Jose Fernandez

List of Publications by Year in descending order

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139 papers 2,909 citations

147801 31 h-index 214800 47 g-index

149 all docs 149 docs citations

times ranked

149

2454 citing authors

#	Article	IF	Citations
1	Estimation of the Block Adjustment Error in UAV Photogrammetric Flights in Flat Areas. Remote Sensing, 2022, 14, 2877.	4.0	2
2	Radar Interferometry as a Monitoring Tool for an Active Mining Area Using Sentinel-1 C-Band Data, Case Study of Riotinto Mine. Remote Sensing, 2022, 14, 3061.	4.0	3
3	Detection of volcanic unrest onset in La Palma, Canary Islands, evolution and implications. Scientific Reports, 2021, 11, 2540.	3.3	31
4	Tidal Influence on Seismic Activity During the 2011–2013 El Hierro Volcanic Unrest. Tectonics, 2021, 40, e2020TC006201.	2.8	7
5	Upgraded software for structural gravity inversion and application to El Hierro (Canary Islands). Computers and Geosciences, 2021, 150, 104720.	4.2	9
6	On the Construction of Bootstrap Confidence Intervals for Estimating the Correlation Between Two Time Series Not Sampled on Identical Time Points. Mathematical Geosciences, 2021, 53, 1813.	2.4	1
7	A free-geometry geodynamic modelling of surface gravity changes using Growth-dg software. Scientific Reports, 2021, 11, 23442.	3 . 3	5
8	Interseismic Strain Accumulation Near Lisbon (Portugal) From Space Geodesy. Geophysical Research Letters, 2021, 48, .	4.0	2
9	3D multi-source model of elastic volcanic ground deformation. Earth and Planetary Science Letters, 2020, 547, 116445.	4.4	12
10	Geodetic Study of the 2006–2010 Ground Deformation in La Palma (Canary Islands): Observational Results. Remote Sensing, 2020, 12, 2566.	4.0	7
11	Geodetic Deformation versus Seismic Crustal Moment-Rates: Insights from the Ibero-Maghrebian Region. Remote Sensing, 2020, 12, 952.	4.0	20
12	Deep volcanic morphology below Lanzarote, Canaries, from gravity inversion: New results for Timanfaya and implications. Journal of Volcanology and Geothermal Research, 2019, 369, 64-79.	2.1	8
13	Moho depth determination beneath theÂZagros Mountains from 3D inversion of gravity data. Arabian Journal of Geosciences, 2018, 11, 1.	1.3	4
14	Site scale modeling of slow-moving landslides, a 3D viscoplastic finite element modeling approach. Landslides, 2018, 15, 257-272.	5.4	18
15	Suitability Assessment of X-Band Satellite SAR Data for Geotechnical Monitoring of Site Scale Slow Moving Landslides. Remote Sensing, 2018, 10, 936.	4.0	10
16	Modeling the two- and three-dimensional displacement field in Lorca, Spain, subsidence and the global implications. Scientific Reports, 2018, 8, 14782.	3. 3	42
17	PAF: A software tool to estimate free-geometry extended bodies of anomalous pressure from surface deformation data. Computers and Geosciences, 2018, 111, 235-243.	4.2	4
18	Principal component analysis of MSBAS DInSAR time series from Campi Flegrei, Italy. Journal of Volcanology and Geothermal Research, 2017, 344, 139-153.	2.1	12

