

Pedro M Lima

List of Publications by Year in descending order

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56
papers

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430754

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30
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59
all docs

59
docs citations

59
times ranked

493
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis and numerical methods for fractional differential equations with delay. Journal of Computational and Applied Mathematics, 2013, 252, 159-168.	1.1	115
2	Numerical solution of a class of two-dimensional nonlinear Volterra integral equations using Legendre polynomials. Journal of Computational and Applied Mathematics, 2013, 242, 53-69.	1.1	99
3	Numerical solution of nonlinear two-dimensional integral equations using rationalized Haar functions. Communications in Nonlinear Science and Numerical Simulation, 2011, 16, 1164-1175.	1.7	63
4	Efficient Numerical Solution of the Density Profile Equation in Hydrodynamics. Journal of Scientific Computing, 2007, 32, 411-424.	1.1	50
5	Superconvergence of collocation methods for a class of weakly singular Volterra integral equations. Journal of Computational and Applied Mathematics, 2008, 218, 307-316.	1.1	49
6	A numerical approach for solving fractional optimal control problems using modified hat functions. Communications in Nonlinear Science and Numerical Simulation, 2019, 78, 104849.	1.7	41
7	An effective numerical method for solving fractional pantograph differential equations using modification of hat functions. Applied Numerical Mathematics, 2018, 131, 174-189.	1.2	39
8	An extrapolation method for a Volterra integral equation with weakly singular kernel. Applied Numerical Mathematics, 1997, 24, 131-148.	1.2	38
9	Analytical and numerical investigation of bubble-type solutions of nonlinear singular problems. Journal of Computational and Applied Mathematics, 2006, 189, 260-273.	1.1	35
10	An improved composite collocation method for distributed-order fractional differential equations based on fractional Chelyshkov wavelets. Applied Numerical Mathematics, 2019, 145, 1-27.	1.2	34
11	Numerical solution of a nonuniquely solvable Volterra integral equation using extrapolation methods. Journal of Computational and Applied Mathematics, 2002, 140, 537-557.	1.1	33
12	Two-dimensional integral algebraic systems: Analysis and computational methods. Journal of Computational and Applied Mathematics, 2011, 236, 132-140.	1.1	27
13	Numerical solution of nonlinear fractional integro-differential equations with weakly singular kernels via a modification of hat functions. Applied Mathematics and Computation, 2018, 327, 79-92.	1.4	26
14	Numerical methods and asymptotic error expansions for the Emden-Fowler equations. Journal of Computational and Applied Mathematics, 1996, 70, 245-266.	1.1	21
15	New approach to the numerical solution of forward-backward equations. Frontiers of Mathematics in China, 2009, 4, 155-168.	0.4	21
16	Legendre wavelet collocation method combined with the Gauss-Jacobi quadrature for solving fractional delay-type integro-differential equations. Applied Numerical Mathematics, 2020, 149, 99-112.	1.2	21
17	Numerical modeling of oxygen diffusion in cells with Michaelis-Menten uptake kinetics. Journal of Mathematical Chemistry, 2010, 48, 145-158.	0.7	20
18	Analytical and numerical investigation of mixed-type functional differential equations. Journal of Computational and Applied Mathematics, 2010, 234, 2826-2837.	1.1	20

#	ARTICLE	IF	CITATIONS
19	Smoothing transformation and spline collocation for weakly singular Volterra integro-differential equations. <i>Applied Numerical Mathematics</i> , 2017, 114, 63-76.	1.2	20
20	Numerical methods for a Volterra integral equation with non-smooth solutions. <i>Journal of Computational and Applied Mathematics</i> , 2006, 189, 412-423.	1.1	19
21	Numerical Solution of the Neural Field Equation in the Two-Dimensional Case. <i>SIAM Journal of Scientific Computing</i> , 2015, 37, B962-B979.	1.3	19
22	Finite element solution of a linear mixed-type functional differential equation. <i>Numerical Algorithms</i> , 2010, 55, 301-320.	1.1	18
23	Asymptotic expansions and numerical approximation of nonlinear degenerate boundary-value problems. <i>Applied Numerical Mathematics</i> , 1999, 30, 93-111.	1.2	14
24	A Novel Lagrange Operational Matrix and Tau-Collocation Method for Solving Variable-Order Fractional Differential Equations. <i>Iranian Journal of Science and Technology, Transaction A: Science</i> , 2020, 44, 127-135.	0.7	14
25	Bubbles and droplets in nonlinear physics models: Analysis and numerical simulation of singular nonlinear boundary value problem. <i>Computational Mathematics and Mathematical Physics</i> , 2008, 48, 2018-2058.	0.2	13
26	The numerical solution of forward and backward differential equations: Decomposition and related issues. <i>Journal of Computational and Applied Mathematics</i> , 2010, 234, 2745-2756.	1.1	13
27	Analysis of the Euler and trapezoidal discretization methods for the numerical solution of nonlinear functional Volterra integral equations of Urysohn type. <i>Journal of Computational and Applied Mathematics</i> , 2021, 398, 113628.	1.1	13
28	Analysis and numerical approximation of singular boundary value problems with the Laplacian in fluid mechanics. <i>Journal of Computational and Applied Mathematics</i> , 2014, 262, 87-104.	1.1	11
29	A program for deriving recoupling coefficients formulae. <i>Computer Physics Communications</i> , 1991, 66, 89-98.	3.0	10
30	Computational methods for a mathematical model of propagation of nerve impulses in myelinated axons. <i>Applied Numerical Mathematics</i> , 2014, 85, 38-53.	1.2	9
31	Analytical-numerical investigation of a singular boundary value problem for a generalized Emden-Fowler equation. <i>Journal of Computational and Applied Mathematics</i> , 2009, 229, 480-487.	1.1	8
32	Numerical solution of a singular boundary-value problem in non-Newtonian fluid mechanics. <i>Computer Physics Communications</i> , 2000, 126, 114-120.	3.0	7
33	Numerical solution of a singular boundary value problem for a generalized Emden-Fowler equation. <i>Applied Numerical Mathematics</i> , 2003, 45, 389-409.	1.2	7
34	Numerical solution of the neural field equation in the presence of random disturbance. <i>Journal of Computational and Applied Mathematics</i> , 2021, 387, 112563.	1.1	7
35	Iterative methods for a singular boundary-value problem. <i>Journal of Computational and Applied Mathematics</i> , 1999, 111, 173-186.	1.1	6
36	Numerical Modelling of a Functional Differential Equation with Deviating Arguments Using a Collocation Method. , 2008, , .		5

