JoÃ£o CatalÃ£o

List of Publications by Year
in descending order

98 papers	1,929 citations	236833 25 h-index	289141 40 g-index
102 all docs	102 docs citations	102 times ranked	1824 citing authors

#	Article	IF	Citations
1	On the inclusion of GPS precipitable water vapour in the nowcasting of rainfall. Natural Hazards and Earth System Sciences, 2015, 15, 2605-2616.	1.5	111
2	Building Extraction from High-Resolution Aerial Imagery Using a Generative Adversarial Network with Spatial and Channel Attention Mechanisms. Remote Sensing, 2019, 11, 917.	1.8	103
3	GPS and tectonic evidence for a diffuse plate boundary at the Azores Triple Junction. Earth and Planetary Science Letters, 2013, 381, 177-187.	1.8	86
4	Tsunami vulnerability assessment of Casablanca-Morocco using numerical modelling and GIS tools. Natural Hazards, 2010, 54, 75-95.	1.6	76
5	The contribution of PSInSAR interferometry to landslide hazard in weak rock-dominated areas. Landslides, 2015, 12, 703-719.	2.7	73
6	Merging GPS and Atmospherically Corrected InSAR Data to Map 3-D Terrain Displacement Velocity. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 2354-2360.	2.7	67
7	Crop Monitoring Based on SPOT-5 Take-5 and Sentinel-1A Data for the Estimation of Crop Water Requirements. Remote Sensing, 2016, 8, 525.	1.8	64
8	Experimental Study on the Atmospheric Delay Based on GPS, SAR Interferometry, and Numerical Weather Model Data. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 6-11.	2.7	58
9	Neural Network Approach to Forecast Hourly Intense Rainfall Using GNSS Precipitable Water Vapor and Meteorological Sensors. Remote Sensing, 2019, 11, 966.	1.8	57
10	On the Use of the WRF Model to Mitigate Tropospheric Phase Delay Effects in SAR Interferograms. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 4970-4976.	2.7	55
11	Large-scale active slump of the southeastern flank of Pico Island, Azores. Geology, 2012, 40, 939-942.	2.0	55
12	Morpho-structural evolution of a volcanic island developed inside an active oceanic rift: S. Miguel Island (Terceira Rift, Azores). Journal of Volcanology and Geothermal Research, 2015, 301, 90-106.	0.8	54
13	Assimilating InSAR Maps of Water Vapor to Improve Heavy Rainfall Forecasts: A Case Study With Two Successive Storms. Journal of Geophysical Research D: Atmospheres, 2018, 123, 3341-3355.	1.2	47
14	Bridging InSAR and GPS Tomography: A New Differential Geometrical Constraint. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 697-702.	2.7	40
15	Can spaceborne SAR interferometry be used to study the temporal evolution of PWV?. Atmospheric Research, 2013, 119, 70-80.	1.8	38
16	Sentinel-1 Interferometric SAR Mapping of Precipitable Water Vapor Over a Country-Spanning Area. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 2993-2999.	2.7	38
17	Impact of a 1755-like tsunami in Huelva, Spain. Natural Hazards and Earth System Sciences, 2010, 10, 139-148.	1.5	36
18	Uncertainty Assessment of the Estimated Atmospheric Delay Obtained by a Numerical Weather Model (NMW). IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 6710-6717.	2.7	35

