Bruce M Howe

List of Publications by Year
in descending order

103 papers	3,846 citations	159585 30 h-index	133252 59 g-index
146 all docs	146 docs citations	146 times ranked	2809 citing authors

#	Article	IF	Citations
1	Ocean ambient sound: Comparing the 1960s with the 1990s for a receiver off the California coast. Acoustics Research Letters Online: ARLO, 2002, 3, 65-70.	0.7	325
2	Global Assimilation of Ionospheric Measurements (GAIM). Radio Science, 2004, 39, n/a-n/a.	1.6	309
3	A test of basin-scale acoustic thermometry using a large-aperture vertical array at 3250-km range in the eastern North Pacific Ocean. Journal of the Acoustical Society of America, 1999, 105, 3185-3201.	1.1	204
4	Barotropic and Baroclinic Tides in the Central North Pacific Ocean Determined from Long-Range Reciprocal Acoustic Transmissions. Journal of Physical Oceanography, 1995, 25, 631-647.	1.7	184
5	Global Observing Needs in the Deep Ocean. Frontiers in Marine Science, 2019, 6, .	2.5	166
6	Application of stochastic inverse theory to ionospheric tomography. Radio Science, 1992, 27, 721-732.	1.6	148
7	Ocean acoustic tomography: Mesoscale velocity. Journal of Geophysical Research, 1987, 92, 3785-3805.	3.3	120
8	Tomography of the ionosphere: Four-dimensional simulations. Radio Science, 1998, 33, 109-128.	1.6	120
9	On equations for the speed of sound in seawater. Journal of the Acoustical Society of America, 1993, 93, 255-275.	1.1	119
10	Long-time trends in ship traffic noise for four sites off the North American West Coast. Journal of the Acoustical Society of America, 2011, 129, 642-651.	1.1	118
11	Comparisons of measured and predicted acoustic fluctuations for a 3250-km propagation experiment in the eastern North Pacific Ocean. Journal of the Acoustical Society of America, 1999, 105, 3202-3218.	1.1	98
12	Low-frequency ambient sound in the North Pacific: Long time series observations. Journal of the Acoustical Society of America, 1999, 106, 3189-3200.	1.1	86
13	Measured waveâ€front fluctuations in 1000â€km pulse propagation in the Pacific Ocean. Journal of the Acoustical Society of America, 1992, 92, 939-955.	1.1	80
14	SMART Cables for Observing the Global Ocean: Science and Implementation. Frontiers in Marine Science, 2019, 6, .	2.5	73
15	The North Pacific Acoustic Laboratory deep-water acoustic propagation experiments in the Philippine Sea. Journal of the Acoustical Society of America, 2013, 134, 3359-3375.	1.1	72
16	Observing the Oceans Acoustically. Frontiers in Marine Science, 2019, 6, .	2.5	69
17	Passive and active acoustics using an autonomous wave glider. Journal of Field Robotics, 2012, 29, 911-923.	6.0	67
18	Multimegameter-range acoustic data obtained by bottom-mounted hydrophone arrays for measurement of ocean temperature. IEEE Journal of Oceanic Engineering, 1999, 24, 202-214.	3.8	65