#	ARTICLE	IF	CITATIONS
37	Numerical solution of a class of singular free boundary problems involving the Δ -Laplace operator. Journal of Computational and Applied Mathematics, 2010, 234, 2838-2847.	1.1	5
38	Density profile equation with p-Laplacian: Analysis and numerical simulation. Applied Mathematics and Computation, 2013, 225, 550-561.	1.4	5
39	Numerical Solution of Variable-Order Fractional Differential Equations Using Bernoulli Polynomials. Fractal and Fractional, 2021, 5, 219.	1.6	5
40	Sequential method for fast neural population activity reconstruction in the cortex from incomplete noisy measurements. Computers in Biology and Medicine, 2022, 141, 105103.	3.9	5
41	Convergence acceleration for boundary value problems with singularities using the E-algorithm. Journal of Computational and Applied Mathematics, 1995, 61, 139-164.	1.1	4
42	Richardson extrapolation in boundary value problems for differential equations with nonregular right-hand side. Journal of Computational and Applied Mathematics, 1994, 50, 385-400.	1.1	3
43	Finite difference solution of a singular boundary value problem for the p-Laplace operator. Numerical Algorithms, 2010, 55, 337-348.	1.1	3
44	Efficient computational methods for singular free boundary problems using smoothing variable substitutions. Journal of Computational and Applied Mathematics, 2012, 236, 2981-2989.	1.1	3
45	Numerical solution of the stochastic neural field equation with applications to working memory. Physica A: Statistical Mechanics and Its Applications, 2022, 596, 127166.	1.2	3
46	Existence and uniqueness of solutions to weakly singular integral-algebraic and integro-differential equations. Open Mathematics, 2014, 12, 308-321.	0.5	2
47	Numerical investigation of noise induced changes to the solution behaviour of the discrete FitzHugh-Nagumo equation. Applied Mathematics and Computation, 2017, 293, 448-460.	1.4	2
48	Numerical solution of integro-differential equations arising from singular boundary value problems. Applied Mathematics and Computation, 2018, 336, 1-15.	1.4	2
49	Numerical simulations of one- and two-dimensional stochastic neural field equations with delay. Journal of Computational Neuroscience, 2022, 50, 299-311.	0.6	2
50	A new program for calculating matrix elements in atomic structure. Computer Physics Communications, 1991, 66, 99-114.	3.0	1
51	Numerical modelling of qualitative behaviour of solutions to convolution integral equations. Journal of Computational and Applied Mathematics, 2007, 205, 849-858.	1.1	1
52	A novel computational approach to singular free boundary problems in ordinary differential equations. Applied Numerical Mathematics, 2017, 114, 97-107.	1.2	1
53	Planar Dielectric Layered Media: Guided Localized Electromagnetic Structures and Optical Switches. AIP Conference Proceedings, 2007, , .	0.3	0
54	Numerical Approximation of a Nonlinear Boundary Value Problem for a Mixed Type Functional Differential Equation Arising in Nerve Conduction. , 2009, , .		0

#	ARTICLE	IF	CITATIONS
55	Symposium on Numerical Approximation and Extrapolation Methods for Ordinary Differential and Volterra Integral Equations. , 2010, , .		0
56	Root finding by high order iterative methods based on quadratures. Applied Mathematics and Computation, 2015, 264, 466-482.	1.4	0