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19	An improved data integration algorithm to constrain the 3D displacement field induced by fast deformation phenomena tested on the Napa Valley earthquake. Computers and Geosciences, 2017, 109, 206-215.	4.2	8
20	Volcano Geodesy: Recent developments and future challenges. Journal of Volcanology and Geothermal Research, 2017, 344, 1-12.	2.1	61
21	Mapping Vulnerable Urban Areas Affected by Slow-Moving Landslides Using Sentinel-1 InSAR Data. Remote Sensing, 2017, 9, 876.	4.0	76
22	A-DInSAR Monitoring of Landslide and Subsidence Activity: A Case of Urban Damage in Arcos de la Frontera, Spain. Remote Sensing, 2017, 9, 787.	4.0	24
23	Joint Terrestrial and Aerial Measurements to Study Ground Deformation: Application to the Sciara Del Fuoco at the Stromboli Volcano (Sicily). Remote Sensing, 2016, 8, 463.	4.0	8
24	3D displacement field retrieved by integrating Sentinel-1 InSAR and GPS data: the 2014 South Napa earthquake. European Journal of Remote Sensing, 2016, 49, 1-13.	3.5	27
25	Introduction to Mathematics and Geosciences: Global and Local Perspectives, Volume II. Pure and Applied Geophysics, 2016, 173, 731-737.	1.9	0
26	Real Time Tracking of Magmatic Intrusions by means of Ground Deformation Modeling during Volcanic Crises. Scientific Reports, 2015, 5, 10970.	3.3	36
27	3D Stability Analysis of the Portalet Landslide Using Finite Element Method. , 2015, , 1519-1524.		3
28	An Overview of Geodetic Volcano Research in the Canary Islands. Pure and Applied Geophysics, 2015, 172, 3189-3228.	1.9	12
29	Structure of Alluvial Valleys from 3-D Gravity Inversion: The Low Andarax Valley (AlmerÃa, Spain) Test Case. Pure and Applied Geophysics, 2015, 172, 3107-3121.	1.9	1
30	Introduction to Mathematics and Geosciences: Global and Local Perspectives, Volume I. Pure and Applied Geophysics, 2015, 172, 1-5.	1.9	8
31	Twenty-year advanced DInSAR analysis of severe land subsidence: The Alto GuadalentÃn Basin (Spain) case study. Engineering Geology, 2015, 198, 40-52.	6.3	67
32	The Diffuse Plate boundary of Nubia and Iberia in the Western Mediterranean: Crustal deformation evidence for viscous coupling and fragmented lithosphere. Earth and Planetary Science Letters, 2015, 430, 439-447.	4.4	77
33	The Canary Islands hot spot: New insights from 3D coupled geophysical–petrological modelling of the lithosphere and uppermost mantle. Earth and Planetary Science Letters, 2015, 409, 71-88.	4.4	37
34	Detailed multidisciplinary monitoring reveals pre- and co-eruptive signals at Nyamulagira volcano (North Kivu, Democratic Republic of Congo). Bulletin of Volcanology, 2014, 76, 1.	3.0	31
35	Radar interferometry techniques for the study of ground subsidence phenomena: a review of practical issues through cases in Spain. Environmental Earth Sciences, 2014, 71, 163-181.	2.7	135
36	Spatiotemporal analysis and interpretation of 1993–2013 ground deformation at Campi Flegrei, Italy, observed by advanced DInSAR. Geophysical Research Letters, 2014, 41, 6101-6108.	4.0	37

