Luis Matias

List of Publications by Year
in descending order

105 papers	3,969 citations	101543 36 h-index	128289 60 g-index
118 all docs	118 docs citations	118 times ranked	2859 citing authors

#	Article	IF	Citations
1	The quest for the Africaâ€“Eurasia plate boundary west of the Strait of Gibraltar. Earth and Planetary Science Letters, 2009, 280, 13-50.	4.4	288
2	Brazilian and African passive margins of the Central Segment of the South Atlantic Ocean: Kinematic constraints. Tectonophysics, 2009, 468, 98-112.	2.2	184
3	Geological constraints on the evolution of the Angolan margin based on reflection and refraction seismic data (ZaÃ¯Ango project). Geophysical Journal International, 2005, 162, 793-810.	2.4	170
4	Deep structure of the West African continental margin (Congo, ZaÃ¯re, Angola), between 5Â°S and 8Â°S, from reflection/refraction seismics and gravity data. Geophysical Journal International, 2004, 158, 529-553.	2.4	162
5	Stress pattern in Portugal mainland and the adjacent Atlantic region, West Iberia. Tectonics, 1996, 15, 641-659.	2.8	140
6	Tsunamigenic-seismogenic structures, neotectonics, sedimentary processes and slope instability on the southwest Portuguese Margin. Marine Geology, 2003, 195, 55-73.	2.1	137
7	Mapping active faults offshore Portugal (36Â°Nâ€“38Â°N): Implications for seismic hazard assessment along the southwest Iberian margin. Geology, 2003, 31, 83.	4.4	132
8	Neogene Through Quaternary Tectonic Reactivation of SW Iberian Passive Margin. Pure and Applied Geophysics, 2004, 161, 565-587.	1.9	117
9	Morphotectonics and strain partitioning at the Iberiaâ€“Africa plate boundary from multibeam and seismic reflection data. Marine Geology, 2009, 267, 156-174.	2.1	106
10	Tsunamigenic earthquakes in the Gulf of Cadiz: fault model and recurrence. Natural Hazards and Earth System Sciences, 2013, 13, 1-13.	3.6	106
11	A deep seismic sounding investigation of lithospheric heterogeneity and anisotropy beneath the Iberian Peninsula. Tectonophysics, 1993, 221, 35-51.	2.2	90
12	From unthinned continent to ocean: The deep structure of the West Iberia passive continental margin at 38Â°N. Tectonophysics, 2008, 458, 9-50.	2.2	88
13	Deep structure of the Armorican Basin (Bay of Biscay): a review of Norgasis seismic reflection and refraction data. Journal of the Geological Society, 2003, 160, 99-116.	2.1	83
14	Crustal structure of a super-slow spreading centre:a seismic refraction study of Mohns Ridge, 72Â N. Geophysical Journal International, 2000, 141, 509-526.	2.4	81
15	Focal mechanisms for subâ€crustal earthquakes in the Gulf of Cadiz from a dense OBS deployment. Geophysical Research Letters, 2010, 37, .	4.0	75
16	Deep structure of the Santos Basinâ€SÃ£o Paulo Plateau System, SE Brazil. Journal of Geophysical Research: Solid Earth, 2015, 120, 5401-5431.	3.4	71
17	Earthquakes in western Iberia: improving the understanding of lithospheric deformation in a slowly deforming region. Geophysical Journal International, 2015, 203, 127-145.	2.4	71
18	Tectonic setting of the Azores Plateau deduced from a OBS survey. Marine Geophysical Researches, 1998, 20, 171-182.	1.2	65

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19	Seismic behaviour estimation of thin alluvium layers using microtremor recordings. Soil Dynamics and Earthquake Engineering, 1996, 15, 201-209.	3.8	63
