Josep de la Puente

List of Publications by Year
in descending order

56 papers	1,314 citations	430754 18 h-index	345118 36 g-index
65 all docs	65 docs citations	65 times ranked	866 citing authors

#	Article	IF	Citations
1	Comparative analysis of a new assessment of the seismic risk of residential buildings of two districts of Barcelona. Natural Hazards, 2022, 110, 1649-1691.	1.6	2
2	3D magnetotelluric modeling using high-order tetrahedral Nédélec elements on massively parallel computing platforms. Computers and Geosciences, 2022, 160, 105030.	2.0	14
3	HPC Geophysical Electromagnetics: A Synthetic VTI Model with Complex Bathymetry. Energies, 2022, 15, 1272.	1.6	5
4	Enabling dynamic and intelligent workflows for HPC, data analytics, and AI convergence. Future Generation Computer Systems, 2022, 134, 414-429.	4.9	17
5	Comparison of expansion-based explicit time-integration schemes for acoustic wave propagation. Geophysics, 2020, 85, T165-T178.	1.4	2
6	Synthetic seismicity distribution in Guerrero–Oaxaca subduction zone, Mexico, and its implications on the role of asperities in Gutenberg–Richter law. Geoscientific Model Development, 2020, 13, 6361-6381.	1.3	0
7	Evolution of the multifractal parameters along different steps of a seismic activity. The example of Canterbury 2000–2018 (New Zealand). AIP Advances, 2020, 10, 115109.	0.6	4
8	Parallel 3-D marine controlled-source electromagnetic modelling using high-order tetrahedral Nédélec elements. Geophysical Journal International, 2019, 219, 39-65.	1.0	29
9	A stochastic rupture earthquake code based on the fiber bundle model (TREMOL v0.1): application to Mexican subduction earthquakes. Geoscientific Model Development, 2019, 12, 1809-1831.	1.3	6
10	A nodal discontinuous Galerkin finite element method for the poroelastic wave equation. Computational Geosciences, 2019, 23, 595-615.	1.2	11
11	A probabilistic approach for seismic risk assessment based on vulnerability functions. Application to Barcelona. Bulletin of Earthquake Engineering, 2019, 17, 1863-1890.	2.3	17
12	A discrete representation of material heterogeneity for the finite-difference modelling of seismic wave propagation in a poroelastic medium. Geophysical Journal International, 2019, 216, 1072-1099.	1.0	30
13	Probabilistic Assessment of Seismic Risk of Dwelling Buildings of Barcelona. Implication for the City Resilience. Resilient Cities, 2019, , 229-265.	0.6	4
14	Analysis of the Key Features of the Seismic Actions Due to the three Main Earthquakes of 11th of May 2011 in Lorca, Spain. Computacion Y Sistemas, 2019, 23, .	0.2	0
15	Modeling active fault systems and seismic events by using a fiber bundle model – example case: the Northridge aftershock sequence. Solid Earth, 2019, 10, 1519-1540.	1.2	1
16	A Machine Learning Approach for Parameter Screening in Earthquake Simulation. , 2018, , .		5
17	PETGEM: A parallel code for 3D CSEM forward modeling using edge finite elements. Computers and Geosciences, 2018, 119, 123-136.	2.0	43
18	Sensitivity Analysis of Seismic Parameters in the Probabilistic Seismic Hazard Assessment (PSHA) for Barcelona Applying the New R-CRISIS. Computacion Y Sistemas, 2018, 22, .	0.2	3