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19	A TOPEX/POSEIDON global tidal model (TPXO.2) and barotropic tidal currents determined from long-range acoustic transmissions. Progress in Oceanography, 1997, 40, 337-367.	3.2	61
20	Power system considerations for undersea observatories. IEEE Journal of Oceanic Engineering, 2002, 27, 267-274.	3.8	61
21	Diversity-based acoustic communication with a glider in deep water. Journal of the Acoustical Society of America, 2014, 135, 1023-1026.	1.1	59
22	Reciprocal acoustic transmissions: Instrumentation for Mesoscale monitoring of ocean currents. IEEE Journal of Oceanic Engineering, 1985, 10, 123-137.	3.8	58
23	A comparison of measured and predicted broadband acoustic arrival patterns in travel timeâ€“depth coordinates at 1000â€km range. Journal of the Acoustical Society of America, 1994, 95, 3118-3128.	1.1	54
24	A decade of acoustic thermometry in the North Pacific Ocean. Journal of Geophysical Research, 2009, 114, .	3.3	52
25	LOAPEX: The Long-Range Ocean Acoustic Propagation EXperiment. IEEE Journal of Oceanic Engineering, 2009, 34, 1-11.	3.8	45
26	A Smart Sensor Web for Ocean Observation: Fixed and Mobile Platforms, Integrated Acoustics, Satellites and Predictive Modeling. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2010, 3, 507-521.	4.9	40
27	Mode coherence at megameter ranges in the North Pacific Ocean. Journal of the Acoustical Society of America, 2005, 117, 1565-1581.	1.1	39
28	A review of recent results on ocean acoustic wave propagation in random media: basin scales. IEEE Journal of Oceanic Engineering, 1999, 24, 138-155.	3.8	38
29	NEPTUNE: Real-Time Ocean and Earth Sciences at the Scale of a Tectonic Plate. Oceanography, 2000, 13, 71-79.	1.0	38
30	Including Whale Call Detection in Standard Ocean Measurements: Application of Acoustic Seagliders. Marine Technology Society Journal, 2007, 41, 53-57.	0.4	32
31	North East Pacific Time-Integrated Undersea Networked Experiments (NEPTUNE): Cable Switching and Protection. IEEE Journal of Oceanic Engineering, 2005, 30, 232-240.	3.8	31
32	Barotropic currents and vorticity in the central North Pacific Ocean during summer 1987 determined from long-range reciprocal acoustic transmissions. Journal of Geophysical Research, 1994, 99, 3263.	3.3	30
33	High spatial resolution in vertical slice ocean acoustic tomography. Journal of Geophysical Research, 1987, 92, 11680-11692.	3.3	29
34	Estimating uncertainty in subsurface glider position using transmissions from fixed acoustic tomography sources. Journal of the Acoustical Society of America, 2013, 134, 3260-3271.	1.1	29
35	Ocean mixing studied near Hawaiian Ridge. Eos, 2000, 81, 545.	0.1	27
36	Variability of Heat Content in the Central North Pacific in Summer 1987 Determined from Long-Range Acoustic Transmissions. Journal of Physical Oceanography, 1993, 23, 2650-2666.	1.7	26

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37	A numerical model for ocean ultra-low frequency noise: Wave-generated acoustic-gravity and Rayleigh modes. Journal of the Acoustical Society of America, 2013, 134, 3242-3259.	1.1	26
38	Ocean acoustic tomography at 1000â€km range using wavefronts measured with a largeâ€aperture vertical array. Journal of Geophysical Research, 1993, 98, 16365-16377.	3.3	25
39	A status report on applying discrete inverse theory to ionospheric tomography. International Journal of Imaging Systems and Technology, 1994, 5, 97-105.	4.1	25
40	Analysis of multipath acoustic field variability and coherence in the finale of broadband basin-scale transmissions in the North Pacific Ocean. Journal of the Acoustical Society of America, 2005, 117, 1538-1564.	1.1	25
41	Fault Location for the NEPTUNE Power System. IEEE Transactions on Power Systems, 2007, 22, 522-531.	6.5	25
42	Comparison of Profiles and Fluxes of Heat and Momentum Above and Below an Air-Water Interface. Journal of Heat Transfer, 1982, 104, 34-39.	2.1	24
43	Horizontal refraction of acoustic signals retrieved from North Pacific Acoustic Laboratory billboard array data. Journal of the Acoustical Society of America, 2005, 117, 1527-1537.	1.1	24
44	Statistics and vertical directionality of low-frequency ambient noise at the North Pacific Acoustics Laboratory site. Journal of the Acoustical Society of America, 2005, 117, 1643-1665.	1.1	22
45	Measuring the Kuroshio Current with ocean acoustic tomography. Journal of the Acoustical Society of America, 2013, 134, 3272-3281.	1.1	19
46	Actively Controllable Switching for Tree Topology Seafloor Observation Networks. IEEE Journal of Oceanic Engineering, 2015, 40, 993-1002.	3.8	19
47	Localization and Subsurface Position Error Estimation of Gliders Using Broadband Acoustic Signals at Long Range. IEEE Journal of Oceanic Engineering, 2016, 41, 501-508.	3.8	19
48	Acoustic Sensing for Ocean Research. Marine Technology Society Journal, 2004, 38, 144-154.	0.4	18
49	Acoustic measurements of internal wave rms displacement and rms horizontal current off Bermuda in late 1983. Journal of Geophysical Research, 1986, 91, 7721-7732.	3.3	17
50	ALOHA cabled observatory installation. , 2011, , .		17
51	The effect of bottom interaction on transmissions from the North Pacific Acoustic Laboratory Kauai source. Journal of the Acoustical Society of America, 2005, 117, 1624-1634.	1.1	16
52	Modal analysis of the range evolution of broadband wavefields in the North Pacific Ocean: Low mode numbers. Journal of the Acoustical Society of America, 2012, 131, 4409-4427.	1.1	16
53	Acoustic measurement of the net transport through the Seto Inland Sea. Acoustical Science and Technology, 2016, 37, 10-20.	0.5	15
54	Deep seafloor arrivals: An unexplained set of arrivals in long-range ocean acoustic propagation. Journal of the Acoustical Society of America, 2009, 126, 599-606.	1.1	14