20	Design of a Sea-level Tsunami Detection Network for the Gulf of Cadiz. Natural Hazards and Earth System Sciences, 2009, 9, 1327-1338.	3.6	61
21	Morphotectonic characterization of major bathymetric lineaments in Gulf of Cadiz (Africaâ€“Iberia) Tj ETQq1 1 0.784314 rgBT /Overlock	2.1	60
22	Neotectonics of the SW Iberia margin, Gulf of Cadiz and Alboran Sea: a reassessment including recent structural, seismic and geodetic data. Geophysical Journal International, 2012, 188, 850-872.	2.4	57
23	Thrustâ€“wrench interference tectonics in the Gulf of Cadiz (Africaâ€“Iberia plate boundary in the) Tj ETQq1 1 0.784314 rgBT /Overlock	2.1	56
24	The 9th of July 1998 Faial Island (Azores, North Atlantic) seismic sequence. Journal of Seismology, 2007, 11, 275-298.	1.3	55
25	The crustal structure of the Central Mozambique continental margin â€" Wide-angle seismic, gravity and magnetic study in the Mozambique Channel, Eastern Africa. Tectonophysics, 2013, 599, 170-196.	2.2	55
26	Crustal seismic velocity structure near Faial and Pico Islands (AZORES), from local earthquake tomography. Tectonophysics, 2007, 445, 301-317.	2.2	54
27	The Making of the NEAM Tsunami Hazard Model 2018 (NEAMTHM18). Frontiers in Earth Science, 2021, 8, .	1.8	50
28	Applying distance sampling to fin whale calls recorded by single seismic instruments in the northeast Atlantic. Journal of the Acoustical Society of America, 2013, 134, 3522-3535.	1.1	48
29	Analysis of seismic reflection data as a tool for the seismotectonic assessment of a low activity intraplate basin â€“ the Lower Tagus Valley (Portugal). Journal of Seismology, 2003, 7, 431-447.	1.3	47
30	Marine Transform Faults and Fracture Zones: A Joint Perspective Integrating Seismicity, Fluid Flow and Life. Frontiers in Earth Science, 2019, 7, .	1.8	46
31	Crustal thinning in the Southwestern Iberia Margin. Geophysical Research Letters, 1996, 23, 2477-2480.	4.0	44
32	Probabilistic Tsunami Hazard in the Northeast Atlantic from Near- and Far-Field Tectonic Sources. Pure and Applied Geophysics, 2015, 172, 901-920.	1.9	43
33	Lithospheric deformation in the Africaâ€“Iberia plate boundary: Improved neotectonic modeling testing a basalâ€driven Alboran plate. Journal of Geophysical Research: Solid Earth, 2016, 121, 6566-6596.	3.4	42
34	Micro-seismicity in the Gulf of Cadiz: Is there a link between micro-seismicity, high magnitude earthquakes and active faults?. Tectonophysics, 2017, 717, 226-241.	2.2	42
35	Seismic crustal structure in the southwest of the Iberian Peninsula and the Gulf of Cadiz. Tectonophysics, 1998, 296, 317-331.	2.2	41
36	Thrustâ€“wrench interference between major active faults in the Gulf of Cadiz (Africaâ€“Eurasia plate) Tj ETQq0 0 0 rgBT /Overlock 10 T Tectonophysics, 2012, 548-549, 1-21.	2.2	40

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37	Crescent-shaped morphotectonic features in the Gulf of Cadiz (offshore SW Iberia). Marine Geology, 2010, 271, 236-249.	2.1	38
38	Kinematic keys of the Santosâ€“Namibe basins. Geological Society Special Publication, 2013, 369, 91-107.	1.3	38
39	Ambient Noise Recorded by a Dense Broadband Seismic Deployment in Western Iberia. Bulletin of the Seismological Society of America, 2014, 104, 2985-3007.	2.3	35
40	Seismic crustal structure in the Gulf of Cadiz (SW Iberian Peninsula). Marine Geophysical Researches, 2001, 22, 207-223.	1.2	33
41	Salt tectonics in the western Gulf of Cadiz, southwest Iberia. AAPG Bulletin, 2011, 95, 1667-1698.	1.5	33