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37	Removal of systematic seasonal atmospheric signal from interferometric synthetic aperture radar ground deformation time series. Geophysical Research Letters, 2014, 41, 6123-6130.	4.0	36
38	An Update GPS Velocity and Strain Rate Fields for the Iberian Region. Lecture Notes in Earth System Sciences, 2014, , 369-372.	0.6	2
39	Spatiotemporal Analysis of Ground Deformation at Campi Flegrei and Mt Vesuvius, Italy, Observed by Envisat and Radarsat-2 InSAR During 2003–2013. Lecture Notes in Earth System Sciences, 2014, , 377-382.	0.6	3
40	Magma storage and migration associated with the 2011–2012 El Hierro eruption: Implications for crustal magmatic systems at oceanic island volcanoes. Journal of Geophysical Research: Solid Earth, 2013, 118, 4361-4377.	3.4	83
41	Strain and stress fields along the Gibraltar Orogenic Arc: Constraints on active geodynamics. Gondwana Research, 2013, 23, 1071-1088.	6.0	51
42	Determinación geodésica del deslizamiento de falla para el terremoto de Lorca del 11 de Mayo de 2011 usando interferometrÃa radar y GPS. FÃsica De La Tierra, 2013, 24, .	0.1	0
43	Expanding maps, shrinking targets and hitting times. Nonlinearity, 2012, 25, 2443-2471.	1.4	11
44	The 2011 Lorca earthquake slip distribution controlled by groundwater crustal unloading. Nature Geoscience, 2012, 5, 821-825.	12.9	123
45	Using a Mesoscale Meteorological Model to Reduce the Effect of Tropospheric Water Vapour from DInSAR Data: A Case Study for the Island of Tenerife, Canary Islands. Pure and Applied Geophysics, 2012, 169, 1425-1441.	1.9	13
46	An Elliptical Model for Deformation Due to Groundwater Fluctuations. Pure and Applied Geophysics, 2012, 169, 1443-1456.	1.9	4
47	Deformation and Gravity Change: Indicators of Isostasy, Tectonics, Volcanism and Climate Change, Volume III. Introduction. Pure and Applied Geophysics, 2012, 169, 1329-1330.	1.9	1
48	A new gravity inversion method for multiple subhorizontal discontinuity interfaces and shallow basins. Journal of Geophysical Research, 2011, 116, .	3.3	25
49	Simultaneous inversion of surface deformation and gravity changes by means of extended bodies with a free geometry: Application to deforming calderas. Journal of Geophysical Research, 2011, 116, .	3.3	28
50	Error estimation in multitemporal InSAR deformation time series, with application to Lanzarote, Canary Islands. Journal of Geophysical Research, $2011, 116, \ldots$	3.3	56
51	Drought-driven transient aquifer compaction imaged using multitemporal satellite radar interferometry. Geology, 2011, 39, 551-554.	4.4	47
52	Source parameters of the 2008 Bukavu-Cyangugu earthquake estimated from InSAR and teleseismic data. Geophysical Journal International, 2011, 184, 934-948.	2.4	29
53	Ground deformation in the Taupo Volcanic Zone, New Zealand, observed by ALOS PALSAR interferometry. Geophysical Journal International, 2011, 187, 147-160.	2.4	32
54	The 3-D gravity inversion package GROWTH2.0 and its application to Tenerife Island, Spain. Computers and Geosciences, 2011, 37, 621-633.	4.2	39

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55	3D analytical and numerical modelling of the regional topography influence on the surface deformation due to underground heat source. Contributions To Geophysics and Geodesy, 2011, 41, 251-265.	0.6	1
56	Space- and Time-Dependent Probabilities for Earthquake Fault Systems from Numerical Simulations: Feasibility Study and First Results. Pure and Applied Geophysics, 2010, 167, 967-977.	1.9	7
57	Coseismic Horizontal Offsets and Fault-Trace Mapping Using Phase Correlation of IRS Satellite Images: The 1999 Izmit (Turkey) Earthquake. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 2242-2250.	6.3	16
58	Optical satellite images for co-seismic horizontal offsets estimate and fault trace mapping using Phase-corr technique. , 2010, , .		0
59	Longâ€term versus shortâ€term deformation processes at Tenerife (Canary Islands). Journal of Geophysical Research, 2010, 115, .	3.3	11
60	Shallow flank deformation at Cumbre Vieja volcano (Canary Islands): Implications on the stability of steep-sided volcano flanks at oceanic islands. Earth and Planetary Science Letters, 2010, 297, 545-557.	4.4	51
61	Characterization of the distribution of water vapour for DInSAR studies on the volcanic island of Tenerife, Canary Islands., 2009,,.		1
62	Coseismic Three-Dimensional Displacements Determined Using SAR Data: Theory and an Application Test. Pure and Applied Geophysics, 2009, 166, 1403-1424.	1.9	13
63	GPS Monitoring of the Tropical Storm Delta along the Canary Islands Track, November 28-29, 2005. Pure and Applied Geophysics, 2009, 166, 1519-1531.	1.9	13
64	Geodetic and Structural Research in La Palma, Canary Islands, Spain: 1992–2007 Results. Pure and Applied Geophysics, 2009, 166, 1461-1484.	1.9	15
65	Deformation and Gravity Change: Indicators of Isostasy, Tectonics, Volcanism and Climate Change, Volume II. Introduction. Pure and Applied Geophysics, 2009, 166, 1165-1166.	1.9	1
66	Spatiotemporal gravity changes on volcanoes: Assessing the importance of topography. Geophysical Research Letters, 2009, 36, .	4.0	10
67	Gravityâ€driven deformation of Tenerife measured by InSAR time series analysis. Geophysical Research Letters, 2009, 36, .	4.0	47
68	Structural results for La Palma island using 3â€D gravity inversion. Journal of Geophysical Research, 2009, 114, .	3.3	33
69	Geodetic and Structural Research in La Palma, Canary Islands, Spain: 1992–2007 Results. , 2009, , 1461-1484.		1
70	Coseismic Three-Dimensional Displacements Determined Using SAR Data: Theory and an Application Test., 2009,, 1403-1424.		0
71	On the Mathematical Analysis of an Elastic-gravitational Layered Earth Model for Magmatic Intrusion: The Stationary Case. Pure and Applied Geophysics, 2008, 165, 1465-1490.	1.9	2
72	Time Evolution of Deformation Using Time Series of Differential Interferograms: Application to La Palma Island (Canary Islands). Pure and Applied Geophysics, 2008, 165, 1531-1554.	1.9	15

