IF	CITATIONS
1	Neuro-heuristics for nonlinear singular Thomas-Fermi systems. <i>Applied Soft Computing Journal</i> , 2018, 65, 152-169.	7.2	176
2	A new stochastic computing paradigm for the dynamics of nonlinear singular heat conduction model of the human head. <i>European Physical Journal Plus</i> , 2018, 133, 1.	2.6	131
3	Intelligent computing for numerical treatment of nonlinear prey-predator models. <i>Applied Soft Computing Journal</i> , 2019, 80, 506-524.	7.2	128
4	Stochastic numerical technique for solving HIV infection model of CD4+ T cells. <i>European Physical Journal Plus</i> , 2020, 135, 1.	2.6	127
5	A stochastic computational intelligent solver for numerical treatment of mosquito dispersal model in a heterogeneous environment. <i>European Physical Journal Plus</i> , 2020, 135, 1.	2.6	126
6	Novel design of Morlet wavelet neural network for solving second order Lane-Emden equation. <i>Mathematics and Computers in Simulation</i> , 2020, 172, 1-14.	4.4	126
7	A Stochastic Intelligent Computing with Neuro-Evolution Heuristics for Nonlinear Sitr System of Novel COVID-19 Dynamics. <i>Symmetry</i> , 2020, 12, 1628.	2.2	116
8	Numerical solution of doubly singular nonlinear systems using neural networks-based integrated intelligent computing. <i>Neural Computing and Applications</i> , 2019, 31, 793-812.	5.6	100
9	A novel design of fractional Meyer wavelet neural networks with application to the nonlinear singular fractional Lane-Emden systems. <i>AEJ - Alexandria Engineering Journal</i> , 2021, 60, 2641-2659.	6.4	92
10	Neuro-swarm intelligent computing to solve the second-order singular functional differential model. <i>European Physical Journal Plus</i> , 2020, 135, 1.	2.6	88
11	Design of neuro-swarming-based heuristics to solve the third-order nonlinear multi-singular Emden-Fowler equation. <i>European Physical Journal Plus</i> , 2020, 135, 1.	2.6	87
12	Heuristic computing technique for numerical solutions of nonlinear fourth order Emden-Fowler equation. <i>Mathematics and Computers in Simulation</i> , 2020, 178, 534-548.	4.4	85
13	FMNEICS: fractional Meyer neuro-evolution-based intelligent computing solver for doubly singular multi-fractional order Lane-Emden system. <i>Computational and Applied Mathematics</i> , 2020, 39, 1.	2.2	82
14	DESIGN OF A NONLINEAR Sitr FRACTAL MODEL BASED ON THE DYNAMICS OF A NOVEL CORONAVIRUS (COVID-19). <i>Fractals</i> , 2020, 28, 2040026.	3.7	82
15	A stochastic numerical computing heuristic of SIR nonlinear model based on dengue fever. <i>Results in Physics</i> , 2020, 19, 103585.	4.1	81
16	Stochastic numerical investigations for nonlinear three-species food chain system. <i>International Journal of Biomathematics</i> , 2022, 15, .	2.9	81
17	Integrated neuro-swarm heuristic with interior-point for nonlinear Sitr model for dynamics of novel COVID-19. <i>AEJ - Alexandria Engineering Journal</i> , 2021, 60, 2811-2824.	6.4	79
18	Design of stochastic solvers based on genetic algorithms for solving nonlinear equations. <i>Neural Computing and Applications</i> , 2015, 26, 1-23.	5.6	74

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19	Solving a new design of nonlinear second-order Lane–Emden pantograph delay differential model via Bernoulli collocation method. <i>European Physical Journal Plus</i> , 2020, 135, 1.	2.6	74
20	Design and Numerical Solutions of a Novel Third-Order Nonlinear Emden–Fowler Delay Differential Model. <i>Mathematical Problems in Engineering</i> , 2020, 2020, 1-9.	1.1	73
21	The Effects of Activation Energy and Thermophoretic Diffusion of Nanoparticles on Steady Micropolar Fluid along with Brownian Motion. <i>Advances in Materials Science and Engineering</i> , 2020, 2020, 1-12.	1.8	72
