

R W Hobbs

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/63133/publications.pdf>

Version: 2024-02-01

137
papers

3,459
citations

147801

31
h-index

182427

51
g-index

147
all docs

147
docs citations

147
times ranked

2486
citing authors

#	ARTICLE	IF	CITATIONS
1	Size and morphology of the Chicxulub impact crater. <i>Nature</i> , 1997, 390, 472-476.	27.8	250
2	A framework for 3-D joint inversion of MT, gravity and seismic refraction data. <i>Geophysical Journal International</i> , 2011, 184, 477-493.	2.4	211
3	The deep structure of northern England and the lapetus Suture zone from BIRPS deep seismic reflection profiles. <i>Journal of the Geological Society</i> , 1988, 145, 727-740.	2.1	122
4	Joint inversion of marine magnetotelluric and gravity data incorporating seismic constraints Preliminary results of sub-basalt imaging off the Faroe Shelf. <i>Earth and Planetary Science Letters</i> , 2009, 282, 47-55.	4.4	111
5	Evidence from three-dimensional seismic reflectivity images for enhanced melt supply beneath mid-ocean -ridge discontinuities. <i>Nature</i> , 2000, 406, 614-618.	27.8	110
6	The crust as a heterogeneous "optical" medium, or "crocodiles in the mist". <i>Tectonophysics</i> , 1994, 232, 281-297.	2.2	86
7	Evidence for a thick free gas layer beneath the bottom simulating reflector in the Makran accretionary prism. <i>Marine Geology</i> , 2000, 164, 3-12.	2.1	82
8	Flood basalt facies from borehole data: implications for prospectivity and volcanology in volcanic rifted margins. <i>Petroleum Geoscience</i> , 2009, 15, 313-324.	1.5	78
9	Understanding the offshore flood basalt sequence using onshore volcanic facies analogues: an example from the Faroe-Shetland basin. <i>Geological Magazine</i> , 2009, 146, 353-367.	1.5	75
10	Seismic reflection images of the Moho underlying melt sills at the East Pacific Rise. <i>Nature</i> , 2006, 442, 287-290.	27.8	69
11	The role of pre-existing structures during rifting, continental breakup and transform system development, offshore West Greenland. <i>Basin Research</i> , 2018, 30, 373-394.	2.7	67
12	Ocean temperature and salinity inverted from combined hydrographic and seismic data. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	65
13	Mapping and analysing virtual outcrops. <i>Visual Geosciences</i> , 2005, 10, 13-19.	0.5	57
14	Estimating mixing rates from seismic images of oceanic structure. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	56
15	Seismic structure, gravity anomalies, and flexure of the Amazon continental margin, NE Brazil. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	56
16	Basin-forming processes and the deep structure of the Campos Basin, offshore Brazil. <i>Marine and Petroleum Geology</i> , 1990, 7, 94-122.	3.3	53
17	Crustal structure of the NE Rockall Trough from wide-angle seismic data modeling. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	51
18	Some attributes of wavefields scattered from Ivrea-type lower crust. <i>Tectonophysics</i> , 1994, 232, 267-279.	2.2	49