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73	Introduction: Linking Earth Sciences and Mathematics. Pure and Applied Geophysics, 2008, 165, 997-1001.	1.9	1
74	An Upper Limit to Ground Deformation in the Island of Tenerife, Canary Islands, for the Period 1997–2006. Pure and Applied Geophysics, 2008, 165, 1049-1070.	1.9	10
75	Postseismic Deformation Following the 1994 Northridge Earthquake Identified Using the Localized Hartley Transform Filter. Pure and Applied Geophysics, 2008, 165, 1577-1602.	1.9	3
76	Introduction to Earth Sciences and Mathematics, Volume II. Pure and Applied Geophysics, 2008, 165, 1459-1463.	1.9	1
77	A gravity gradient method for characterizing the post-seismic deformation field for a finite fault. Geophysical Journal International, 2008, 173, 802-805.	2.4	6
78	A general method for calculating co-seismic gravity changes in complex fault systems. Computers and Geosciences, 2008, 34, 1541-1549.	4.2	0
79	4D volcano gravimetry. Geophysics, 2008, 73, WA3-WA18.	2.6	119
80	On the interpretation of gravity tide residuals in the Iberian Peninsula. Journal of Geodynamics, 2008, 45, 18-31.	1.6	3
81	Shallow structure beneath the Central Volcanic Complex of Tenerife from new gravity data: Implications for its evolution and recent reactivation. Physics of the Earth and Planetary Interiors, 2008, 168, 212-230.	1.9	89
82	DInSAR, GPS and gravity observation results in La Palma, Canary islands. , 2008, , .		2
83	Systematic InSAR monitoring of African active volcanic zones: What we have learned in three years, or an harvest beyond our expectations. , 2008, , .		10
84	Surface deformation studies of Tenerife Island, Spain from joint GPS-DInSAR observations. , 2008, , .		1
85	An Upper Limit to Ground Deformation in the Island of Tenerife, Canary Islands, for the Period 1997–2006. , 2008, , 1049-1070.		1
86	On the Mathematical Analysis of an Elastic-gravitational Layered Earth Model for Magmatic Intrusion: The Stationary Case., 2008, , 1465-1490.		0
87	Postseismic Deformation Following the 1994 Northridge Earthquake Identified Using the Localized Hartley Transform Filter. , 2008, , 1577-1602.		0
88	Topography and self-gravitation interaction in elastic-gravitational modeling. Geochemistry, Geophysics, Geosystems, 2007, 8, n/a-n/a.	2.5	8
89	Threeâ€dimensional indirect boundary element method for deformation and gravity changes in volcanic areas: Application to Teide volcano (Tenerife, Canary Islands). Journal of Geophysical Research, 2007, 112, .	3.3	11
90	Some Insights into Topographic, Elastic and Self-gravitation Interaction in Modelling Ground Deformation and Gravity Changes in Active Volcanic Areas. Pure and Applied Geophysics, 2007, 164, 865-878.	1.9	11