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19	The 1998 Faial earthquake, Azores: Evidence for a transform fault associated with the Nubiaâ€“Eurasia plate boundary?. Tectonophysics, 2014, 633, 115-125.	0.9	34
20	Insar Maps of Land Subsidence and Sea Level Scenarios to Quantify the Flood Inundation Risk in Coastal Cities: The Case of Singapore. Remote Sensing, 2020, 12, 296.	1.8	34
21	Analysis of Galileo and GPS Integration for GNSS Tomography. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 1936-1943.	2.7	33
22	Three-Dimensional Variational Assimilation of InSAR PWV Using the WRFDA Model. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 7323-7330.	2.7	32
23	On The Estimation of Temporal Changes of Snow Water Equivalent by Spaceborne Sar Interferometry: A New Application for the Sentinel-1 Mission. Journal of Hydrology and Hydromechanics, 2019, 67, 93-100.	0.7	32
24	An ERA5-Based Hourly Global Pressure and Temperature (HGPT) Model. Remote Sensing, 2020, 12, 1098.	1.8	31
25	4D wet refractivity estimation in the atmosphere using GNSS tomography initialized by radiosonde and AIRS measurements: results from a 1-week intensive campaign. GPS Solutions, 2018, 22, 1.	2.2	30
26	Maps of PWV Temporal Changes by SAR Interferometry: A Study on the Properties of Atmosphere's Temperature Profiles. IEEE Geoscience and Remote Sensing Letters, 2014, 11, 2065-2069.	1.4	25
27	InSAR Meteorology: Highâ€Resolution Geodetic Data Can Increase Atmospheric Predictability. Geophysical Research Letters, 2019, 46, 2949-2955.	1.5	25
28	Coseismic displacements of the MW= 6.1, July 9, 1998, Faial earthquake (Azores, North Atlantic). Geophysical Research Letters, 2002, 29, 21-1-21-4.	1.5	23
29	Analysis of geometry of volcanoes and faults in Terceira Island (Azores): Evidence for reactivation tectonics at the EUR/AFR plate boundary in the Azores triple junction. Tectonophysics, 2009, 465, 98-113.	0.9	23
30	Ground motion and tectonics in the Terceira Island: Tectonomagmatic interactions in an oceanic rift (Terceira Rift, Azores Triple Junction). Tectonophysics, 2015, 651-652, 19-34.	0.9	23
31	Large-scale mass wasting on small volcanic islands revealed by the study of Flores Island (Azores). Scientific Reports, 2018, 8, 13898.	1.6	23
32	Deformation in a hyperslow oceanic rift: Insights from the tectonics of the SÃ£o Miguel Island (Terceira Rift, Azores). Tectonics, 2016, 35, 425-446.	1.3	22
33	Surface displacement field at Terceira island deduced from repeated GPS measurements. Journal of Volcanology and Geothermal Research, 2012, 217-218, 1-7.	0.8	19
34	Deformation associated with the Faial (Capelinhos) 1957â€“1958 eruption: Inferences from 1937â€“1997 geodetic measurements. Journal of Volcanology and Geothermal Research, 2006, 155, 151-163.	0.8	18
35	Mapping Precipitable Water Vapor Time Series From Sentinel-1 Interferometric SAR. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 1373-1379.	2.7	18
36	The Impacts of Climate Change on Irrigated Agriculture in Southern Portugal. Irrigation and Drainage, 2017, 66, 3-18.	0.8	17

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37	Constraints on the structure of Maio Island (Cape Verde) by a three-dimensional gravity model: imaging partially exhumed magma chambers. Geophysical Journal International, 2012, 190, 931-940.	1.0	16
38	Estimation of the Terceira Island (Azores) main strain rates from GPS data. Earth, Planets and Space, 2003, 55, 637-642.	0.9	15
39	Multitemporal Backscattering Logistic Analysis for Intertidal Bathymetry. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 1066-1073.	2.7	15
40	Assessment of two techniques to merge ground-based and TRMM rainfall measurements: a case study about Brazilian Amazon Rainforest. GIScience and Remote Sensing, 2016, 53, 689-706.	2.4	13
41	Continuous Multitrack Assimilation of Sentinelâ€1 Precipitable Water Vapor Maps for Numerical Weather Prediction: How Far Can We Go With Current InSAR Data?. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034171.	1.2	13
42	Iberia-Azores Gravity Model (IAGRM) using multi-source gravity data. Earth, Planets and Space, 2006, 58, 277-286.	0.9	12
43	Estudio experimental de tomografÃa GNSS en Lisboa (Portugal). FÃsica De La Tierra, 2014, 26, .	0.1	12
44	Assessing the Use of Sentinel-2 Time Series Data for Monitoring Cork Oak Decline in Portugal. Remote Sensing, 2019, 11, 2515.	1.8	12
45	Merging SAR interferometry and GPS tomography for high-resolution mapping of 3D tropospheric water vapour. , 2015, , .		11
46	Integration of InSAR Analysis and Numerical Modeling for the Assessment of Ground Subsidence in the City of Lisbon, Portugal. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 1663-1673.	2.3	11
47	Intertidal Bathymetry Extraction with Multispectral Images: A Logistic Regression Approach. Remote Sensing, 2020, 12, 1311.	1.8	11
48	InSAR time series analysis of the 9 July 1998 Azores earthquake. International Journal of Remote Sensing, 2005, 26, 2715-2729.	1.3	10
49	Evaluation of Cliff Retreat and Beach Nourishment in Southern Portugal Using Photogrammetric Techniques. Journal of Coastal Research, 2008, 4, 184-193.	0.1	10
50	Evaluation of HF Radar Wave Measurements in Iberian Peninsula by Comparison with Satellite Altimetry and in Situ Wave Buoy Observations. Remote Sensing, 2020, 12, 3623.	1.8	10
51	Inclusion of high resolution MODIS maps on a 3D tropospheric water vapor GPS tomography model. Proceedings of SPIE, 2015, , .	0.8	9
52	Evaluation of single-band snow-patch mapping using high-resolution microwave remote sensing: an application in the maritime Antarctic. Cryosphere, 2017, 11, 139-155.	1.5	9
53	UAV Derived Information Applied to the Study of Slow-changing Morphology in Dune Systems. Journal of Coastal Research, 2018, 85, 226-230.	0.1	9
54	Point Mass Method Applied to the Regional Gravimetric Determination of the Geoid. Studia Geophysica Et Geodaetica, 2003, 47, 495-509.	0.3	8