22	A Neuro-Swarming Intelligence-Based Computing for Second Order Singular Periodic Non-linear Boundary Value Problems. <i>Frontiers in Physics</i> , 2020, 8, .	2.1	72
23	Neuro-swarm intelligent computing paradigm for nonlinear HIV infection model with CD4+ T-cells. <i>Mathematics and Computers in Simulation</i> , 2021, 188, 241-253.	4.4	69
24	Integrated intelligent computing with neuro-swarming solver for multi-singular fourth-order nonlinear Emden–Fowler equation. <i>Computational and Applied Mathematics</i> , 2020, 39, 1.	2.2	64
25	Characteristics of melting heat transport of blood with time-dependent cross-nanofluid model using Keller–Box and BVP4C method. <i>Engineering With Computers</i> , 2022, 38, 3705-3719.	6.1	62
26	Solving a novel designed second order nonlinear Lane–Emden delay differential model using the heuristic techniques. <i>Applied Soft Computing Journal</i> , 2021, 102, 107105.	7.2	62
27	Nanoscale heat and mass transport of magnetized 3-D chemically radiative hybrid nanofluid with orthogonal/inclined magnetic field along rotating sheet. <i>Case Studies in Thermal Engineering</i> , 2021, 26, 101193.	5.7	62
28	A novel study of Morlet neural networks to solve the nonlinear HIV infection system of latently infected cells. <i>Results in Physics</i> , 2021, 25, 104235.	4.1	61
29	Stochastic numerical approach for solving second order nonlinear singular functional differential equation. <i>Applied Mathematics and Computation</i> , 2019, 363, 124605.	2.2	57
30	FRACTIONAL MAYER NEURO-SWARM HEURISTIC SOLVER FOR MULTI-FRACTIONAL ORDER DOUBLY SINGULAR MODEL BASED ON LANE–EMDEN EQUATION. <i>Fractals</i> , 2021, 29, 2140017.	3.7	55
31	Numerical Treatment for the Three-Dimensional Eyring-Powell Fluid Flow over a Stretching Sheet with Velocity Slip and Activation Energy. <i>Advances in Mathematical Physics</i> , 2019, 2019, 1-12.	0.8	53
32	Integrated intelligent computing paradigm for nonlinear multi-singular third-order Emden–Fowler equation. <i>Neural Computing and Applications</i> , 2021, 33, 3417-3436.	5.6	53
33	Numerical investigations to design a novel model based on the fifth order system of Emden–Fowler equations. <i>Theoretical and Applied Mechanics Letters</i> , 2020, 10, 333-342.	2.8	52
34	Analytical and Approximate Solutions of a Novel Nervous Stomach Mathematical Model. <i>Discrete Dynamics in Nature and Society</i> , 2020, 2020, 1-9.	0.9	50
35	The 3-D flow of Casson nanofluid over a stretched sheet with chemical reactions, velocity slip, thermal radiation and Brownian motion. <i>Thermal Science</i> , 2020, 24, 2929-2939.	1.1	50
36	Intelligence computing approach for solving second order system of Emden–Fowler model. <i>Journal of Intelligent and Fuzzy Systems</i> , 2020, 38, 7391-7406.	1.4	49

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37	Numerical investigations of a new singular second-order nonlinear coupled functional Lane-Emden model. <i>Open Physics</i> , 2020, 18, 770-778.	1.7	49
38	Interpretation of infinite shear rate viscosity and a nonuniform heat sink/source on a 3D radiative cross nanofluid with buoyancy assisting/opposing flow. <i>Heat Transfer</i> , 2021, 50, 4192-4232.	3.0	46
39	Heuristic computational design of Morlet wavelet for solving the higher order singular nonlinear differential equations. <i>AEJ - Alexandria Engineering Journal</i> , 2021, 60, 5935-5947.	6.4	46
40	An Efficient Stochastic Numerical Computing Framework for the Nonlinear Higher Order Singular Models. <i>Fractal and Fractional</i> , 2021, 5, 176.	3.3	46
41	Design of stochastic numerical solver for the solution of singular three-point second-order boundary value problems. <i>Neural Computing and Applications</i> , 2021, 33, 2427-2443.	5.6	45
42	Design of Morlet Wavelet Neural Network for Solving a Class of Singular Pantograph Nonlinear Differential Models. <i>IEEE Access</i> , 2021, 9, 77845-77862.	4.2	45