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91	A Hybrid Model for the Summit Region of Merapi Volcano, Java, Indonesia, Derived from Gravity Changes and Deformation Measured between 2000 and 2002. Pure and Applied Geophysics, 2007, 164, 837-850.	1.9	1
92	Shear-wave Velocity Structure around Teide Volcano: Results Using Microtremors with the SPAC Method and Implications for Interpretation of Geodetic Results. Pure and Applied Geophysics, 2007, 164, 697-720.	1.9	9
93	Interpretation of 1992–1994 Gravity Changes around Mayon Volcano, Philippines, Using Point Sources. Pure and Applied Geophysics, 2007, 164, 733-749.	1.9	11
94	Modeling of Stress Changes at Mayon Volcano, Philippines. Pure and Applied Geophysics, 2007, 164, 819-835.	1.9	0
95	Deformation and Gravity Change: Indicators of Isostasy, Tectonics, Volcanism and Climate Change. Introduction. Pure and Applied Geophysics, 2007, 164, 633-635.	1.9	1
96	Shear-wave Velocity Structure around Teide Volcano: Results Using Microtremors with the SPAC Method and Implications for Interpretation of Geodetic Results., 2007,, 697-720.		0
97	Modeling of Stress Changes at Mayon Volcano, Philippines. , 2007, , 819-835.		0
98	Interpretation of 1992–1994 Gravity Changes around Mayon Volcano, Philippines, Using Point Sources. , 2007, , 733-749.		0
99	On the relative importance of self-gravitation and elasticity in modeling volcanic ground deformation and gravity changes. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	15
100	Gravity changes from a stress evolution earthquake simulation of California. Journal of Geophysical Research, 2006, 111 , .	3.3	16
101	New evidence for the reawakening of Teide volcano. Geophysical Research Letters, 2006, 33, .	4.0	55
102	Spatiotemporal variations in vertical gravity gradients at the Campi Flegrei caldera (Italy): a case for source multiplicity during unrest?. Geophysical Journal International, 2006, 167, 1089-1096.	2.4	35
103	A revision of the FORTRAN codes GRAVW to compute deformation produced by a point magma intrusion in elastic-gravitational layered earth models. Computers and Geosciences, 2006, 32, 275-281.	4.2	9
104	On the interpretation of vertical gravity gradients produced by magmatic intrusions. Journal of Geodynamics, 2005, 39, 475-492.	1.6	16
105	Modeling the density at Merapi volcano area, Indonesia, via the inverse gravimetric problem. Geochemistry, Geophysics, Geosystems, 2005, 6, n/a-n/a.	2.5	34
106	Deeper understanding of non-linear geodetic data inversion using a quantitative sensitivity analysis. Nonlinear Processes in Geophysics, 2005, 12, 373-379.	1.3	8
107	Detection of displacements on Tenerife Island, Canaries, using radar interferometry. Geophysical Journal International, 2004, 160, 33-45.	2.4	38
108	Volcanic source inversion using a genetic algorithm and an elastic-gravitational layered earth model for magmatic intrusions. Computers and Geosciences, 2004, 30, 985-1001.	4.2	27