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55	Mapping the geoid for Iberia and the Macaronesian Islands using multi-sensor gravity data and the GRACE geopotential model. Journal of Geodynamics, 2009, 48, 6-15.	0.7	8
56	Sentinel-1 InSAR data applied to surface deformation in Macaronesia (Canaries and Cape Verde). Procedia Computer Science, 2018, 138, 382-387.	1.2	7
57	CROP DATA RETRIEVAL USING EARTH OBSERVATION DATA TO SUPPORT AGRICULTURAL WATER MANAGEMENT. Engenharia Agricola, 2019, 39, 380-390.	0.2	7
58	Soil Moisture Estimation Using Atmospherically Corrected C-Band InSAR Data. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-9.	2.7	7
59	Using Sentinel-2 Images to Estimate Topography, Tidal-Stage Lags and Exposure Periods over Large Intertidal Areas. Remote Sensing, 2021, 13, 320.	1.8	7
60	Metodologia para o traÃ§ado da Linha de MÃ¡xima Preia-Mar de Ãguas Vivas Equinociais em ambientes de transiÃ§Ã£o: aplicaÃ§Ã£o ao estuÃ¡rio do Tejo (Portugal). Journal of Integrated Coastal Zone Management, 2014, 14, 95-107.	0.2	7
61	The Influence of Different Methods of Interpolating Spatial Meteorological Data on Calculated Irrigation Requirements. Applied Engineering in Agriculture, 2011, 27, 979-989.	0.3	6
62	Analysis of the relation between GPS tropospheric delay and intense precipitation. Proceedings of SPIE, 2013, , .	0.8	6
63	Understanding the coastal variability at Norte beach, Portugal. Journal of Coastal Research, 2013, 165, 2173-2178.	0.1	5
64	The shaping of a volcanic ridge in a tectonically active setting: The Pico-Faial Ridge in the Azores Triple Junction. Geomorphology, 2021, 378, 107612.	1.1	5
65	Mapping Cork Oak Mortality Using Multitemporal High-Resolution Satellite Imagery. Remote Sensing, 2022, 14, 2750.	1.8	5
66	Inner and minimum constraint adjustment of marine gravity data. Computers and Geosciences, 2004, 30, 949-957.	2.0	4
67	Sensitivity analysis of the gravity geoid estimation: A case study on the Azores plateau. Physics of the Earth and Planetary Interiors, 2008, 168, 113-124.	0.7	4
68	Interpolating MERIS and GPS measurements of precipitable water vapour (PWV) to estimate atmospheric phase delay maps. Proceedings of SPIE, 2010, , .	0.8	4
69	Large-scale active slump of the southeastern flank of Pico Island, Azores: REPLY. Geology, 2013, 41, e302-e302.	2.0	4
70	Can Galileo increase the accuracy and spatial resolution of the 3D tropospheric water vapour reconstruction by GPS tomography?. , 2015, , .		4
71	The Contribution of Space-Geodetic Techniques to the Understanding of the Present-Day Geodynamics of the Azores Triple Junction. Active Volcanoes of the World, 2018, , 57-69.	1.0	4
72	Generation of Persistent Scatterers in Non-Urban Areas: The Role of Microwave Scattering Parameters. Geosciences (Switzerland), 2018, 8, 269.	1.0	4

