

Mani Mehra

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4436308/publications.pdf>

Version: 2024-02-01

75
papers

827
citations

471371

17
h-index

642610

23
g-index

80
all docs

80
docs citations

80
times ranked

259
citing authors

#	ARTICLE	IF	CITATIONS
1	A modified variable-order fractional SIR model to predict the spread of COVID-19 in India. <i>Mathematical Methods in the Applied Sciences</i> , 2023, 46, 8208-8222.	1.2	13
2	Legendre wavelet method for solving variable-order nonlinear fractional optimal control problems with variable-order fractional Bolza cost. <i>Asian Journal of Control</i> , 2023, 25, 2122-2138.	1.9	4
3	An approach based on Haar wavelet for the approximation of fractional calculus with application to initial and boundary value problems. <i>Mathematical Methods in the Applied Sciences</i> , 2021, 44, 3195-3213.	1.2	18
4	Spectral graph wavelet regularization and adaptive wavelet for the backward heat conduction problem. <i>Inverse Problems in Science and Engineering</i> , 2021, 29, 457-488.	1.2	3
5	Collocation method for solving nonlinear fractional optimal control problems by using Hermite scaling function with error estimates. <i>Optimal Control Applications and Methods</i> , 2021, 42, 417-444.	1.3	25
6	Legendre wavelet collocation method for fractional optimal control problems with fractional Bolza cost. <i>Numerical Methods for Partial Differential Equations</i> , 2021, 37, 1693-1724.	2.0	30
7	Fractional optimal control problems on a star graph: Optimality system and numerical solution. <i>Mathematical Control and Related Fields</i> , 2021, 11, 189-209.	0.6	26
8	Existence results and stability analysis for a nonlinear fractional boundary value problem on a circular ring with an attached edge : A study of fractional calculus on metric graph. <i>Networks and Heterogeneous Media</i> , 2021, 16, 155.	0.5	11
9	Existence and Uniqueness of Time-Fractional Diffusion Equation on a Metric Star Graph. <i>Communications in Computer and Information Science</i> , 2021, , 25-41.	0.4	1
10	Compact Finite Difference Method for Pricing European and American Options Under Jump-Diffusion Models. <i>Communications in Computer and Information Science</i> , 2021, , 91-108.	0.4	0
11	An adaptive spectral graph wavelet method for PDEs on networks. <i>Advances in Computational Mathematics</i> , 2021, 47, 1.	0.8	7
12	Wavelet collocation method based on Legendre polynomials and its application in solving the stochastic fractional integro-differential equations. <i>Journal of Computational Science</i> , 2021, 51, 101342.	1.5	27
13	The Crank-Nicolson Type Compact Difference Schemes for a Loaded Time-Fractional Hallaire Equation. <i>Fractional Calculus and Applied Analysis</i> , 2021, 24, 1231-1256.	1.2	11
14	Analytic and Numerical Solutions of Space-Time Fractional Diffusion Wave Equations with Different Fractional Order. <i>Lecture Notes in Computer Science</i> , 2021, , 408-421.	1.0	0
15	Wavelet-optimized compact finite difference method for convection-diffusion equations. <i>International Journal of Nonlinear Sciences and Numerical Simulation</i> , 2021, 22, 353-372.	0.4	6
16	Optimal Control Problems Driven by Time-Fractional Diffusion Equations on Metric Graphs: Optimality System and Finite Difference Approximation. <i>SIAM Journal on Control and Optimization</i> , 2021, 59, 4216-4242.	1.1	20
17	Nonhomogeneous backward heat conduction problem: Compact filter regularization and error estimates. <i>Journal of Applied Mathematics and Computing</i> , 2020, 62, 547-564.	1.2	0
18	A fast adaptive spectral graph wavelet method for the viscous Burgers' equation on a star-shaped connected graph. <i>Mathematical Methods in the Applied Sciences</i> , 2020, 43, 7595-7614.	1.2	15