#	Article	IF	Citations
19	Acceleration strategies for elastic full waveform inversion workflows in 2D and 3D. Computational Geosciences, 2017, 21, 31-45.	1.2	5
20	Development and Validation of Software CRISIS to Perform Probabilistic Seismic Hazard Assessment with Emphasis on the Recent CRISIS2015. Computacion Y Sistemas, 2017, 21, .	0.2	14
21	Three-Dimensional CSEM Modelling on Unstructured Tetrahedral Meshes Using Edge Finite Elements. Communications in Computer and Information Science, 2017, , 247-256.	0.4	0
22	Toward an automatic full-wave inversion: Synthetic study cases. The Leading Edge, 2016, 35, 1047-1052.	0.4	2
23	Improving edge finite element assembly for geophysical electromagnetic modelling on shared-memory architectures. , 2016, , .		0
24	Elastic Full Waveform Inversion (FWI) of Reflection Data with a Phase Misfit Function. Communications in Computer and Information Science, 2016, , 277-284.	0.4	0
25	Wavefield compression for adjoint methods in full-waveform inversion. Geophysics, 2016, 81, R385-R397.	1.4	48
26	Towards an efficient and reliable HPC software platform for 3d geophysical inversion. , 2016, , .		1
27	A Parallel Tool for Numerical Approximation of 3D Electromagnetic Surveys in Geophysics. Computacion Y Sistemas, 2016, 20, .	0.2	4
28	Edge-based parallel framework for the simulation of 3d CSEM surveys. , 2016, , .		1
29	Choice of regularization in adjoint tomography based on two-dimensional synthetic tests. Geophysical Journal International, 2015, 202, 787-799.	1.0	2
30	Parallel and numerical issues of the edge finite element method for 3D controlled-source electromagnetic surveys. , 2015, , .		1
31	Edge-based electric field formulation in 3D CSEM simulations: A parallel approach. , 2015, , .		3
32	3D Viscoelastic Anisotropic Seismic Modeling with High-Order Mimetic Finite Differences. Lecture Notes in Computational Science and Engineering, 2015, , 217-225.	0.1	1
33	Mimetic seismic wave modeling including topography on deformed staggered grids. Geophysics, 2014, 79, T125-T141.	1.4	85
34	Finite-difference staggered grids in GPUs for anisotropic elastic wave propagation simulation. Computers and Geosciences, 2014, 70, 181-189.	2.0	26
35	Algebraic multigrid preconditioning within parallel finite-element solvers for 3-D electromagnetic modelling problems in geophysics. Geophysical Journal International, 2014, 197, 1442-1458.	1.0	29
36	A parallel finite-element method for three-dimensional controlled-source electromagnetic forward modelling. Geophysical Journal International, 2013, 193, 678-693.	1.0	126

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37	3D seismic modelling with topography using mimetic finite differences. , 2013, , .		0
38	Efficient parallel solutions to 3D electromagnetic problems using potentials. , 2013, , .		0
39	Using power-model based preconditioners for 3D acoustic full waveform inversion. , 2013, , .		1
40	Generalized Elastic Staggered Grids on Multi-GPU Platforms. , 2012, , .		1
41	Three‐dimensional dynamic rupture simulation with a high‐order discontinuous Galerkin method on unstructured tetrahedral meshes. Journal of Geophysical Research, 2012, 117, .	3.3	95
42	Real time visualization of thermohaline finestructure using Seismic Offset Groups. Methods in Oceanography, 2012, 3-4, 1-13.	1.5	4
43	Application of acoustic full waveform inversion to retrieve high-resolution temperature and salinity profiles from synthetic seismic data. Journal of Geophysical Research, 2011, 116, .	3.3	18
44	Comparison of irregular cartesian finite difference methods for acoustic RTM. , 2011, , .		0
45	A parallel finite‐element method for 3‐D marine controlled‐source electromagnetic forward modeling. , 2011, , .		0
46	Rotational motions in homogeneous anisotropic elastic media. Geophysics, 2010, 75, D47-D56.	1.4	18
47	Study of Rotational Ground Motion in the Near-Field Region. Bulletin of the Seismological Society of America, 2009, 99, 1271-1286.	1.1	40
48	Dynamic rupture modeling on unstructured meshes using a discontinuous Galerkin method. Journal of Geophysical Research, 2009, 114, .	3.3	69
49	Observations and Modeling of Rotational Signals in the P Coda: Constraints on Crustal Scattering. Bulletin of the Seismological Society of America, 2009, 99, 1315-1332.	1.1	21
50	Quantitative accuracy analysis of the discontinuous Galerkin method for seismic wave propagation. Geophysical Journal International, 2008, 173, 990-999.	1.0	54
51	Discontinuous Galerkin methods for wave propagation in poroelastic media. Geophysics, 2008, 73, T77-T97.	1.4	112
52	Seismic wave field modelling using high performance computing. , 2008, , .		6
53	Digital library for computational seismology. Eos, 2007, 88, 559-559.	0.1	4
54	An arbitrary high-order Discontinuous Galerkin method for elastic waves on unstructured meshes - III. Viscoelastic attenuation. Geophysical Journal International, 2007, 168, 224-242.	1.0	142

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55	An arbitrary high-order discontinuous Galerkin method for elastic waves on unstructured meshes - IV. Anisotropy. Geophysical Journal International, 2007, 169, 1210-1228.	1.0	117
56	Arbitrary high-order finite volume schemes for seismic wave propagation on unstructured meshes in 2D and 3D. Geophysical Journal International, 2007, 171, 665-694.	1.0	70