42	The 1909 Benavente (Portugal) earthquake: search for the source. Natural Hazards, 2013, 69, 1211-1227.	3.4	32
43	Crustal structure variations along the NW-African continental margin: A comparison of new and existing models from wide-angle and reflection seismic data. Tectonophysics, 2016, 674, 227-252.	2.2	30
44	Response of a multi-domain continental margin to compression: Study from seismic reflectionâ€“refraction and numerical modelling in the Tagus Abyssal Plain. Tectonophysics, 2009, 468, 113-130.	2.2	29
45	Performance of coastal sea-defense infrastructure at El Jadida (Morocco) against tsunami threat: lessons learned from the Japanese 11 March 2011 tsunami. Natural Hazards and Earth System Sciences, 2013, 13, 1779-1794.	3.6	27
46	Monte Carlo approach to assess the uncertainty of wide-angle layered models: Application to the Santos Basin, Brazil. Tectonophysics, 2016, 683, 286-307.	2.2	26
47	Crustal seismic structure beneath Portugal and southern Galicia (Western Iberia) and the role of Variscan inheritance. Tectonophysics, 2017, 717, 645-664.	2.2	25
48	PLACA: a white box for plate reconstruction and best-fit pole determination. Computers and Geosciences, 2005, 31, 437-452.	4.2	23
49	The 1755 Lisbon earthquake and the beginning of closure of the Atlantic. European Review, 2006, 14, 193-205.	0.7	22
50	Structure of the crust in the schistose domain of Galicia-Tras-os-Montes (NW Iberian Peninsula). Tectonophysics, 1993, 221, 81-93.	2.2	21
51	Analysis of the Mw 4.3 Lorient earthquake sequence: a multidisciplinary approach to the geodynamics of the Armorican Massif, westernmost France. Geophysical Journal International, 2005, 162, 935-950.	2.4	21
52	New insights from seismic tomography on the complex geodynamic evolution of two adjacent domains: Gulf of Cadiz and Alboran Sea. Journal of Geophysical Research: Solid Earth, 2013, 118, 1587-1601.	3.4	21
53	Mantle earthquakes beneath the South Iberia continental margin and Gulf of Cadiz â€“ constraints from an onshore-offshore seismological network. Journal of Geodynamics, 2016, 99, 39-50.	1.6	21
54	Imaging exhumed lower continental crust in the distal Jequitinhonha basin, Brazil. Journal of South American Earth Sciences, 2018, 84, 351-372.	1.4	21

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55	Seismological constraints on the thermal structure along the Lucky Strike segment (Mid-Atlantic) Tj ETQq1 1 0.784314 rgBT /Overloc Geophysical Researches, 2009, 30, 105-120.	1.2	20
56	Mantle beneath the Gibraltar Arc from receiver functions. Geophysical Journal International, 2015, 200, 1153-1169.	2.4	20
57	A single-station method for the detection, classification and location of fin whale calls using ocean-bottom seismic stations. Journal of the Acoustical Society of America, 2015, 138, 504-520.	1.1	20
58	Crustal structure of the NW Moroccan margin from deep seismic data (SISMAR Cruise). Comptes Rendus - Geoscience, 2009, 341, 495-503.	1.2	19
59	Fin whale acoustic presence and song characteristics in seas to the southwest of Portugal. Journal of the Acoustical Society of America, 2020, 147, 2235-2249.	1.1	19
60	Upper crustal structure of Madeira Island revealed from ambient noise tomography. Journal of Volcanology and Geothermal Research, 2015, 298, 136-145.	2.1	18