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109	Geodetic and Geophysical Effects Associated with Seismic and Volcanic Hazards. Pure and Applied Geophysics, 2004, 161, 1301-1303.	1.9	O
110	GPS Monitoring in the N-W Part of the Volcanic Island of Tenerife, Canaries, Spain: Strategy and Results. Pure and Applied Geophysics, 2004, 161, 1359-1377.	1.9	20
111	Study of Volcanic Sources at Long Valley Caldera, California, Using Gravity Data and a Genetic Algorithm Inversion Technique. Pure and Applied Geophysics, 2004, 161, 1399-1413.	1.9	3
112	New Results at Mayon, Philippines, from a Joint Inversion of Gravity and Deformation Measurements. Pure and Applied Geophysics, 2004, 161, 1433-1452.	1.9	19
113	Postseismic viscoelastic-gravitational half space computations: Problems and solutions. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	11
114	Study of Volcanic Sources at Long Valley Caldera, California, Using Gravity Data and a Genetic Algorithm Inversion Technique., 2004, , 1399-1413.		0
115	New Results at Mayon, Philippines, from a Joint Inversion of Gravity and Deformation Measurements. , 2004, , 1433-1452.		5
116	GPS Monitoring in the N-W Part of the Volcanic Island of Tenerife, Canaries, Spain: Strategy and Results., 2004, , 1359-1377.		4
117	A new approach to the monitoring of deformation on Lanzarote (Canary Islands): an 8-year radar perspective. Bulletin of Volcanology, 2003, 65, 1-7.	3.0	6
118	New geodetic monitoring system in the volcanic island of Tenerife, Canaries, Spain. Combination of InSAR and GPS techniques. Journal of Volcanology and Geothermal Research, 2003, 124, 241-253.	2.1	43
119	InSAR volcano and seismic monitoring in Spain. Results for the period 1992–2000 and possible interpretations. Optics and Lasers in Engineering, 2002, 37, 285-297.	3 . 8	21
120	Joint interpretation of displacement and gravity data in volcanic areas. A test example: Long Valley Caldera, California. Geophysical Research Letters, 2001, 28, 1063-1066.	4.0	26
121	Inflation or deflation? New results for Mayon Volcano applying elastic-gravitational modeling. Geophysical Research Letters, 2001, 28, 2349-2352.	4.0	36
122	Interpretation of tidal gravity anomalies in Lanzarote, Canary Islands. Journal of Geodynamics, 2001, 31, 341-354.	1.6	20
123	Viscoelastic displacement and gravity changes due to point magmatic intrusions in a gravitational layered solid earth. Geophysical Journal International, 2001, 146, 155-170.	2.4	27
124	Ground deformation in a viscoelastic medium composed of a layer overlying a half-space: a comparison between point and extended sources. Geophysical Journal International, 2000, 140, 37-50.	2.4	49
125	Spherical and ellipsoidal volcanic sources at Long Valley caldera, California, using a genetic algorithm inversion technique. Journal of Volcanology and Geothermal Research, 2000, 102, 189-206.	2.1	113
126	Sensitivity test of the geodetic network in Las Cañadas Caldera, Tenerife, for volcano monitoring. Journal of Volcanology and Geothermal Research, 2000, 103, 393-407.	2.1	19

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127	Geodetic methods for detecting volcanic unrest: a theoretical approach. Bulletin of Volcanology, 1999, 60, 534-544.	3.0	32
128	Inverting the parameters of an earthquake-ruptured fault with a genetic algorithm. Computers and Geosciences, 1998, 24, 173-182.	4.2	16
129	Programs to compute deformation due to a magma intrusion in elastic-gravitational layered Earth models. Computers and Geosciences, 1997, 23, 231-249.	4.2	35
130	Surface deformation due to a strike-slip fault in an elastic gravitational layer overlying a viscoelastic gravitational half-space. Journal of Geophysical Research, 1996, 101, 3199-3214.	3.3	23
131	Horizontal viscoelastic-gravitational displacement due to a rectangular dipping thrust fault in a layered Earth model. Journal of Geophysical Research, 1996, 101, 13581-13594.	3.3	22
132	Some comments on the effects of earth models on ground deformation modelling. Studia Geophysica Et Geodaetica, 1996, 40, 14-24.	0.5	5
133	Deformation produced by a rectangular dipping fault in a viscoelastic-gravitational layered earth model. Part I: Thrust faultâ€"FLTGRV and FLTGRH FORTRAN programs. Computers and Geosciences, 1996, 22, 735-750.	4.2	21
134	Deformation produced by a rectangular dipping fault in a viscoelastic-gravitational layered earth model. Part II: Strike-slip faultâ€"STRGRV and STRGRH FORTRAN programs. Computers and Geosciences, 1996, 22, 751-764.	4.2	7
135	FORTRAN program to compute displacement, potential, and gravity changes resulting from a magma intrusion in a multilayered Earth model. Computers and Geosciences, 1994, 20, 461-510.	4.2	26
136	Gravity changes and deformation due to a magmatic intrusion in a two-layered crustal model. Journal of Geophysical Research, 1994, 99, 2737-2746.	3.3	61
137	Investigations on crustal thickness, heat flow and gravity tide relationship in Lanzarote Island. Physics of the Earth and Planetary Interiors, 1992, 74, 199-208.	1.9	13
138	Application of multi-sensor advanced DInSAR analysis to severe land subsidence recognition: Alto GuadalentÃn Basin (Spain). Proceedings of the International Association of Hydrological Sciences, 0, 372, 45-48.	1.0	2
139	DETECCIÓN DEL INICIO DE REACTIVACIÓN VOLCÃNICA EN LA ISLA DE LA PALMA, ISLAS CANARIAS, Y ESTUDIO DE SU EVOLUCIÓN TEMPORAL., 0, , .		0