43	Neuron analysis through the swarming procedures for the singular two-point boundary value problems arising in the theory of thermal explosion. <i>European Physical Journal Plus</i> , 2022, 137, .	2.6	45
44	DYNAMICAL ANALYSIS OF A NOVEL DISCRETE FRACTIONAL SITRS MODEL FOR COVID-19. <i>Fractals</i> , 2021, 29, .	3.7	44
45	Numerical investigations of the nonlinear smoke model using the Gudermannian neural networks. <i>Mathematical Biosciences and Engineering</i> , 2022, 19, 351-370.	1.9	44
46	A Computational Analysis of Two-Phase Casson Nanofluid Passing a Stretching Sheet Using Chemical Reactions and Gyrotactic Microorganisms. <i>Mathematical Problems in Engineering</i> , 2019, 2019, 1-12.	1.1	43
47	A numerical approach for 2-D Sutterby fluid-flow bounded at a stagnation point with an inclined magnetic field and thermal radiation impacts. <i>Thermal Science</i> , 2021, 25, 1975-1987.	1.1	43
48	Meyer wavelet neural networks to solve a novel design of fractional order pantograph Lane-Emden differential model. <i>Chaos, Solitons and Fractals</i> , 2021, 152, 111404.	5.1	42
49	On a New Model Based on Third-Order Nonlinear Multisingular Functional Differential Equations. <i>Mathematical Problems in Engineering</i> , 2020, 2020, 1-9.	1.1	39
50	Evolutionary computing for nonlinear singular boundary value problems using neural network, genetic algorithm and active-set algorithm. <i>European Physical Journal Plus</i> , 2021, 136, 1.	2.6	39
51	Multiple characteristics of three-dimensional radiative Cross fluid with velocity slip and inclined magnetic field over a stretching sheet. <i>Heat Transfer</i> , 2021, 50, 3325-3341.	3.0	38
52	Nanoscale energy transport of inclined magnetized 3D hybrid nanofluid with Lobatto IIIA scheme. <i>Heat Transfer</i> , 2021, 50, 6465-6490.	3.0	38
53	Higher order chemical process with heat transport of magnetized cross nanofluid over wedge geometry. <i>Heat Transfer</i> , 2021, 50, 3196-3219.	3.0	37
54	Artificial neural network scheme to solve the nonlinear influenza disease model. <i>Biomedical Signal Processing and Control</i> , 2022, 75, 103594.	5.7	37

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55	Solving a class of biological HIV infection model of latently infected cells using heuristic approach. <i>Discrete and Continuous Dynamical Systems - Series S</i> , 2021, 14, 3611.	1.1	35
56	Neuro-evolution computing for nonlinear multi-singular system of third order Emdenâ€Fowler equation. <i>Mathematics and Computers in Simulation</i> , 2021, 185, 799-812.	4.4	35
57	A numerical simulation of the fractional order Leptospirosis model using the supervise neural network. <i>AEJ - Alexandria Engineering Journal</i> , 2022, 61, 12431-12441.	6.4	33
58	Intelligent Backpropagation Networks with Bayesian Regularization for Mathematical Models of Environmental Economic Systems. <i>Sustainability</i> , 2021, 13, 9537.	3.2	31
59	Aspects of infinite shear rate viscosity and heat transport of magnetized Carreau nanofluid. <i>European Physical Journal Plus</i> , 2022, 137, 1.	2.6	31
60	DESIGN OF NEURO-SWARMING HEURISTIC SOLVER FOR MULTI-PANTOGRAPH SINGULAR DELAY DIFFERENTIAL EQUATION. <i>Fractals</i> , 2021, 29, 2140022.	3.7	30
61	Upshot of radiative rotating Prandtl fluid flow over a slippery surface embedded with variable species diffusivity and multiple convective boundary conditions. <i>Heat Transfer</i> , 2021, 50, 2874-2894.	3.0	28
62	Integrated intelligence of neuro-evolution with sequential quadratic programming for second-order Laneâ€Emden pantograph models. <i>Mathematics and Computers in Simulation</i> , 2021, 188, 87-101.	4.4	28
63	FMNSICS: Fractional Meyer neuro-swarm intelligent computing solver for nonlinear fractional Laneâ€Emden systems. <i>Neural Computing and Applications</i> , 2022, 34, 4193-4206.	5.6	28
