

Alberto Malinverno

List of Publications by Year in descending order

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67
papers

5,493
citations

126907
33
h-index

118850
62
g-index

71
all docs

71
docs citations

71
times ranked

4734
citing authors

#	ARTICLE	IF	CITATIONS
1	Extension in the Tyrrhenian Sea and shortening in the Apennines as result of arc migration driven by sinking of the lithosphere. <i>Tectonics</i> , 1986, 5, 227-245.	2.8	1,602
2	Parsimonious Bayesian Markov chain Monte Carlo inversion in a nonlinear geophysical problem. <i>Geophysical Journal International</i> , 2002, 151, 675-688.	2.4	364
3	A Cenozoic record of the equatorial Pacific carbonate compensation depth. <i>Nature</i> , 2012, 488, 609-614.	27.8	342
4	Expanded uncertainty quantification in inverse problems: Hierarchical Bayes and empirical Bayes. <i>Geophysics</i> , 2004, 69, 1005-1016.	2.6	227
5	Methane hydrate formation in turbidite sediments of northern Cascadia, IODP Expedition 311. <i>Earth and Planetary Science Letters</i> , 2008, 271, 170-180.	4.4	161
6	A simple method to estimate the fractal dimension of a self-affine series. <i>Geophysical Research Letters</i> , 1990, 17, 1953-1956.	4.0	157
7	Fault strain and seismic coupling on mid-ocean ridges. <i>Journal of Geophysical Research</i> , 1993, 98, 17911-17920.	3.3	154
8	Mechanisms of Methane Hydrate Formation in Geological Systems. <i>Reviews of Geophysics</i> , 2019, 57, 1146-1196.	23.0	126
9	Orbital tuning as an inverse problem: Chronology of the early Aptian oceanic anoxic event 1a (Selli). <i>Journal of Geophysical Research</i> , 2008, 113, 10.1029/2007JB005431.	3.0	125
10	Gas hydrate occurrence from pore water chlorinity and downhole logs in a transect across the northern Cascadia margin (Integrated Ocean Drilling Program Expedition 311). <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	118
11	Marine gas hydrates in thin sand layers that soak up microbial methane. <i>Earth and Planetary Science Letters</i> , 2010, 292, 399-408.	4.4	114
12	The length-scaling properties of topography. <i>Journal of Geophysical Research</i> , 1994, 99, 13997-14012.	3.3	111
13	The regional tectonic fabric of the East Pacific Rise from 12°50'N to 15°10'N. <i>Journal of Geophysical Research</i> , 1991, 96, 7995-8017.	3.3	100
14	Electrical anisotropy due to gas hydrate-filled fractures. <i>Geophysics</i> , 2010, 75, F173-F185.	2.6	92
15	Proterozoic Milankovitch cycles and the history of the solar system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 6363-6368.	7.1	88
16	Quantitative fault studies on the East Pacific Rise: A comparison of sonar imaging techniques. <i>Journal of Geophysical Research</i> , 1994, 99, 15205.	3.3	76
17	Magnetic sequence geomagnetic polarity time scale (MHTC12) that steadies global spreading rates and incorporates astrochronology constraints. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	71
18	Local three-dimensional earthquake tomography by trans-dimensional Monte Carlo sampling. <i>Geophysical Journal International</i> , 2015, 201, 1598-1617.	2.4	64

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19	A characterization of the spectral density of residual ocean floor topography. Geophysical Research Letters, 1988, 15, 1401-1404.	4.0	57
20	Receiver function inversion by trans-dimensional Monte Carlo sampling. Geophysical Journal International, 2010, , .	2.4	56
21	Modeling sulfate reduction in methane hydrate-bearing continental margin sediments: Does a sulfate-methane transition require anaerobic oxidation of methane?. Geochemistry, Geophysics, Geosystems, 2011, 12, n/a-n/a.	2.5	54
22	Processing of SeaMARC swath sonar data. IEEE Journal of Oceanic Engineering, 1990, 15, 14-23.	3.8	52
23	Short migration of methane into a gas hydrate-bearing sand layer at Walker Ridge, Gulf of Mexico. Geochemistry, Geophysics, Geosystems, 2013, 14, 283-291.	2.5	52
24	Testing short-range migration of microbial methane as a hydrate formation mechanism: Results from Andaman Sea and Kumano Basin drill sites and global implications. Earth and Planetary Science Letters, 2015, 422, 105-114.	4.4	52
25	Morphology of a "superfast" Mid-Ocean Ridge crest and flanks: The East Pacific Rise, 7°1/2°-9°1/2° S. Marine Geophysical Researches, 1993, 15, 65-75.	1.2	51
26	Two ways to quantify uncertainty in geophysical inverse problems. Geophysics, 2006, 71, W15-W27.	2.6	51
27	A Bayesian criterion for simplicity in inverse problem parametrization. Geophysical Journal International, 2000, 140, 267-285.	2.4	48
28	Natural gas hydrates occupying fractures: A focus on non-vent sites on the Indian continental margin and the northern Gulf of Mexico. Marine and Petroleum Geology, 2014, 58, 278-291.	3.3	48
29	Gas hydrate reservoirs and gas migration mechanisms in the Terrebonne Basin, Gulf of Mexico. Marine and Petroleum Geology, 2017, 86, 1357-1373.	3.3	48
30	Abyssal Hill Segmentation: Quantitative analysis of the East Pacific Rise flanks 7°S-9°S. Journal of Geophysical Research, 1993, 98, 13851-13862.	3.3	43
31	Systematic along-axis tidal triggering of microearthquakes observed at 9°50'N East Pacific Rise. Geophysical Research Letters, 2009, 36, .	4.0	40
32	Monte-Carlo Bayesian look-ahead inversion of walkaway vertical seismic profiles. Geophysical Prospecting, 2005, 53, 689-703.	1.9	39
33	Permeability and porosity of hydrate-bearing sediments in the northern Gulf of Mexico. Marine and Petroleum Geology, 2015, 68, 551-564.	3.3	37
34	Testing linear models of sea-floor topography. Pure and Applied Geophysics, 1989, 131, 139-155.	1.9	36
35	Normal faulting and the topographic roughness of mid-ocean ridge flanks. Journal of Geophysical Research, 1993, 98, 17921-17939.	3.3	34
36	On the power law size distribution of turbidite beds. Basin Research, 1997, 9, 263-274.	2.7	34