#	ARTICLE	IF	CITATIONS
19	A difference scheme for the time-fractional diffusion equation on a metric star graph. Applied Numerical Mathematics, 2020, 158, 152-163.	1.2	23
20	Compact filtering as a regularization technique for a backward heat conduction problem. Applied Numerical Mathematics, 2020, 153, 82-97.	1.2	4
21	Uncertainty Quantification in Fractional Stochastic Integro-Differential Equations Using Legendre Wavelet Collocation Method. Lecture Notes in Computer Science, 2020, , 58-71.	1.0	10
22	Fourth order compact scheme for space fractional advection-diffusion reaction equations with variable coefficients. Journal of Computational and Applied Mathematics, 2020, 380, 112963.	1.1	30
23	A Compact Filter Regularization Method for Solving Sideways Heat Equation. Lecture Notes in Computer Science, 2020, , 470-477.	1.0	0
24	Existence and uniqueness results for a nonlinear Caputo fractional boundary value problem on a star graph. Journal of Mathematical Analysis and Applications, 2019, 477, 1243-1264.	0.5	43
25	Fourth-Order Compact Difference Scheme for the Backward Heat Conduction Problem. International Journal for Computational Methods in Engineering Science and Mechanics, 2019, 20, 380-394.	1.4	0
26	High-Order Compact Finite Difference Scheme for Pricing Asian Option with Moving Boundary Condition. Differential Equations and Dynamical Systems, 2019, 27, 39-56.	0.5	12
27	Algorithm 986. ACM Transactions on Mathematical Software, 2018, 44, 1-31.	1.6	24
28	An Adaptive Wavelet Collocation Method for Solution of the Convection-Dominated Problem on a Sphere. International Journal of Computational Methods, 2018, 15, 1850080.	0.8	2
29	A numerical study of Asian option with high-order compact finite difference scheme. Journal of Applied Mathematics and Computing, 2018, 57, 467-491.	1.2	11
30	Wavelet-Galerkin Methods. Forum for Interdisciplinary Mathematics, 2018, , 121-133.	0.8	1
31	Other Wavelet-Based Numerical Methods. Forum for Interdisciplinary Mathematics, 2018, , 143-153.	0.8	0
32	Wavelets on Arbitrary Manifolds. Forum for Interdisciplinary Mathematics, 2018, , 77-93.	0.8	0
33	Introduction to Numerical Methods. Forum for Interdisciplinary Mathematics, 2018, , 109-119.	0.8	0
34	Applications of Wavelet in Inverse Problems. Forum for Interdisciplinary Mathematics, 2018, , 157-171.	0.8	1
35	Wavelets on Flat Geometries. Forum for Interdisciplinary Mathematics, 2018, , 27-76.	0.8	0
36	Wavelets Theory and Its Applications. Forum for Interdisciplinary Mathematics, 2018, , .	0.8	17

#	ARTICLE	IF	CITATIONS
37	FOURTH-ORDER COMPACT SCHEME FOR OPTION PRICING UNDER THE MERTON'S AND KOU'S JUMP-DIFFUSION MODELS. International Journal of Theoretical and Applied Finance, 2018, 21, 1850027.	0.2	13
38	Wavelet Collocation Methods. Forum for Interdisciplinary Mathematics, 2018, , 135-141.	0.8	0
39	Other Useful Applications of Wavelet. Forum for Interdisciplinary Mathematics, 2018, , 173-182.	0.8	0
40	Fourth-Order Compact Finite Difference Scheme for American Option Pricing Under Regime-Switching Jump-Diffusion Models. International Journal of Applied and Computational Mathematics, 2017, 3, 547-567.	0.9	17
41	An adaptive meshfree spectral graph wavelet method for partial differential equations. Applied Numerical Mathematics, 2017, 113, 168-185.	1.2	18
42	Approximation of the differential operators on an adaptive spherical geodesic grid using spherical wavelets. Mathematics and Computers in Simulation, 2017, 132, 120-138.	2.4	2
43	Fast diffusion wavelet method for partial differential equations. Applied Mathematical Modelling, 2016, 40, 5000-5025.	2.2	8
44	Multilevel approximation of the gradient operator on an adaptive spherical geodesic grid. Advances in Computational Mathematics, 2015, 41, 663-689.	0.8	2
45	A Dynamic Adaptive Wavelet Method for Solution of the Schrodinger Equation. Journal of Multiscale Modeling, 2015, 06, 1450001.	1.0	2
46	Solutions of Differentialâ€“Difference Equations Arising from Mathematical Models of Granulocytopoiesis. Differential Equations and Dynamical Systems, 2014, 22, 33-49.	0.5	11
47	An adaptive meshfree diffusion wavelet method for partial differential equations on the sphere. Journal of Computational Physics, 2014, 272, 747-771.	1.9	15
48	A fast adaptive diffusion wavelet method for Burger's equation. Computers and Mathematics With Applications, 2014, 68, 568-577.	1.4	14
49	Integration of barotropic vorticity equation over spherical geodesic grid using multilevel adaptive wavelet collocation method. Applied Mathematical Modelling, 2013, 37, 5215-5226.	2.2	5
50	APPROXIMATE SOLUTION OF MODIFIED CAMASSAâ€“HOLM AND DEGASPERISâ€“PROCESI EQUATIONS USING WAVELET OPTIMIZED FINITE DIFFERENCE METHOD. International Journal of Wavelets, Multiresolution and Information Processing, 2013, 11, 1350019.	0.9	4
51	Algorithm 929. ACM Transactions on Mathematical Software, 2013, 39, 1-28.	1.6	6
52	Comparison Between Different Numerical Methods for Discretization of PDEs-A Short Review. , 2010, , .		2
53	Wavelets and Differential Equations-A short review. , 2009, , .		11
54	Wavelet optimized finite difference method using interpolating wavelets for self-adjoint singularly perturbed problems. Journal of Computational and Applied Mathematics, 2009, 230, 803-812.	1.1	20