64	An advanced heuristic approach for a nonlinear mathematical based medical smoking model. <i>Results in Physics</i> , 2022, 32, 105137.	4.1	28
65	Neuro-swarms intelligent computing using Gudermannian kernel for solving a class of second order Lane-Emden singular nonlinear model. <i>AIMS Mathematics</i> , 2020, 6, 2468-2485.	1.6	27
66	Insight into the dynamics of time-dependent cross nanofluid on a melting surface subject to cubic autocatalysis. <i>Case Studies in Thermal Engineering</i> , 2021, 27, 101227.	5.7	27
67	A hybrid swarming computing approach to solve the biological nonlinear Leptospirosis system. <i>Biomedical Signal Processing and Control</i> , 2022, 77, 103789.	5.7	27
68	Integrated neuroâ€evolution heuristic with sequential quadratic programming for secondâ€order prediction differential models. <i>Numerical Methods for Partial Differential Equations</i> , 2024, 40, .	3.6	26
69	Evolutionary heuristic with Gudermannian neural networks for the nonlinear singular models of third kind. <i>Physica Scripta</i> , 2021, 96, 125261.	2.5	26
70	Gudermannian neural networks using the optimization procedures of genetic algorithm and active set approach for the three-species food chain nonlinear model. <i>Journal of Ambient Intelligence and Humanized Computing</i> , 2023, 14, 8913-8922.	4.9	26
71	On heated surface transport of heat bearing thermal radiation and MHD Cross flow with effects of nonuniform heat sink/source and buoyancy opposing/assisting flow. <i>Heat Transfer</i> , 2021, 50, 6110-6128.	3.0	25
72	Evolutionary Integrated Heuristic with Gudermannian Neural Networks for Second Kind of Laneâ€Emden Nonlinear Singular Models. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 4725.	2.5	25

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73	A Novel Design of Morlet Wavelet to Solve the Dynamics of Nervous Stomach Nonlinear Model. International Journal of Computational Intelligence Systems, 2022, 15, 1.	2.7	25
74	Spectral relaxation approach and velocity slip stagnation point flow of inclined magnetized cross-nanofluid with a quadratic multiple regression model. Waves in Random and Complex Media, 0, , 1-25.	2.7	25
75	Computational intelligence approach using Levenbergâ€“Marquardt backpropagation neural networks to solve the fourth-order nonlinear system of Emdenâ€“Fowler model. Engineering With Computers, 2022, 38, 2975-2991.	6.1	24
76	APPLICATIONS OF GUDERMANNIAN NEURAL NETWORK FOR SOLVING THE SITR FRACTAL SYSTEM. Fractals, 2021, 29, .	3.7	23
77	Inclined magnetized and energy transportation aspect of infinite shear rate viscosity model of Carreau nanofluid with multiple features over wedge geometry. Heat Transfer, 2022, 51, 1622-1648.	3.0	23
78	IoT Technology Enabled Heuristic Model With Morlet Wavelet Neural Network for Numerical Treatment of Heterogeneous Mosquito Release Ecosystem. IEEE Access, 2021, 9, 132897-132913.	4.2	21
79	Intelligent Computing with Levenbergâ€“Marquardt Backpropagation Neural Networks for Third-Grade Nanofluid Over a Stretched Sheet with Convective Conditions. Arabian Journal for Science and Engineering, 2022, 47, 8211-8229.	3.0	21
80	A Numerical Study of the Fractional Order Dynamical Nonlinear Susceptible Infected and Quarantine Differential Model Using the Stochastic Numerical Approach. Fractal and Fractional, 2022, 6, 139.	3.3	21
81	Solution of novel multi-fractional multi-singular Laneâ€“Emden model using the designed FMNEICS. Neural Computing and Applications, 0, , 1.	5.6	20
82	Energy transference in timeâ€“dependent Cattaneoâ€“Christov double diffusion of secondâ€“grade fluid with variable thermal conductivity. Heat Transfer, 2021, 50, 8224-8242.	3.0	20
