Mohammad Reza Eslahchi

List of Publications by Year
in descending order

41 papers	**616** citations	759055 **12** h-index	610775 **24** g-index
41 all docs	**41** docs citations	**41** times ranked	**392** citing authors

#	Article	IF	Citations
1	Application of the collocation method for solving nonlinear fractional integro-differential equations. Journal of Computational and Applied Mathematics, 2014, 257, 105-128.	1.1	109
2	Fractional Sturm–Liouville boundary value problems in unbounded domains: Theory and applications. Journal of Computational Physics, 2015, 299, 526-560.	1.9	57
3	Numerical solution of fractional advection-diffusion equation with a nonlinear source term. Numerical Algorithms, 2015, 68, 601-629.	1.1	54
4	Application of Taylor series in obtaining the orthogonal operational matrix. Computers and Mathematics With Applications, 2011, 61, 2596-2604.	1.4	42
5	Fractional spectral and pseudo-spectral methods in unbounded domains: Theory and applications. Journal of Computational Physics, 2017, 338, 527-566.	1.9	33
6	A technique for the numerical solution of initial-value problems based on a class of Birkhoff-type interpolation method. Journal of Computational and Applied Mathematics, 2013, 244, 125-139.	1.1	29
7	A method for obtaining the operational matrix of fractional Jacobi functions and applications. JVC/Journal of Vibration and Control, 2014, 20, 736-748.	1.5	29
8	The general Jacobi matrix method for solving some nonlinear ordinary differential equations. Applied Mathematical Modelling, 2012, 36, 3387-3398.	2.2	28
9	A new approach to improve the order of approximation of the Bernstein operators: theory and applications. Numerical Algorithms, 2018, 77, 111-150.	1.1	26
10	Analysis of Ciarlet–Raviart mixed finite element methods for solving damped Boussinesq equation. Journal of Computational and Applied Mathematics, 2020, 379, 112818.	1.1	22
11	The third and fourth kinds of Chebyshev polynomials and best uniform approximation. Mathematical and Computer Modelling, 2012, 55, 1746-1762.	2.0	21
12	A Hybrid Image Denoising Method Based on Integer and Fractional-Order Total Variation. Iranian Journal of Science and Technology, Transaction A: Science, 2020, 44, 1803-1814.	0.7	17
13	Two families of scaled three-term conjugate gradient methods with sufficient descent property for nonconvex optimization. Numerical Algorithms, 2020, 83, 901-933.	1.1	15
14	Best uniform polynomial approximation of some rational functions. Computers and Mathematics With Applications, 2010, 59, 382-390.	1.4	13
15	Optimal Control for a Parabolic–Hyperbolic Free Boundary Problem Modeling the Growth of Tumor with Drug Application. Journal of Optimization Theory and Applications, 2017, 173, 1013-1041.	0.8	12
16	Image denoising by a novel variable–order total fractional variation model. Mathematical Methods in the Applied Sciences, 2021, 44, 7250-7261.	1.2	11
17	Application of collocation method for solving a parabolic–hyperbolic free boundary problem which models the growth of tumor with drug application. Mathematical Methods in the Applied Sciences, 2017, 40, 1711-1733.	1.2	9
18	Global convergence of a family of modified BFGS methods under a modified weak-Wolfe–Powell line search for nonconvex functions. 4or, 2020, 18, 219-244.	1.0	9

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19	Generalized Bessel functions: Theory and their applications. Mathematical Methods in the Applied Sciences, 2017, 40, 6389-6410.	1.2	7
20	Application of fixed point-collocation method for solving an optimal control problem of a parabolic–hyperbolic free boundary problem modeling the growth of tumor with drug application. Computers and Mathematics With Applications, 2018, 75, 2193-2216.	1.4	7
21	Solving a fractional parabolic-hyperbolic free boundary problem which models the growth of tumor with drug application using finite difference-spectral method. Chaos, Solitons and Fractals, 2020, 132, 109538.	2.5	7
22	Extension of Tikhonov regularization method using linear fractional programming. Journal of Computational and Applied Mathematics, 2020, 371, 112677.	1.1	6
23	A new PDE learning model for image denoising. Neural Computing and Applications, 2022, 34, 8551-8574.	3.2	6
24	Quadrature rules using an arbitrary fixed order of derivatives. Computers and Mathematics With Applications, 2009, 57, 1212-1225.	1.4	5
25	A numerical method based on extended Raviart–Thomas (ER–T) mixed finite element method for solving damped Boussinesq equation. Mathematical Methods in the Applied Sciences, 2017, 40, 5906-5924.	1.2	5
26	A new method for detecting individual trees in aerial LiDAR point clouds using absolute height maxima. Environmental Monitoring and Assessment, 2018, 190, 708.	1.3	5
27	The best uniform polynomial approximation to class of the form. Nonlinear Analysis: Theory, Methods & Applications, 2009, 71, 740-750.	0.6	4
28	The use of Jacobi wavelets for constrained approximation of rational Bézier curves. Computational and Applied Mathematics, 2018, 37, 3951-3966.	1.3	4
29	Global convergence of a new sufficient descent spectral three-term conjugate gradient class for large-scale optimization. Optimization Methods and Software, 2022, 37, 830-843.	1.6	4
30	A mixed finite element method for solving coupled wave equation of Kirchhoff type with nonlinear boundary damping and memory term. Mathematical Methods in the Applied Sciences, 2021, 44, 12500.	1.2	4
31	The convergence and stability analysis of the Jacobi collocation method for solving nonlinear fractional differential equations with integral boundary conditions. Mathematical Methods in the Applied Sciences, 2016, 39, 2038-2056.	1.2	3
32	Numerical solution of optimal control problem for a model of tumour growth with drug application. International Journal of Control, 2019, 92, 2712-2736.	1.2	3
33	Optimal control for a nonlinear stochastic parabolic model of population competition. Optimization, 2020, , 1-30.	1.0	2
34	Müntz sturm-liouville problems: Theory and numerical experiments. Fractional Calculus and Applied Analysis, 2021, 24, 775-817.	1.2	2
35	Application of finite difference method in solving a second- and fourth-order PDE blending denoising model. Mathematical Sciences, 0, , 1.	1.0	2
36	Some applications of a hypergeometric identity. Mathematical Sciences, 2015, 9, 215-223.	1.0	1

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37	The convergence and stability analysis of a numerical method for solving a mathematical model of language competition. Applied Numerical Mathematics, 2020, 151, 119-140.	1.2	1
38	Error analysis of finite difference/collocation method for the nonlinear coupled parabolic free boundary problem modeling plaque growth in the artery. Applied Mathematics and Computation, 2021, 405, 126221.	1.4	1
39	A Five-Parameter Class of Derivative-Free Spectral Conjugate Gradient Methods for Systems of Large-Scale Nonlinear Monotone Equations. International Journal of Computational Methods, 2022, 19, .	0.8	1
40	The weighted (0,1,â€¦,mâˆ'2,m)-interpolation technique based on the roots of the classical orthogonal polynomials and application in deriving new quadrature rules. Acta Mathematica Hungarica, 2013, 140, 341-362.	0.3	0
41	A game-theoretic perspective to study a nonlinear stochastic parabolic model of population competition. Optimization, 2023, 72, 1777-1815.	1.0	0