#	ARTICLE	IF	CITATIONS
19	Demerara Plateau - the structure and evolution of a transform passive margin. <i>Geophysical Journal International</i> , 2008, 172, 549-564.	2.4	48
20	Verification of velocity-resistivity relationships derived from structural joint inversion with borehole data. <i>Geophysical Research Letters</i> , 2013, 40, 3596-3601.	4.0	47
21	An adaptive coupling strategy for joint inversions that use petrophysical information as constraints. <i>Journal of Applied Geophysics</i> , 2017, 136, 279-297.	2.1	47
22	Massively parallel forward modeling of scalar and tensor gravimetry data. <i>Computers and Geosciences</i> , 2010, 36, 680-686.	4.2	45
23	Closure of the Tornquist sea: Constraints from MONA LISA deep seismic reflection data. <i>Geology</i> , 1997, 25, 1071-1074.	4.4	44
24	Stochastic characterization and seismic response of upper and middle crustal rocks based on the Lewisian gneiss complex, Scotland. <i>Geophysical Journal International</i> , 1994, 119, 243-259.	2.4	42
25	Seismic attenuation of Atlantic margin basalts: Observations and modeling. <i>Geophysics</i> , 2006, 71, B211-B221.	2.6	42
26	Crustal structure of the French Guiana margin, West Equatorial Atlantic. <i>Geophysical Journal International</i> , 2007, 169, 964-987.	2.4	42
27	Crustal structure of the central and southern North Sea from BIRPS deep seismic reflection profiling. <i>Journal of the Geological Society</i> , 1991, 148, 445-457.	2.1	41
28	The structure of the Rockall Trough imaged by deep seismic reflection profiling. <i>Journal of the Geological Society</i> , 1997, 154, 497-502.	2.1	38
29	Internal structure of a contourite drift generated by the Antarctic Circumpolar Current. <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	2.5	38
30	Three-dimensional shallow crustal emplacement at the 9°03'N overlapping spreading center on the East Pacific Rise: Correlations between magnetization and tomographic images. <i>Journal of Geophysical Research</i> , 2001, 106, 16101-16117.	3.3	36
31	Ringed structural zones with deep roots formed by the Chicxulub impact. <i>Journal of Geophysical Research</i> , 1999, 104, 10743-10755.	3.3	35
32	Joint inversion of MT, gravity and seismic data applied to sub-basalt imaging. , 2006, , .		32
33	Seismic reflection along the path of the Mediterranean Undercurrent. <i>Continental Shelf Research</i> , 2009, 29, 1848-1860.	1.8	31
34	Quantifying the influence of sill intrusion on the thermal evolution of organic-rich sedimentary rocks in nonvolcanic passive margins: an example from <scp>ODP</scp> 210Ӽ, offshore Newfoundland, Canada. <i>Basin Research</i> , 2017, 29, 249-265.	2.7	31
35	Estimating movement of reflectors in the water column using seismic oceanography. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	30
36	Evidence for unusually thin oceanic crust and strong mantle beneath the Amazon Fan. <i>Geology</i> , 2006, 34, 1081.	4.4	29

#	ARTICLE	IF	CITATIONS
37	Effective Q determination using frequency methods on BIRPS data. <i>Tectonophysics</i> , 1990, 173, 25-30.	2.2	28
38	Effect of seismic source bandwidth on reflection sections to image water structure. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	26
39	Seismic imaging of a large horizontal vortex at abyssal depths beneath the Sub-Antarctic Front. <i>Nature Geoscience</i> , 2012, 5, 542-546.	12.9	26
40	Tracking bottom waters in the Southern Adriatic Sea applying seismic oceanography techniques. <i>Continental Shelf Research</i> , 2012, 44, 30-38.	1.8	26
41	Bayesian Strategies to Assess Uncertainty in Velocity Models. <i>Bayesian Analysis</i> , 2012, 7, .	3.0	24
42	Markov Chain Monte Carlo inversion of temperature and salinity structure of an internal solitary wave packet from marine seismic data. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 3692-3709.	2.6	24
43	Evolution of the Southwest Australian Rifted Continental Margin During Breakup of East Gondwana: Results From International Ocean Discovery Program Expedition 369. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2020GC009144.	2.5	22
44	Complex structure along a Mesozoic sea-floor spreading ridge: BIRPS deep seismic reflection, Cape Verde abyssal plain. <i>Geophysical Journal International</i> , 1994, 119, 453-478.	2.4	21
45	A three-dimensional study of a crustal low velocity region beneath the 9°03'N overlapping spreading center. <i>Geophysical Research Letters</i> , 2003, 30, .	4.0	21
46	Re-evaluation of the Mentelle Basin, a polyphase rifted margin basin, offshore southwest Australia: new insights from integrated regional seismic datasets. <i>Solid Earth</i> , 2011, 2, 107-123.	2.8	21
47	Marine seismic observation of internal solitary wave packets in the northeast South China Sea. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 8487-8503.	2.6	21
48	A sequential dynamic Bayesian network for pore-pressure estimation with uncertainty quantification. <i>Geophysics</i> , 2018, 83, D27-D39.	2.6	21
49	Dating the source of lower crystal reflectivity using BIRPS deep Seismic profiles across the Iapetus suture. <i>Tectonophysics</i> , 1990, 173, 445-454.	2.2	20
50	Upper mantle reflector structure and origin beneath the Scottish Caledonides. <i>Tectonics</i> , 1995, 14, 1351-1367.	2.8	20
51	The effects of out-of-plane seismic energy on reflections in crustal-scale 2D seismic sections. <i>Tectonophysics</i> , 2004, 388, 213-224.	2.2	20
52	Estimating Geostrophic Shear from Seismic Images of Oceanic Structure*. <i>Journal of Atmospheric and Oceanic Technology</i> , 2011, 28, 1149-1154.	1.3	20
53	Seismic attenuation in the continental crust SW of England. <i>Geophysical Journal International</i> , 1990, 103, 533-540.	2.4	19
54	Internal structure of a spreading segment of Mesozoic oceanic crust. <i>Geology</i> , 1994, 22, 597.	4.4	19

