

# R W Hobbs

## List of Publications by Year in descending order

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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	Age of magmatism and alteration of basaltic rocks cored at the base of IODP Site U1513, Naturaliste Plateau, southwestern Australia. <i>Australian Journal of Earth Sciences</i> , 2022, 69, 383-405.	1.0	2
2	Evolution and properties of young oceanic crust: constraints from Poisson's ratio. <i>Geophysical Journal International</i> , 2021, 225, 1874-1896.	2.4	4
3	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
4	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
5	Temperature and Salinity Inverted for a Mediterranean Eddy Captured With Seismic Data, Using a Spatially Iterative Markov Chain Monte Carlo Approach. <i>Frontiers in Marine Science</i> , 2021, 8, .	2.5	2
6	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
7	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
8	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
9	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
10	Magmatic and tectonic segmentation of the intermediate-spreading Costa Rica Rift—a fine balance between magma supply rate, faulting and hydrothermal circulation. <i>Geophysical Journal International</i> , 2020, 222, 132-152.	2.4	5
11	Does intermediate spreading-rate oceanic crust result from episodic transition between magmatic and magma-dominated, faulting-enhanced spreading?—The Costa Rica Rift example. <i>Geophysical Journal International</i> , 2019, 218, 1617-1641.	2.4	14
12	Detecting changes at the leading edge of an interface between oceanic water layers. <i>Nature Communications</i> , 2019, 10, 4674.	12.8	15
13	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
14	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
15	Thermal structure of the Panama Basin by analysis of seismic attenuation. <i>Tectonophysics</i> , 2018, 730, 81-99.	2.2	13
16	Uncertainty analysis of depth predictions from seismic reflection data using Bayesian statistics. <i>Geophysical Journal International</i> , 2018, 213, 2161-2176.	2.4	1
17	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
18	A sequential dynamic Bayesian network for pore-pressure estimation with uncertainty quantification. <i>Geophysics</i> , 2018, 83, D27-D39.	2.6	21

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19	Geothermal Heating in the Panama Basin: 1. Hydrography of the Basin. Journal of Geophysical Research: Oceans, 2018, 123, 7382-7392.	2.6	7
20	Geothermal Heating in the Panama Basin. Part II: Abyssal Water Mass Transformation. Journal of Geophysical Research: Oceans, 2018, 123, 7393-7406.	2.6	7
21	Quantifying the influence of sill intrusion on the thermal evolution of organic-rich sedimentary rocks in nonvolcanic passive margins: an example from ODP 210, offshore Newfoundland, Canada. Basin Research, 2017, 29, 249-265.	2.7	31
22	An adaptive coupling strategy for joint inversions that use petrophysical information as constraints. Journal of Applied Geophysics, 2017, 136, 279-297.	2.1	47
23	Analysis of a conductive heat flow profile in the Ecuador Fracture Zone. Earth and Planetary Science Letters, 2017, 467, 120-127.	4.4	10
24	3-D cross-gradient joint inversion of seismic refraction and DC resistivity data. Journal of Applied Geophysics, 2017, 141, 54-67.	2.1	14
25	Gas venting that bypasses the feather edge of marine hydrate, offshore Mauritania. Marine and Petroleum Geology, 2017, 88, 402-409.	3.3	7
26	Joint stochastic constraint of a large data set from a salt dome. Geophysics, 2016, 81, ID1-ID24.	2.6	8
27	Markov Chain Monte Carlo inversion of temperature and salinity structure of an internal solitary wave packet from marine seismic data. Journal of Geophysical Research: Oceans, 2016, 121, 3692-3709.	2.6	24
28	Seismic reflection imaging of mixing processes in Fram Strait. Journal of Geophysical Research: Oceans, 2015, 120, 6884-6896.	2.6	11
29	Marine seismic observation of internal solitary wave packets in the northeast South China Sea. Journal of Geophysical Research: Oceans, 2015, 120, 8487-8503.	2.6	21
30	Magnetic gradient and ground penetrating radar prospecting of buried earthen archaeological remains at the Qocho City site in Turpan, China. Near Surface Geophysics, 2015, 13, 477-485.	1.2	7
31	On the Use of Fractal Surfaces to Understand Seismic Wave Propagation in Layered Basalt Sequences. Pure and Applied Geophysics, 2015, 172, 1879-1892.	1.9	7
32	An irregular feather-edge and potential outcrop of marine gas hydrate along the Mauritanian margin. Earth and Planetary Science Letters, 2015, 423, 202-209.	4.4	16
33	Probable patterns of gas flow and hydrate accretion at the base of the hydrate stability zone. Geology, 2014, 42, 1055-1058.	4.4	9
34	Joint-inversion of magnetotelluric, gravity and seismic data to image sub-basalt sediments offshore the Faroe-Islands. , 2014, , .		9
35	Verification of velocity-resistivity relationships derived from structural joint inversion with borehole data. Geophysical Research Letters, 2013, 40, 3596-3601.	4.0	47
36	Study on the limitations of travel-time inversion applied to sub-basalt imaging. Solid Earth, 2013, 4, 543-554.	2.8	2