83	Designing of Morlet wavelet as a neural network for a novel prevention category in the HIV system. International Journal of Biomathematics, 2022, 15, .	2.9	20
84	A Neuro-Evolution Heuristic Using Active-Set Techniques to Solve a Novel Nonlinear Singular Prediction Differential Model. Fractal and Fractional, 2022, 6, 29.	3.3	19
85	A novel design of Gudermannian function as a neural network for the singular nonlinear delayed, prediction and pantograph differential models. Mathematical Biosciences and Engineering, 2021, 19, 663-687.	1.9	17
86	A novel computing stochastic algorithm to solve the nonlinear singular periodic boundary value problems. International Journal of Computer Mathematics, 2022, 99, 2091-2104.	1.8	17
87	Design of neuro-swarming computational solver for the fractional Bagleyâ€“Torvik mathematical model. European Physical Journal Plus, 2022, 137, 245.	2.6	17
88	Numerical treatment on the new fractional-order SIDARTHE COVID-19 pandemic differential model via neural networks. European Physical Journal Plus, 2022, 137, 334.	2.6	17
89	Computational Intelligent Paradigms to Solve the Nonlinear SIR System for Spreading Infection and Treatment Using Levenbergâ€“Marquardt Backpropagation. Symmetry, 2021, 13, 618.	2.2	16
90	Magnetic dipole aspect of binary chemical reactive Cross nanofluid and heat transport over composite cylindrical panels. Waves in Random and Complex Media, 0, , 1-24.	2.7	16

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91	Design of a Novel Second-Order Prediction Differential Model Solved by Using Adams and Explicit Runge-Kutta Numerical Methods. <i>Mathematical Problems in Engineering</i> , 2020, 2020, 1-7.	1.1	15
92	Applications of neural networks for the novel designed of nonlinear fractional seventh order singular system. <i>European Physical Journal: Special Topics</i> , 2022, 231, 1831-1845.	2.6	15
93	Numerical Simulations of Vaccination and Wolbachia on Dengue Transmission Dynamics in the Nonlinear Model. <i>IEEE Access</i> , 2022, 10, 31116-31144.	4.2	15
94	An advanced computing scheme for the numerical investigations of an infection-based fractional-order nonlinear prey-predator system. <i>PLoS ONE</i> , 2022, 17, e0265064.	2.5	15
95	Design of Gudermannian Neuroswarming to solve the singular Emden-Fowler nonlinear model numerically. <i>Nonlinear Dynamics</i> , 2021, 106, 3199-3214.	5.2	14
96	Solving an Infectious Disease Model considering Its Anatomical Variables with Stochastic Numerical Procedures. <i>Journal of Healthcare Engineering</i> , 2022, 2022, 1-12.	1.9	14
97	Analysis of the nanoscale heat transport and Lorentz force based on the time-dependent Cross nanofluid. <i>Engineering With Computers</i> , 2023, 39, 2089-2108.	6.1	14
98	Numerical Investigations of the Fractional-Order Mathematical Model Underlying Immune-Chemotherapeutic Treatment for Breast Cancer Using the Neural Networks. <i>Fractal and Fractional</i> , 2022, 6, 184.	3.3	14
99	Melting and entropy generation of infinite shear rate viscosity Carreau model over Riga plate with erratic thickness: a numerical Keller Box approach. <i>Waves in Random and Complex Media</i> , 0, , 1-25.	2.7	13
100	Numeric treatment of nonlinear second order multi-point boundary value problems using ANN, GAs and sequential quadratic programming technique. <i>International Journal of Industrial Engineering Computations</i> , 2014, 5, 431-442.	0.7	12
101	A neuro-swarming intelligent heuristic for second-order nonlinear Lane-Emden multi-pantograph delay differential system. <i>Complex & Intelligent Systems</i> , 0, , 1.	6.5	12
102	Supervised Neural Network Procedures for the Novel Fractional Food Supply Model. <i>Fractal and Fractional</i> , 2022, 6, 333.	3.3	11