#	ARTICLE	IF	CITATIONS
55	A comparison between airguns and explosives as wide-angle seismic sources. <i>Geophysical Prospecting</i> , 1999, 47, 313-339.	1.9	19
56	Estimating internal wave spectra using constrained models of the dynamic ocean. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	19
57	Mapping turbidity layers using seismic oceanography methods. <i>Ocean Science</i> , 2012, 8, 11-18.	3.4	19
58	Modelling complex media: an introduction to the phase-screen method. <i>Physics of the Earth and Planetary Interiors</i> , 2000, 120, 219-225.	1.9	18
59	Reconstructing flood basalt lava flows in three dimensions using terrestrial laser scanning. , 2011, 7, 87-96.		18
60	Monte Carlo sampling for error propagation in linear regression and applications in isochron geochronology. <i>Science Bulletin</i> , 2019, 64, 189-197.	9.0	18
61	Do fracture zones define continental margin segmentation? " Evidence from the French Guiana margin. <i>Earth and Planetary Science Letters</i> , 2008, 272, 553-566.	4.4	17
62	Effect of bandwidth on seismic imaging of rotating stratified turbulence surrounding an anticyclonic eddy from field data and numerical simulations. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	17
63	High resolution seismic imaging of the ocean structure using a small volume airgun source array in the Gulf of Cadiz. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	17
64	A lower to middle Eocene astrochronology for the Mentelle Basin (Australia) and its implications for the geologic time scale. <i>Earth and Planetary Science Letters</i> , 2020, 529, 115865.	4.4	17
65	Asymmetric melt sills and upper crustal construction beneath overlapping ridge segments: Implications for the development of melt sills and ridge crests. <i>Geology</i> , 2002, 30, 83.	4.4	16
66	An irregular feather-edge and potential outcrop of marine gas hydrate along the Mauritanian margin. <i>Earth and Planetary Science Letters</i> , 2015, 423, 202-209.	4.4	16
67	Is lower crustal layering related to extension?. <i>Geophysical Journal International</i> , 1987, 89, 239-242.	2.4	15
68	Influence of enhanced melt supply on upper crustal structure at a mid-ocean ridge discontinuity: A three-dimensional seismic tomographic study of 9°N East Pacific Rise. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	15
69	Detecting and characterizing mesoscale and submesoscale structures of Mediterranean water from joint seismic and hydrographic measurements in the Gulf of Cadiz. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	15
70	Detecting changes at the leading edge of an interface between oceanic water layers. <i>Nature Communications</i> , 2019, 10, 4674.	12.8	15
71	Expedition 369 methods. <i>Proceedings of the International Ocean Discovery Program</i> , 0, , .	0.0	15
72	3-D cross-gradient joint inversion of seismic refraction and DC resistivity data. <i>Journal of Applied Geophysics</i> , 2017, 141, 54-67.	2.1	14