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37	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
38	Characterization of thermohaline staircases in the Tyrrhenian Sea using stochastic heterogeneity mapping. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
39	Seismic oceanography imaging of thermal intrusions in strong frontal regions. Proceedings of Meetings on Acoustics, 2013, , .	0.3	1
40	Mapping turbidity layers using a combination of high resolution seismic oceanographic and physical oceanographic data. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
41	Bayesian Strategies to Assess Uncertainty in Velocity Models. Bayesian Analysis, 2012, 7, .	3.0	24
42	Seismic imaging of a large horizontal vortex at abyssal depths beneath the Sub-Antarctic Front. Nature Geoscience, 2012, 5, 542-546.	12.9	26
43	Tracking bottom waters in the Southern Adriatic Sea applying seismic oceanography techniques. Continental Shelf Research, 2012, 44, 30-38.	1.8	26
44	Crustal constraint through complete model space screening for diverse geophysical datasets facilitated by emulation. Tectonophysics, 2012, 572-573, 47-63.	2.2	6
45	Mapping turbidity layers using seismic oceanography methods. Ocean Science, 2012, 8, 11-18.	3.4	19
46	Magnetic Gradient and Electrical Resistivity Tomography Surveys in Meroe, the Capital City of the Kush Kingdom, Sudan. Archaeological Prospection, 2012, 19, 59-68.	2.2	5
47	Improving the interpretability of air-gun seismic reflection data using deterministic filters: A case history from offshore Cape Leeuwin, southwest Australia. Geophysics, 2011, 76, B113-B125.	2.6	9
48	A framework for 3-D joint inversion of MT, gravity and seismic refraction data. Geophysical Journal International, 2011, 184, 477-493.	2.4	211
49	Reconstructing flood basalt lava flows in three dimensions using terrestrial laser scanning. , 2011, 7, 87-96.		18
50	Re-evaluation of the Mentelle Basin, a polyphase rifted margin basin, offshore southwest Australia: new insights from integrated regional seismic datasets. Solid Earth, 2011, 2, 107-123.	2.8	21
51	Estimating Geostrophic Shear from Seismic Images of Oceanic Structure*. Journal of Atmospheric and Oceanic Technology, 2011, 28, 1149-1154.	1.3	20
52	Some improvements in subbasalt imaging using pre-stack depth migration. Solid Earth, 2011, 2, 1-7.	2.8	5
53	Adaptive coupling strategy for simultaneous joint inversions that use petrophysical information as constraints. , 2010, , .		13
54	Emulation: A Bayesian tool for joint inversion. , 2010, , .		2

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55	Massively parallel forward modeling of scalar and tensor gravimetry data. <i>Computers and Geosciences</i> , 2010, 36, 680-686.	4.2	45
56	Stochastic Heterogeneity Mapping around a Mediterranean salt lens. <i>Ocean Science</i> , 2010, 6, 423-429.	3.4	9
57	A framework for 3D joint inversion of MT, gravity and seismic refraction data. , 2010, , .		2
58	Ocean temperature and salinity inverted from combined hydrographic and seismic data. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	65
59	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
60	Seismic reflection along the path of the Mediterranean Undercurrent. <i>Continental Shelf Research</i> , 2009, 29, 1848-1860.	1.8	31
61	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
62	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
63	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
64	Estimating movement of reflectors in the water column using seismic oceanography. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	30
65	Estimating internal wave spectra using constrained models of the dynamic ocean. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	19
66	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
67	Estimating mixing rates from seismic images of oceanic structure. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	56
68	Effect of seismic source bandwidth on reflection sections to image water structure. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	26
69	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
70	Seismic structure, gravity anomalies, and flexure of the Amazon continental margin, NE Brazil. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	56
71	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
72	Demerara Plateau - the structure and evolution of a transform passive margin. <i>Geophysical Journal International</i> , 2008, 172, 549-564.	2.4	48