103	Design of Morlet wavelet neural network to solve the non-linear influenza disease system. <i>Applied Mathematics and Nonlinear Sciences</i> , 2023, 8, 2033-2048.	1.6	10
104	A computational framework to solve the nonlinear dengue fever SIR system. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2022, 25, 1821-1834.	1.6	10
105	Competency of Neural Networks for the Numerical Treatment of Nonlinear Host-Vector-Predator Model. <i>Computational and Mathematical Methods in Medicine</i> , 2021, 2021, 1-13.	1.3	9
106	Numerical Investigations through ANNs for Solving COVID-19 Model. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 12192.	2.6	9
107	Dynamics of multi-point singular fifth-order Lane-Emden system with neuro-evolution heuristics. <i>Evolving Systems</i> , 0, , 1.	3.9	9
108	Neuron Analysis of the Two-Point Singular Boundary Value Problems Arising in the Thermal Explosion Theory. <i>Neural Processing Letters</i> , 2022, 54, 4297-4324.	3.2	9

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109	Investigations of non-linear induction motor model using the Gudermannian neural networks. <i>Thermal Science</i> , 2022, 26, 3399-3412.	1.1	8
110	Neuro-Swarm heuristic using interior-point algorithm to solve a third kind of multi-singular nonlinear system. <i>Mathematical Biosciences and Engineering</i> , 2021, 18, 5285-5308.	1.9	8
111	Numerical Study of the Environmental and Economic System through the Computational Heuristic Based on Artificial Neural Networks. <i>Sensors</i> , 2021, 21, 6567.	3.8	7
112	Artificial Neural Networks to Solve the Singular Model with Neumann-Robin, Dirichlet and Neumann Boundary Conditions. <i>Sensors</i> , 2021, 21, 6498.	3.8	7
113	An advance artificial neural network scheme to examine the waste plastic management in the ocean. <i>AIP Advances</i> , 2022, 12, .	1.3	7
114	Swarm Intelligence Procedures Using Meyer Wavelets as a Neural Network for the Novel Fractional Order Pantograph Singular System. <i>Fractal and Fractional</i> , 2021, 5, 277.	3.3	7
115	Soft Computing Paradigms to Find the Numerical Solutions of a Nonlinear Influenza Disease Model. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 8549.	2.5	6
116	An Advance Computing Numerical Heuristic of Nonlinear SIR Dengue Fever System Using the Morlet Wavelet Kernel. <i>Journal of Healthcare Engineering</i> , 2022, 2022, 1-14.	1.9	6
117	GUDERMANNIAN NEURAL NETWORKS TO INVESTIGATE THE LIÅ%NARD DIFFERENTIAL MODEL. <i>Fractals</i> , 2022, 30, .	3.7	6
118	Intelligent computing technique for solving singular multi-pantograph delay differential equation. <i>Soft Computing</i> , 2022, 26, 6701-6713.	3.6	6
119	A hybrid computing approach to design the novel second order singular perturbed delay differential Lane-Emden model. <i>Physica Scripta</i> , 2022, 97, 085002.	2.5	5
120	A novel design of a sixth-order nonlinear modeling for solving engineering phenomena based on neuro intelligence algorithm. <i>Engineering With Computers</i> , 0, , 1.	6.1	3
121	Dynamics of three-point boundary value problems with Gudermannian neural networks. <i>Evolutionary Intelligence</i> , 2023, 16, 697-709.	3.6	3
122	Cubic autocatalysis-based activation energy and thermophoretic diffusion effects of steady micro-polar nano-fluid. <i>Microfluidics and Nanofluidics</i> , 2022, 26, .	2.2	3
123	Design of Mayer Wavelet Neural Networks for Solving Functional Nonlinear Singular Differential Equation. <i>Mathematical Problems in Engineering</i> , 2022, 2022, 1-11.	1.1	2
124	Application of a Novel Collocation Approach for Simulating a Class of Nonlinear Third-Order Lane-Emden Model. <i>Mathematical Problems in Engineering</i> , 2022, 2022, 1-16.	1.1	2
125	Numerical treatment for the nonlinear fifth kind of multi-singular differential model: a neuro-swarming approach. <i>Physica Scripta</i> , 2022, 97, 075203.	2.5	0