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73	An operational Sentinel-2 based monitoring system for the management and control of direct aids to the farmers in the context of the Common Agricultural Policy (CAP): A case study in mainland Portugal. International Journal of Applied Earth Observation and Geoinformation, 2021, 103, 102469.	1.4	4
74	High resolution mapping of soil moisture in agriculture based on Sentinel-1 interferometric data. , 2018, , .		4
75	Comparison of precipitable water vapor (PWV) maps derived by GPS, SAR interferometry, and numerical forecasting models. , 2010, , .		3
76	Detection of ground subsidence in the city of Lisbon: Comparison of InSAR and topographic measurements. , 2011, , .		3
77	Using K-Means and morphological segmentation for intertidal flats recognition. , 2012, , .		3
78	Field Observations of Temporal Variations of Surface Soil Moisture: Comparison with Insar Sentinel-1 Data. , 2018, , .		3
79	Comparison of In-Field Measurements and INSAR Estimates of Soil Moisture: Inversion Strategies of Interferometric Data. , 2019, , .		3
80	Multitemporal crop classification with machine learning techniques. , 2019, , .		3
81	Mapping temporal evolution of water vapour in troposphere by interferometric SAR data. , 2010, , .		2
82	Mitigation of atmospheric phase delay in InSAR time series using ERA-interim model, GPS and MODIS data: Application to the permafrost deformation in Hurd Peninsula, Antarctica. , 2015, , .		2
83	Evaluation of rainfall forecasts combining GNSS precipitable water vapor with ground and remote sensing meteorological variables in a neural network approach. , 2018, , .		2
84	Using TerraSAR-X SAR interferometric data to derive maps of the atmospheric phase delay. , 2012, , .		1
85	A synergistic approach using optical and SAR data to estimate crop's irrigation requirements. , 2016, , .		1
86	Assimilation of Insar Propagation Delay Maps in High-Resolution Numerical Weather Model: Imaging of Water Vapor Structures in Atmosphere. , 2018, , .		1
87	Observing Soil Moisture Change Using C-Band Interferometry using Machine Learning Regression. , 2021, , .		1
88	Temporal analysis of Sentinel-1 coherence images. , 2019, , .		1
89	Focusing of bistatic SAR data. , 2014, , .		0
90	Assimilation of Insar-Derived PWV Maps Exhibit Potential for Atmosphere Convective Storm Characterization. , 2018, , .		0

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91	Exploitation of Sentinel-2 Time Series for Horticulture Crops Inventory. , 2018, , .		0
92	3D Wet Refractivity Monitoring Using Gnss Tomography Technique Constrained with Airs Data. , 2018, , .		0
93	InSAR Remote Sensing of Atmosphere: Bridging High Resolution Data and NWP Models. , 2019, , .		0
94	Using the Rotationally Invariant Spectrum to Study the Impact of Assimilating Insar Products in an NWP Model. , 2021, , .		0
95	Analysis of Agricultural Scenes based on SAR Interferometry. , 2015, , .		0
96	NavegaÃ§Ã£o indoor baseada na rede WiFi como suporte a serviÃ§os baseados na localizaÃ§Ã£o: estudo de caso no Campus da UL. , 0, , 377-389.		0
97	GeneralizaÃ§Ã£o cartogrÃ¡fica de linhas recorrendo a tÃ©cnicas de inteligÃªncia artificial. , 0, , 669-682.		0
98	Fish Communities in the Lower Tagus Inland Wetlands: From Anthropogenic Pressures to Conservation Management. , 0, , .		0