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73	Internal structure of a contourite drift generated by the Antarctic Circumpolar Current. <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	2.5	38
74	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
75	Seismic oceanography: Processing data from the Rockall trough, west of Ireland. , 2007, , .		0
76	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
77	Crustal structure of the French Guiana margin, West Equatorial Atlantic. <i>Geophysical Journal International</i> , 2007, 169, 964-987.	2.4	42
78	Seismic attenuation of Atlantic margin basalts: Observations and modeling. <i>Geophysics</i> , 2006, 71, B211-B221.	2.6	42
79	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
80	Seismic reflection images of the Moho underlying melt sills at the East Pacific Rise. <i>Nature</i> , 2006, 442, 287-290.	27.8	69
81	Evidence for unusually thin oceanic crust and strong mantle beneath the Amazon Fan. <i>Geology</i> , 2006, 34, 1081.	4.4	29
82	Joint inversion of MT, gravity and seismic data applied to sub-basalt imaging. , 2006, , .		32
83	Seismic image reconstruction using complex wavelets. , 2005, 5674, 27.		2
84	Mapping and analysing virtual outcrops. <i>Visual Geosciences</i> , 2005, 10, 13-19.	0.5	57
85	Crustal structure of the NE Rockall Trough from wide-angle seismic data modeling. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	51
86	The role of Mesozoic rifting in the opening of the NE Atlantic: evidence from deep seismic profiling across the Faroe-Shetland Trough. <i>Journal of the Geological Society</i> , 2005, 162, 661-673.	2.1	14
87	Gravity Modelling Based on Small Cells. , 2005, , .		2
88	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
89	A three-dimensional study of a crustal low velocity region beneath the 9°N overlapping spreading center. <i>Geophysical Research Letters</i> , 2003, 30, .	4.0	21
90	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

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91	Modelling and processing of 3D seismic data collected over the overlapping spreading centre on the East Pacific Rise at 9° 03' N. Geological Society Special Publication, 2003, 212, 251-259.	1.3	2
92	Seismic Imaging of Lower Crustal Heterogeneity. , 2003, , 237-255.		1
93	Asymmetric melt sills and upper crustal construction beneath overlapping ridge segments: Implications for the development of melt sills and ridge crests. Geology, 2002, 30, 83.	4.4	16
94	Statistical inversion of controlled-source seismic data using parabolic wave scattering theory. Geophysical Journal International, 2002, 132, 61-78.	2.4	10
95	Three-dimensional shallow crustal emplacement at the 9°03'N overlapping spreading center on the East Pacific Rise: Correlations between magnetization and tomographic images. Journal of Geophysical Research, 2001, 106, 16101-16117.	3.3	36
96	Evidence for a thick free gas layer beneath the bottom simulating reflector in the Makran accretionary prism. Marine Geology, 2000, 164, 3-12.	2.1	82
97	Evidence from three-dimensional seismic reflectivity images for enhanced melt supply beneath mid-ocean -ridge discontinuities. Nature, 2000, 406, 614-618.	27.8	110
98	Marine source signature measurement using a reference seismic source. , 2000, , .		4
99	Modelling complex media: an introduction to the phase-screen method. Physics of the Earth and Planetary Interiors, 2000, 120, 219-225.	1.9	18
100	Deep seismic reflection profiles across the Chicxulub Crater. , 1999, , .		12
101	A comparison between airguns and explosives as wide-angle seismic sources. Geophysical Prospecting, 1999, 47, 313-339.	1.9	19
102	Preliminary results are in from mid-ocean ridge three-dimensional seismic reflection survey. Eos, 1999, 80, 181.	0.1	7
103	Ringed structural zones with deep roots formed by the Chicxulub impact. Journal of Geophysical Research, 1999, 104, 10743-10755.	3.3	35
104	The structure of the Rockall Trough imaged by deep seismic reflection profiling. Journal of the Geological Society, 1997, 154, 497-502.	2.1	38
105	Closure of the Tornquist sea: Constraints from MONA LISA deep seismic reflection data. Geology, 1997, 25, 1071-1074.	4.4	44
106	Size and morphology of the Chicxulub impact crater. Nature, 1997, 390, 472-476.	27.8	250
107	Broadband receiver response from dual-streamer data and applications in deep reflection seismology. Geophysics, 1996, 61, 232-243.	2.6	14
108	Upper mantle reflector structure and origin beneath the Scottish Caledonides. Tectonics, 1995, 14, 1351-1367.	2.8	20