#	ARTICLE	IF	CITATIONS
73	Does intermediate spreading-rate oceanic crust result from episodic transition between magmatic and magma-dominated, faulting-enhanced spreading?â€”The Costa Rica Rift example. <i>Geophysical Journal International</i> , 2019, 218, 1617-1641.	2.4	14
74	The role of Mesozoic rifting in the opening of the NE Atlantic: evidence from deep seismic profiling across the Faroeâ€”Shetland Trough. <i>Journal of the Geological Society</i> , 2005, 162, 661-673.	2.1	14
75	Broadband receiver response from dualâ€”streamer data and applications in deep reflection seismology. <i>Geophysics</i> , 1996, 61, 232-243.	2.6	14
76	Adaptive coupling strategy for simultaneous joint inversions that use petrophysical information as constraints. , 2010, , .		13
77	Thermal structure of the Panama Basin by analysis of seismic attenuation. <i>Tectonophysics</i> , 2018, 730, 81-99.	2.2	13
78	Deep seismic reflection profiles across the Chicxulub Crater. , 1999, , .		12
79	Evidence for non-marine Jurassic to earliest Cretaceous sediments in the pre-breakup section of the Mentelle Basin, southwestern Australia. <i>Australian Journal of Earth Sciences</i> , 2020, 67, 89-105.	1.0	12
80	Site U1513. <i>Proceedings of the International Ocean Discovery Program</i> , 0, , .	0.0	12
81	Seismic reflection imaging of mixing processes in Fram Strait. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 6884-6896.	2.6	11
82	Bending fatigue in high-strength fibre ropes. <i>International Journal of Fatigue</i> , 1991, 13, 174-180.	5.7	10
83	Seismic reflection profiling in deep water: avoiding spurious reflectivity at lower-crustal and upper-mantle traveltimes. <i>Tectonophysics</i> , 1994, 232, 425-435.	2.2	10
84	Statistical inversion of controlled-source seismic data using parabolic wave scattering theory. <i>Geophysical Journal International</i> , 2002, 132, 61-78.	2.4	10
85	The effects of three-dimensional structure on two-dimensional images of crustal seismic sections and on the interpretation of shear zone morphology. <i>Geophysical Journal International</i> , 2006, 164, 490-500.	2.4	10
86	Analysis of a conductive heat flow profile in the Ecuador Fracture Zone. <i>Earth and Planetary Science Letters</i> , 2017, 467, 120-127.	4.4	10
87	Stochastic Heterogeneity Mapping around a Mediterranean salt lens. <i>Ocean Science</i> , 2010, 6, 423-429.	3.4	9
88	Improving the interpretability of air-gun seismic reflection data using deterministic filters: A case history from offshore Cape Leeuwin, southwest Australia. <i>Geophysics</i> , 2011, 76, B113-B125.	2.6	9
89	Probable patterns of gas flow and hydrate accretion at the base of the hydrate stability zone. <i>Geology</i> , 2014, 42, 1055-1058.	4.4	9
90	Joint-inversion of magnetotelluric, gravity and seismic data to image sub-basalt sediments offshore the Faroe-Islands. , 2014, , .		9

#	ARTICLE	IF	CITATIONS
91	Marine seismic sources used for deep seismic reflection profiling. <i>First Break</i> , 1992, 10, .	0.4	8
92	Joint stochastic constraint of a large data set from a salt dome. <i>Geophysics</i> , 2016, 81, ID1-ID24.	2.6	8
93	Preliminary results are in from mid-ocean ridge three-dimensional seismic reflection survey. <i>Eos</i> , 1999, 80, 181.	0.1	7
94	Magnetic gradient and ground penetrating radar prospecting of buried earthen archaeological remains at the Qocho City site in Turpan, China. <i>Near Surface Geophysics</i> , 2015, 13, 477-485.	1.2	7
95	On the Use of Fractal Surfaces to Understand Seismic Wave Propagation in Layered Basalt Sequences. <i>Pure and Applied Geophysics</i> , 2015, 172, 1879-1892.	1.9	7
96	Gas venting that bypasses the feather edge of marine hydrate, offshore Mauritania. <i>Marine and Petroleum Geology</i> , 2017, 88, 402-409.	3.3	7
97	Geothermal Heating in the Panama Basin: 1. Hydrography of the Basin. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 7382-7392.	2.6	7
98	Geothermal Heating in the Panama Basin. Part II: Abyssal Water Mass Transformation. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 7393-7406.	2.6	7
99	Site U1512. <i>Proceedings of the International Ocean Discovery Program</i> , 0, , .	0.0	7
100	Site U1516. <i>Proceedings of the International Ocean Discovery Program</i> , 0, , .	0.0	7
101	Lower crustal reflectivity from waveform inversion. <i>Geophysical Journal International</i> , 1993, 115, 410-420.	2.4	6
102	Crustal constraint through complete model space screening for diverse geophysical datasets facilitated by emulation. <i>Tectonophysics</i> , 2012, 572-573, 47-63.	2.2	6
103	Labeling longâ€period multiple reflections. <i>Geophysics</i> , 1989, 54, 122-126.	2.6	6
104	Expedition 369 summary. <i>Proceedings of the International Ocean Discovery Program</i> , 0, , .	0.0	6
105	Seismic Imaging Using Complex Wavelets. , 0, , .		5
106	Some improvements in subbasalt imaging using pre-stack depth migration. <i>Solid Earth</i> , 2011, 2, 1-7.	2.8	5
107	Magnetic Gradient and Electrical Resistivity Tomography Surveys in Meroe, the Capital City of the Kush Kingdom, Sudan. <i>Archaeological Prospection</i> , 2012, 19, 59-68.	2.2	5
108	Magmatic and tectonic segmentation of the intermediate-spreading Costa Rica Riftâ€a fine balance between magma supply rate, faulting and hydrothermal circulation. <i>Geophysical Journal International</i> , 2020, 222, 132-152.	2.4	5

