

# Juan JosÃ© Benito

## List of Publications by Year in descending order

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41  
papers

1,273  
citations

471371

17  
h-index

360920

35  
g-index

41  
all docs

41  
docs citations

41  
times ranked

347  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Novel Spatio-Temporal Fully Meshless Method for Parabolic PDEs. Mathematics, 2022, 10, 1870.	1.1	5
2	Convergence and numerical simulations of prey-predator interactions via a meshless method. Applied Numerical Mathematics, 2021, 161, 333-347.	1.2	5
3	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
4	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
5	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
6	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
7	Non-linear Fokker-Planck equation solved with generalized finite differences in 2D and 3D. Applied Mathematics and Computation, 2020, 368, 124801.	1.4	11
8	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
9	Solving a chemotaxis-haptotaxis system in 2D using Generalized Finite Difference Method. Computers and Mathematics With Applications, 2020, 80, 762-777.	1.4	15
10	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
11	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
12	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
13	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
14	A new meshless approach to deal with interfaces in seismic problems. Applied Mathematical Modelling, 2018, 58, 447-458.	2.2	7
15	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
16	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
17	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
18	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

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19	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
20	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
21	Generalized finite differences for solving 3D elliptic and parabolic equations. Applied Mathematical Modelling, 2016, 40, 955-965.	2.2	46
22	An Approach to Refinement of Irregular Clouds of Points Using Generalized Finite Differences. Mathematical Problems in Engineering, 2015, 2015, 1-9.	0.6	13
23	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
24	Wave propagation in soils problems using the Generalized Finite Difference Method. Soil Dynamics and Earthquake Engineering, 2015, 79, 190-198.	1.9	15
25	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
26	A GFDM with PML for seismic wave equations in heterogeneous media. Journal of Computational and Applied Mathematics, 2013, 252, 40-51.	1.1	27
27	Modelling of the advectionâ€“diffusion equation with a meshless method without numerical diffusion. International Journal of Computer Mathematics, 2012, 89, 377-389.	1.0	4
28	Implementation in CHIMERE of a conservative solver for the advection equationâ€“cmmse10. Journal of Computational and Applied Mathematics, 2012, 236, 3026-3033.	1.1	4
29	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
30	Application of the GFDM for Dynamic Analysis of Plates. Lecture Notes in Computer Science, 2011, , 677-689.	1.0	0
31	Application of the generalized finite difference method to solve the advectionâ€“diffusion equation. Journal of Computational and Applied Mathematics, 2011, 235, 1849-1855.	1.1	84
32	Seismic Wave Propagation and Perfectly Matched Layers Using a GFDM.. Lecture Notes in Computer Science, 2011, , 676-691.	1.0	1
33	An adaptive solver for the spherical shallow water equations. Mathematics and Computers in Simulation, 2009, 79, 3466-3477.	2.4	1
34	Pseudo-spectral/finite-difference adaptive method for spherical shallow-water equations. International Journal of Computer Mathematics, 2008, 85, 461-473.	1.0	2
35	<i>a posteriori</i> 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
36	Solving parabolic and hyperbolic equations by the generalized finite difference method. Journal of Computational and Applied Mathematics, 2007, 209, 208-233.	1.1	129

#	ARTICLE	IF	CITATIONS
37	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
38	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
39	An h-adaptive method in the generalized finite differences. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 735-759.	3.4	91
40	Improvements of generalized finite difference method and comparison with other meshless method. Applied Mathematical Modelling, 2003, 27, 831-847.	2.2	123
41	Influence of several factors in the generalized finite difference method. Applied Mathematical Modelling, 2001, 25, 1039-1053.	2.2	217