#	ARTICLE	IF	CITATIONS
55	ERROR ESTIMATES FOR LINEAR PDEs SOLVED BY WAVELET BASED TAYLORâ€™GALERKIN SCHEMES. International Journal of Wavelets, Multiresolution and Information Processing, 2009, 07, 143-162.	0.9	2
56	An adaptive wavelet collocation method for the solution of partial differential equations on the sphere. Journal of Computational Physics, 2008, 227, 5610-5632.	1.9	56
57	An Adaptive Multilevel Wavelet Solver for Elliptic Equations on an Optimal Spherical Geodesic Grid. SIAM Journal of Scientific Computing, 2008, 30, 3073-3086.	1.3	13
58	ERROR ESTIMATES FOR TIME ACCURATE WAVELET BASED SCHEMES FOR HYPERBOLIC PARTIAL DIFFERENTIAL EQUATIONS. International Journal of Wavelets, Multiresolution and Information Processing, 2007, 05, 667-678.	0.9	3
59	CUBIC SPLINE ADAPTIVE WAVELET SCHEME TO SOLVE SINGULARLY PERTURBED REACTION DIFFUSION PROBLEMS. International Journal of Wavelets, Multiresolution and Information Processing, 2007, 05, 317-331.	0.9	20
60	Fast wavelet-Taylor Galerkin method for linear and non-linear wave problems. Applied Mathematics and Computation, 2007, 189, 1292-1299.	1.4	10
61	Time accurate fast wavelet-Taylor Galerkin method for partial differential equations. Numerical Methods for Partial Differential Equations, 2006, 22, 274-295.	2.0	11
62	TIME ACCURATE FAST THREE-STEP WAVELET-GALERKIN METHOD FOR PARTIAL DIFFERENTIAL EQUATIONS. International Journal of Wavelets, Multiresolution and Information Processing, 2006, 04, 65-79.	0.9	14
63	A three-step wavelet Galerkin method for parabolic and hyperbolic partial differential equations. International Journal of Computer Mathematics, 2006, 83, 143-157.	1.0	23
64	A time-accurate pseudo-wavelet scheme for parabolic and hyperbolic PDE's. Nonlinear Analysis: Theory, Methods & Applications, 2005, 63, e345-e356.	0.6	6
65	Time-accurate solutions of Kortewegâ€™de Vries equation using wavelet Galerkin method. Applied Mathematics and Computation, 2005, 162, 447-460.	1.4	12
66	Wavelet multilayer Taylor Galerkin schemes for hyperbolic and parabolic problems. Applied Mathematics and Computation, 2005, 166, 312-323.	1.4	6
67	Wavelet based preconditioners for sparse linear systems. Applied Mathematics and Computation, 2005, 171, 203-224.	1.4	7
68	Time-accurate solution of advection-diffusion problems by wavelet-Taylor-Galerkin method. Communications in Numerical Methods in Engineering, 2005, 21, 313-326.	1.3	26
69	Non-stationary iterative solvers on a PC cluster. Advances in Engineering Software, 2005, 36, 393-400.	1.8	2
70	Wavelet-Taylor Galerkin Method for the Burgers Equation. BIT Numerical Mathematics, 2005, 45, 543-560.	1.0	27
71	A WAVELET-TAYLOR GALERKIN METHOD FOR PARABOLIC AND HYPERBOLIC PARTIAL DIFFERENTIAL EQUATIONS. International Journal of Computational Methods, 2005, 02, 75-97.	0.8	17
72	A TIME ACCURATE PSEUDO-WAVELET SCHEME FOR TWO-DIMENSIONAL TURBULENCE. International Journal of Wavelets, Multiresolution and Information Processing, 2005, 03, 587-599.	0.9	6

#	ARTICLE	IF	CITATIONS
73	KRYLOV SUBSPACE SOLVERS IN PARALLEL NUMERICAL COMPUTATIONS OF PARTIAL DIFFERENTIAL EQUATIONS MODELING HEAT TRANSFER APPLICATIONS. Numerical Heat Transfer; Part A: Applications, 2004, 45, 479-503.	1.2	6
74	Learning parameters of a system of variable order fractional differential equations. Numerical Methods for Partial Differential Equations, 0, , .	2.0	10
75	Numerical solution of variable order stochastic fractional integro differential equation with a collocation method based on Müntz Legendre polynomial. Mathematical Methods in the Applied Sciences, 0, , .	1.2	3