61	Food talk: 40-Hz fin whale calls are associated with prey biomass. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20211156.	2.6	18
62	Intraplate seismicity across the Cape Verde swell: A contribution from a temporary seismic network. Tectonophysics, 2014, 636, 325-337.	2.2	17
63	Developing an Event-Tree Probabilistic Tsunami Inundation Model for NE Atlantic Coasts: Application to a Case Study. Pure and Applied Geophysics, 2016, 173, 3775-3794.	1.9	17
64	Ambient seismic noise tomography of SW Iberia integrating seafloor- and land-based data. Tectonophysics, 2017, 700-701, 131-149.	2.2	16
65	Seismotectonics of the Horseshoe Abyssal Plain and Gorringe Bank, eastern Atlantic Ocean: Constraints from ocean bottom seismometer data. Journal of Geophysical Research: Solid Earth, 2017, 122, 63-78.	3.4	15
66	Crustal structure of the Eurasiaâ€“Africa plate boundary across the Gloria Fault, North Atlantic Ocean. Geophysical Journal International, 2017, 209, 713-729.	2.4	15
67	Estimation of the Crustal Bulk Properties Beneath Mainland Portugal from P-Wave Teleseismic Receiver Functions. Pure and Applied Geophysics, 2016, 173, 1949-1970.	1.9	14
68	Geophysical study of the Otaâ€“VF Xiraâ€“Lisbonâ€“Sesimbra fault zone and the lower Tagus Cenozoic basin. Journal of Geophysics and Engineering, 2011, 8, 395-411.	1.4	13
69	The Alpine Orogeny in the West and Southwest Iberia Margins. Regional Geology Reviews, 2019, , 487-505.	1.2	13
70	Maximum intensity maps (MIM) for Portugal mainland. Journal of Seismology, 2019, 23, 417-440.	1.3	13
71	SMART Subsea Cables for Observing the Earth and Ocean, Mitigating Environmental Hazards, and Supporting the Blue Economy. Frontiers in Earth Science, 2022, 9, .	1.8	13
72	Comment on "Lisbon 1755: A Case of Triggered Onshore Rupture?" by Susana P. Vilanova, Catarina F. Nunes, and Joao F. B. D. Fonseca. Bulletin of the Seismological Society of America, 2005, 95, 2534-2538.	2.3	12

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73	The Contribution of Submarine Optical Fiber Telecom Cables to the Monitoring of Earthquakes and Tsunamis in the NE Atlantic. Frontiers in Earth Science, 2021, 9, .	1.8	10
74	Subsurface mapping in the Iberian Pyrite Belt using seismic reflection profiling and potential-field data. International Journal of Earth Sciences, 2017, 106, 899-915.	1.8	9
75	On the use of the Lloyd's Mirror effect to infer the depth of vocalizing fin whales. Journal of the Acoustical Society of America, 2020, 148, 3086-3101.	1.1	9
76	Gravitational Potential Energy in Iberia: A Driver of Active Deformation in Highâ€Topography Regions. Journal of Geophysical Research: Solid Earth, 2018, 123, 10,277.	3.4	8
77	Synthetic tsunami waveform catalogs with kinematic constraints. Natural Hazards and Earth System Sciences, 2017, 17, 1253-1265.	3.6	7
78	The Portuguese National Seismic Networkâ€"Products and Services. Seismological Research Letters, 2021, 92, 1541-1570.	1.9	7
79	Geostatistical Seismic Inversion for Temperature and Salinity in the Madeira Abyssal Plain. Frontiers in Marine Science, 2021, 8, .	2.5	7
80	Educating for Earthquake Science and Risk in a Tectonically Slowly Deforming Region. Seismological Research Letters, 2016, 87, 773-782.	1.9	6
81	Shallow crustal models in the Lisbon area from explosion data using body and surface wave analysis. Tectonophysics, 1996, 258, 171-193.	2.2	5