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37	Abyssal hill topography as an indicator of episodicity in crustal accretion and deformation. Earth and Planetary Science Letters, 1990, 99, 154-169.	4.4	32
38	Short-range, overpressure-driven methane migration in coarse-grained gas hydrate reservoirs. Geophysical Research Letters, 2016, 43, 9500-9508.	4.0	32
39	A stochastic model for the creation of abyssal hill topography at a slow spreading center. Journal of Geophysical Research, 1989, 94, 1665-1675.	3.3	30
40	The effect of temperature on organic carbon degradation in marine sediments. Scientific Reports, 2015, 5, 17861.	3.3	28
41	A Monte Carlo method to quantify uncertainty in the inversion of zero-offset VSP data. , 2000, , .		28
42	Segmentation of topographic profiles of the seafloor based on a self-affine model. IEEE Journal of Oceanic Engineering, 1989, 14, 348-359.	3.8	26
43	Wilkes transform system and "nannoplate". Geology, 1993, 21, 623.	4.4	26
44	A dual-grid nonlinear inversion technique with applications to the interpretation of dc resistivity data. Geophysics, 2000, 65, 1733-1745.	2.6	26
45	Bayesian inversion of DC electrical measurements with uncertainties for reservoir monitoring. Inverse Problems, 2000, 16, 1343-1356.	2.0	25
46	A quantitative study of the axial topography of the Mid-Atlantic Ridge. Journal of Geophysical Research, 1990, 95, 2645-2660.	3.3	23
47	Linking basin-scale and pore-scale gas hydrate distribution patterns in diffusion-dominated marine hydrate systems. Geochemistry, Geophysics, Geosystems, 2017, 18, 653-675.	2.5	23
48	Morphology of the Ebro fan valleys from SeaMARC and sea beam profiles. Geo-Marine Letters, 1985, 5, 141-148.	1.1	22
49	Expedition 344 summary. Proceedings of the Integrated Ocean Drilling Program Integrated Ocean Drilling Program, 0, , .	1.0	22
50	Burial-driven methane recycling in marine gas hydrate systems. Earth and Planetary Science Letters, 2018, 499, 197-204.	4.4	21
51	Morphology and downslope sediment displacement in a deep-sea valley, the Valencia Valley (Northwestern Mediterranean). Geo-Marine Letters, 1985, 5, 149-156.	1.1	20
52	Assessing uncertainties in high-resolution, multifrequency receiver-function inversion: A comparison with borehole data. Geophysics, 2018, 83, KS11-KS22.	2.6	20
53	Evidence for a Northern Hemispheric trigger of the 100,000-y glacial cyclicity. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	19
54	Fractals and Ocean Floor Topography: A Review and a Model. , 1995, , 107-130.		16

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55	16. Evaluation of Natural Gas-Hydrate Systems Using Borehole Logs. , 2010, , 239-261.		16
56	Gas hydrate transect across Northern Cascadia Margin. Eos, 2006, 87, 325.	0.1	14
57	Horizontal principal stress orientation in the Costa Rica Seismogenesis Project (CRISP) transect from borehole breakouts. Geochemistry, Geophysics, Geosystems, 2016, 17, 65-77.	2.5	14
58	A Late Cretaceous–Eocene Geomagnetic Polarity Timescale (MQSD20) That Steadies Spreading Rates on Multiple Mid–Ocean Ridge Flanks. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB020034.	3.4	14
59	Factors Controlling Short–Range Methane Migration of Gas Hydrate Accumulations in Thin Coarse–Grained Layers. Geochemistry, Geophysics, Geosystems, 2019, 20, 3985-4000.	2.5	12
60	Pacific trench motions controlled by the asymmetric plate configuration. Tectonics, 2008, 27, .	2.8	9
61	Glacial Cycles Influence Marine Methane Hydrate Formation. Geophysical Research Letters, 2018, 45, 724-732.	4.0	7
62	Horizontal compressive stress regime on the northern Cascadia margin inferred from borehole breakouts. Geochemistry, Geophysics, Geosystems, 2016, 17, 3529-3545.	2.5	6
63	Orbital forcing of carbonate versus siliceous productivity in the late Albian–late Cenomanian (Umbria-Marche Basin, central Italy). Newsletters on Stratigraphy, 2019, 52, 197-220.	1.2	5
64	Data report: Monte Carlo correlation of sediment records from core and downhole log measurements at Sites U1337 and U1338 (IODP Expedition 321). Proceedings of the Integrated Ocean Drilling Program Integrated Ocean Drilling Program, 0, , .	1.0	5
65	Fast Model Updates Using Wavelets. Multiscale Modeling and Simulation, 2005, 3, 106-130.	1.6	4
66	Reply [to “Comment on “A quantitative study of the axial topography of the Mid–Atlantic Ridge” by Alberto Malinverno”]. Journal of Geophysical Research, 1991, 96, 2049-2056.	3.3	2
67	Cominco American well: Implications for the reconstruction of the Sevier orogen and basin and range extension in west-central Utah. Numerische Mathematik, 2012, 312, 508-533.	1.4	2