

Juan JosÃ© Benito

List of Publications by Year in descending order

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Version: 2024-02-01

41
papers

1,273
citations

471061

17
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360668

35
g-index

41
all docs

41
docs citations

41
times ranked

347
citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of several factors in the generalized finite difference method. Applied Mathematical Modelling, 2001, 25, 1039-1053.	2.2	217
2	Solving parabolic and hyperbolic equations by the generalized finite difference method. Journal of Computational and Applied Mathematics, 2007, 209, 208-233.	1.1	129
3	Improvements of generalized finite difference method and comparison with other meshless method. Applied Mathematical Modelling, 2003, 27, 831-847.	2.2	123
4	An h-adaptive method in the generalized finite differences. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 735-759.	3.4	91
5	Solving second order non-linear elliptic partial differential equations using generalized finite difference method. Journal of Computational and Applied Mathematics, 2017, 318, 378-387.	1.1	91
6	Application of the generalized finite difference method to solve the advection-diffusion equation. Journal of Computational and Applied Mathematics, 2011, 235, 1849-1855.	1.1	84
7	The direct boundary element method: 2D site effects assessment on laterally varying layered media (methodology). Soil Dynamics and Earthquake Engineering, 2004, 24, 167-180.	1.9	54
8	Generalized finite differences for solving 3D elliptic and parabolic equations. Applied Mathematical Modelling, 2016, 40, 955-965.	2.2	46
9	Solving second order non-linear parabolic PDEs using generalized finite difference method (GFDM). Journal of Computational and Applied Mathematics, 2019, 354, 221-241.	1.1	42
10	A note on the dynamic analysis using the generalized finite difference method. Journal of Computational and Applied Mathematics, 2013, 252, 132-147.	1.1	41
11	A note on the application of the generalized finite difference method to seismic wave propagation in 2D. Journal of Computational and Applied Mathematics, 2012, 236, 3016-3025.	1.1	37
12	Implementations with generalized finite differences of the displacements and velocity-stress formulations of seismic wave propagation problem. Applied Mathematical Modelling, 2017, 52, 1-14.	2.2	29
13	Solving the telegraph equation in 2-D and 3-D using generalized finite difference method (GFDM). Engineering Analysis With Boundary Elements, 2020, 112, 13-24.	2.0	29
14	A GFDM with PML for seismic wave equations in heterogeneous media. Journal of Computational and Applied Mathematics, 2013, 252, 40-51.	1.1	27
15	Stability of perfectly matched layer regions in generalized finite difference method for wave problems. Journal of Computational and Applied Mathematics, 2017, 312, 231-239.	1.1	27
16	On the numerical solution to a parabolic-elliptic system with chemotactic and periodic terms using Generalized Finite Differences. Engineering Analysis With Boundary Elements, 2020, 113, 181-190.	2.0	23
17	The use of direct boundary element method for gaining insight into complex seismic site response. Computers and Structures, 2005, 83, 821-835.	2.4	20
18	Wave propagation in soils problems using the Generalized Finite Difference Method. Soil Dynamics and Earthquake Engineering, 2015, 79, 190-198.	1.9	15

#	ARTICLE	IF	CITATIONS
19	Solving a chemotaxis-haptotaxis system in 2D using Generalized Finite Difference Method. Computers and Mathematics With Applications, 2020, 80, 762-777.	1.4	15
20	An Approach to Refinement of Irregular Clouds of Points Using Generalized Finite Differences. Mathematical Problems in Engineering, 2015, 2015, 1-9.	0.6	13
21	Solving second order non-linear hyperbolic PDEs using generalized finite difference method (GFDM). Journal of Computational and Applied Mathematics, 2020, 363, 1-21.	1.1	13
22	A posteriori error estimator and indicator in generalized finite differences. Application to improve the approximated solution of elliptic PDEs. International Journal of Computer Mathematics, 2008, 85, 359-370.	1.0	12
23	Non-linear Fokker-Planck equation solved with generalized finite differences in 2D and 3D. Applied Mathematics and Computation, 2020, 368, 124801.	1.4	11
24	Adaptive strategies to improve the application of the generalized finite differences method in 2D and 3D. Mathematical Methods in the Applied Sciences, 2018, 41, 7115-7129.	1.2	9
25	An effective numeric method for different formulations of the elastic wave propagation problem in isotropic medium.. Applied Mathematical Modelling, 2021, 96, 480-496.	2.2	9
26	Solving a fully parabolic chemotaxis system with periodic asymptotic behavior using Generalized Finite Difference Method. Applied Numerical Mathematics, 2020, 157, 356-371.	1.2	8
27	A new meshless approach to deal with interfaces in seismic problems. Applied Mathematical Modelling, 2018, 58, 447-458.	2.2	7
28	Application of generalised finite differences method to reflection and transmission problems in seismic SH waves propagation. Mathematical Methods in the Applied Sciences, 2018, 41, 2328-2339.	1.2	6
29	Solving Elliptical Equations in 3D by Means of an Adaptive Refinement in Generalized Finite Differences. Mathematical Problems in Engineering, 2018, 2018, 1-14.	0.6	6
30	Schemes in generalized finite differences for seismic wave propagation in Kelvin-Voigt viscoelastic media. Engineering Analysis With Boundary Elements, 2018, 95, 25-32.	2.0	6
31	Solving Monge-Ampère equation in 2D and 3D by Generalized Finite Difference Method. Engineering Analysis With Boundary Elements, 2021, 124, 52-63.	2.0	6
32	Convergence and numerical simulations of prey-predator interactions via a meshless method. Applied Numerical Mathematics, 2021, 161, 333-347.	1.2	5
33	A Novel Spatio-Temporal Fully Meshless Method for Parabolic PDEs. Mathematics, 2022, 10, 1870.	1.1	5
34	Modelling of the advection-diffusion equation with a meshless method without numerical diffusion. International Journal of Computer Mathematics, 2012, 89, 377-389.	1.0	4
35	Implementation in CHIMERE of a conservative solver for the advection equation. Journal of Computational and Applied Mathematics, 2012, 236, 3026-3033.	1.1	4
36	Solving a reaction-diffusion system with chemotaxis and non-local terms using Generalized Finite Difference Method. Study of the convergence. Journal of Computational and Applied Mathematics, 2021, 389, 113325.	1.1	4

#	ARTICLE	IF	CITATIONS
37	Pseudo-spectral/finite-difference adaptive method for spherical shallow-water equations. International Journal of Computer Mathematics, 2008, 85, 461-473.	1.0	2
38	An adaptive solver for the spherical shallow water equations. Mathematics and Computers in Simulation, 2009, 79, 3466-3477.	2.4	1
39	A finite volumeâ€“finite difference method with a stiff ordinary differential equation solver for advectionâ€“diffusionâ€“reaction equation. International Journal of Computer Mathematics, 2015, 92, 1946-1955.	1.0	1
40	Seismic Wave Propagation and Perfectly Matched Layers Using a GFDM.. Lecture Notes in Computer Science, 2011, , 676-691.	1.0	1
41	Application of the GFDM for Dynamic Analysis of Plates. Lecture Notes in Computer Science, 2011, , 677-689.	1.0	0