82	Active surface faulting or landsliding in the Lower Tagus Valley (Portugal)? A solved controversy concerning the Vila ChÃ£ de Ourique site. Journal of Seismology, 2011, 15, 215-234.	1.3	5
83	Lloydâ€™s mirror effect in fin whale calls and its use to infer the depth of vocalizing animals. Proceedings of Meetings on Acoustics, 2016, , .	0.3	5
84	On the source of the 8 May 1939 Azores earthquake â€“ tsunami observations and numerical modelling. Geomatics, Natural Hazards and Risk, 2017, 8, 328-347.	4.3	4
85	Rifting of the Southwest and West Iberia Continental Margins. Regional Geology Reviews, 2019, , 251-283.	1.2	4
86	The 1755 Lisbon Earthquake: A Review and the Proposal for a Tsunami Early Warning System in the Gulf of Cadiz. Geotechnical, Geological and Earthquake Engineering, 2009, , 411-423.	0.2	4
87	Evidence of high lateral variations of coda Q from local earthquakes in Western Iberia and its SW offshore area. Tectonophysics, 2020, 791, 228564.	2.2	3
88	Accurate Ocean Bottom Seismometer Positioning Method Inspired by Multilateration Technique. Mathematical Geosciences, 2018, 50, 569-584.	2.4	2
89	Salt Distribution and Morphology in the Offshore Algarve Basin. , 2005, , 481-509.		2
90	Reply to Comment on â€œProbabilistic Tsunami Hazard in the Northeast Atlantic From Near- and Far-Field Tectonic Sourcesâ€•by Fonseca (Pure and Applied Geophysics, 2016). Pure and Applied Geophysics, 2017, 174, 1127-1132.	1.9	1

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91	Progresses in the Assessment of Tsunami Genesis and Impacts around the Portuguese Coasts. , 2005, , 217-230.		1
92	On the Need for a Tsunami Warning System in the North East Atlantic Area (Gulf of Cadiz). , 0, , .		1
93	SPATIAL DISTRIBUTION OF FELT INTENSITIES FOR PORTUGAL EARTHQUAKES. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLII-3/W8, 87-92.	0.2	1
94	Brazilian and Angolan Passive Margins: the kinematic constraints. , 2007, , .		0
95	Insight on the Crustal Stress State in Faial and Pico Islands (Azores), from Analysis of Aftershocks of the 1998 Earthquake. Pure and Applied Geophysics, 2020, 177, 5169-5187.	1.9	0
96	Source Levels of 20 Hz Fin Whale Notes Measured as Sound Pressure and Particle Velocity from Ocean-Bottom Seismometers in the North Atlantic. Journal of Marine Science and Engineering, 2021, 9, 646.	2.6	0
97	Neogene Through Quaternary Tectonic Reactivation of SW Iberian Passive Margin. , 2004, , 565-587.		0
98	Brazilian and Angolan Passive Margins: the kinematic constraints. , 2007, , .		0
99	The crustal structure of the Moroccan continental margin from wide-angle and reflection seismic data. , 2007, , .		0
100	A Geophysical Study of the Lower Tagus Valley and its Implications to Seismic Hazard Evaluation. , 2007, , .		0
101	Relating Crustal Structure and Stress Indicators in the Azores Islands. , 0, , .		0
102	Developing an Event-Tree Probabilistic Tsunami Inundation Model for NE Atlantic Coasts: Application to a Case Study. Pageoph Topical Volumes, 2016, , 3775-3794.	0.2	0
103	A EducaÃ§Ã£o para os sismos e a criaÃ§Ã£o de sociedades mais resilientes. Estudos CindÀ¦inicos, 2019, , 150-170.	0.1	0
104	A sanity check for earthquake recurrence models used in PSHA of slowly deforming regions: the case of SWÂIberia. Natural Hazards and Earth System Sciences, 2022, 22, 117-138.	3.6	0
105	Comment on: â€œInterseismic Strain Accumulation near Lisbon (Portugal) from Space Geodesyâ€•by Fonseca et al. (2021). , 0, , .		0