#	ARTICLE	IF	CITATIONS
109	On the "wraparound" multiple problem of recording seismic reflections in deep water. <i>Geophysics</i> , 1994, 59, 1160-1165.	2.6	5
110	Site U1514. <i>Proceedings of the International Ocean Discovery Program</i> , 0, , .	0.0	5
111	Marine source signature measurement using a reference seismic source. , 2000, , .		4
112	Evolution of heat flow, hydrothermal circulation and permeability on the young southern flank of the Costa Rica Rift. <i>Geophysical Journal International</i> , 2020, 220, 278-295.	2.4	4
113	Evolution and properties of young oceanic crust: constraints from Poisson's ratio. <i>Geophysical Journal International</i> , 2021, 225, 1874-1896.	2.4	4
114	Local rift and intraplate seismicity reveal shallow crustal fluid-related activity and sub-crustal faulting. <i>Earth and Planetary Science Letters</i> , 2021, 562, 116857.	4.4	4
115	Site U1515. <i>Proceedings of the International Ocean Discovery Program</i> , 0, , .	0.0	4
116	Layers thicknesses in the lower crust: Modelling and spectral analysis of BIRPS data. <i>Geodynamic Series</i> , 1991, , 351-357.	0.1	3
117	Extension of forward modeling phase-screen code in isotropic and anisotropic media up to critical angle. <i>Geophysics</i> , 2007, 72, SM107-SM114.	2.6	3
118	Using a local Monte Carlo strategy to assess 1-D velocity models from wide-angle seismic travel-time data and application to the Rockall Trough. <i>Tectonophysics</i> , 2009, 472, 284-289.	2.2	3
119	Multiple suppression in deep water. <i>Geodynamic Series</i> , 1991, , 383-389.	0.1	2
120	Modelling and processing of 3D seismic data collected over the overlapping spreading centre on the East Pacific Rise at 9° 03' N. <i>Geological Society Special Publication</i> , 2003, 212, 251-259.	1.3	2
121	Seismic image reconstruction using complex wavelets. , 2005, 5674, 27.		2
122	Emulation: A Bayesian tool for joint inversion. , 2010, , .		2
123	A framework for 3D joint inversion of MT, gravity and seismic refraction data. , 2010, , .		2
124	Study on the limitations of travel-time inversion applied to sub-basalt imaging. <i>Solid Earth</i> , 2013, 4, 543-554.	2.8	2
125	Geophysical evidence for structurally-controlled, authigenic carbonate cementation in the Laminaria High, Bonaparte basin, Northwest Shelf of Australia. <i>Marine and Petroleum Geology</i> , 2019, 99, 563-576.	3.3	2
126	Contourite processes associated with the overflow of Pacific Deep Water within the Luzon Trough: Conceptual and regional implications. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2021, 170, 103459.	1.4	2

#	ARTICLE	IF	CITATIONS
127	Age of magmatism and alteration of basaltic rocks cored at the base of IODP Site U1513, Naturaliste Plateau, southwestern Australia. Australian Journal of Earth Sciences, 2022, 69, 383-405.	1.0	2
128	Gravity Modelling Based on Small Cells. , 2005, , .		2
129	Temperature and Salinity Inverted for a Mediterranean Eddy Captured With Seismic Data, Using a Spatially Iterative Markov Chain Monte Carlo Approach. Frontiers in Marine Science, 2021, 8, .	2.5	2
130	Seismic oceanography imaging of thermal intrusions in strong frontal regions. Proceedings of Meetings on Acoustics, 2013, , .	0.3	1
131	Uncertainty analysis of depth predictions from seismic reflection data using Bayesian statistics. Geophysical Journal International, 2018, 213, 2161-2176.	2.4	1
132	Seismic Imaging of Lower Crustal Heterogeneity. , 2003, , 237-255.		1
133	Seismic oceanography: Processing data from the Rockall trough, west of Ireland. , 2007, , .		0
134	Exploring the shelf-slope dynamics in the Adriatic Sea using numerical models and seismic oceanography (SO). Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
135	Characterization of thermohaline staircases in the Tyrrhenian Sea using stochastic heterogeneity mapping. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
136	Mapping turbidity layers using a combination of high resolution seismic oceanographic and physical oceanographic data. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
137	Structure of Atlantic Oceanic Crust Around Chron M16 from Deep Seismic Reflection Profiles. , 1995, , 183-196.		0