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109	Structure of Atlantic Oceanic Crust Around Chron M16 from Deep Seismic Reflection Profiles. , 1995, , 183-196.		0
110	Complex structure along a Mesozoic sea-floor spreading ridge: BIRPS deep seismic reflection, Cape Verde abyssal plain. Geophysical Journal International, 1994, 119, 453-478.	2.4	21
111	Stochastic characterization and seismic response of upper and middle crustal rocks based on the Lewisian gneiss complex, Scotland. Geophysical Journal International, 1994, 119, 243-259.	2.4	42
112	Some attributes of wavefields scattered from Ivrea-type lower crust. Tectonophysics, 1994, 232, 267-279.	2.2	49
113	The crust as a heterogeneous "optical" medium, or "crocodiles in the mist". Tectonophysics, 1994, 232, 281-297.	2.2	86
114	Seismic reflection profiling in deep water: avoiding spurious reflectivity at lower-crustal and upper-mantle traveltimes. Tectonophysics, 1994, 232, 425-435.	2.2	10
115	Internal structure of a spreading segment of Mesozoic oceanic crust. Geology, 1994, 22, 597.	4.4	19
116	On the "wraparound" multiple problem of recording seismic reflections in deep water. Geophysics, 1994, 59, 1160-1165.	2.6	5
117	Lower crustal reflectivity from waveform inversion. Geophysical Journal International, 1993, 115, 410-420.	2.4	6
118	Marine seismic sources used for deep seismic reflection profiling. First Break, 1992, 10, .	0.4	8
119	Layers thicknesses in the lower crust: Modelling and spectral analysis of BIRPS data. Geodynamic Series, 1991, , 351-357.	0.1	3
120	Multiple suppression in deep water. Geodynamic Series, 1991, , 383-389.	0.1	2
121	Bending fatigue in high-strength fibre ropes. International Journal of Fatigue, 1991, 13, 174-180.	5.7	10
122	Crustal structure of the central and southern North Sea from BIRPS deep seismic reflection profiling. Journal of the Geological Society, 1991, 148, 445-457.	2.1	41
123	Seismic attenuation in the continental crust SW of England. Geophysical Journal International, 1990, 103, 533-540.	2.4	19
124	Basin-forming processes and the deep structure of the Campos Basin, offshore Brazil. Marine and Petroleum Geology, 1990, 7, 94-122.	3.3	53
125	Effective Q determination using frequency methods on BIRPS data. Tectonophysics, 1990, 173, 25-30.	2.2	28
126	Dating the source of lower crystal reflectivity using BIRPS deep Seismic profiles across the Iapetus suture. Tectonophysics, 1990, 173, 445-454.	2.2	20



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127	Labeling longâ€period multiple reflections. Geophysics, 1989, 54, 122-126.	2.6	6
128	The deep structure of northern England and the lapetus Suture zone from BIRPS deep seismic reflection profiles. Journal of the Geological Society, 1988, 145, 727-740.	2.1	122
129	Is lower crustal layering related to extension?. Geophysical Journal International, 1987, 89, 239-242.	2.4	15
130	Seismic Imaging Using Complex Wavelets. , 0, , .		5
131	Expedition 369 summary. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	6
132	Expedition 369 methods. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	15
133	Site U1512. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	7
134	Site U1513. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	12
135	Site U1514. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	5
136	Site U1515. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	4
137	Site U1516. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	7