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55	Topology Error Identification for the NEPTUNE Power System. IEEE Transactions on Power Systems, 2005, 20, 1224-1232.	6.5	13
56	Evaluation of a Long-Range Joint Acoustic Navigation / Thermometry System. , 2006, , .		13
57	A Seaglider-Integrated Digital Monitor for Bioacoustic Sensing. IEEE Journal of Oceanic Engineering, 2017, 42, 800-807.	3.8	13
58	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
59	Multiple receivers in single vertical slice ocean acoustic tomography experiments. Journal of Geophysical Research, 1987, 92, 9479-9486.	3.3	12
60	Transverse horizontal spatial coherence of deep arrivals at megameter ranges. Journal of the Acoustical Society of America, 2005, 117, 1511-1526.	1.1	12
61	Moored observations of episodic abyssal flow and mixing at station ALOHA. Geophysical Research Letters, 2011, 38, .	4.0	11
62	Observations and transport theory analysis of low frequency, acoustic mode propagation in the Eastern North Pacific Ocean. Journal of the Acoustical Society of America, 2013, 134, 3144-3160.	1.1	11
63	Real-Time Offshore Coastal Acoustic Tomography Enabled With Mirror-Transpond Functionality. IEEE Journal of Oceanic Engineering, 2020, 45, 645-655.	3.8	10
64	Temperature-driven seasonal and longer term changes in spatially averaged deep ocean ambient sound at frequencies 63â€“125â€‰Hz. Journal of the Acoustical Society of America, 2021, 149, 2531-2545.	1.1	10
65	Estimating Range-Dependent Evaporation Duct Height. Journal of Atmospheric and Oceanic Technology, 2017, 34, 1113-1123.	1.3	9
66	Variation of Residual Current in the Seto Inland Sea Driven by Sea Level Difference Between the Bungo and Kii Channels. Journal of Geophysical Research: Oceans, 2018, 123, 2921-2933.	2.6	9
67	Gyre-Scale Reciprocal Acoustic Transmissions. , 1991, , 119-134.		9
68	Deep seafloor arrivals in long range ocean acoustic propagation. Journal of the Acoustical Society of America, 2013, 134, 3307-3317.	1.1	8
69	Bottom interacting sound at 50â€‰km range in a deep ocean environment. Journal of the Acoustical Society of America, 2012, 132, 2224-2231.	1.1	7
70	Weakly dispersive modal pulse propagation in the North Pacific Ocean. Journal of the Acoustical Society of America, 2013, 134, 3386-3394.	1.1	7
71	The ALOHA cabled observatory. , 2015, , 439-463.		7
72	The Deep Ocean Observing Strategy: Addressing Global Challenges in the Deep Sea Through Collaboration. Marine Technology Society Journal, 2022, 56, 50-66.	0.4	7

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73	Deep-sea moorings in a tidal current. Deep-sea Research Part A, Oceanographic Research Papers, 1988, 35, 111-119.	1.5	6
74	The interference component of the acoustic field corresponding to the Long-Range Ocean Acoustic Propagation Experiment. Journal of the Acoustical Society of America, 2009, 125, 1919-1929.	1.1	6
75	Slice89: A Single Slice Tomography Experiment. , 1991, , 81-86.		6
76	Commercial Underwater Cable Systems Could Reduce Disaster Impact. Eos, 2017, , .	0.1	6
77	Nonperturbative ocean acoustic tomography inversion of 1000â€km pulse propagation in the Pacific Ocean. Journal of the Acoustical Society of America, 1994, 96, 3054-3063.	1.1	5
78	Sensor Network Infrastructure: Moorings, Mobile Platforms, and Integrated Acoustics. , 2007, , .		5
79	Temporal and vertical scales of acoustic fluctuations for 75-Hz, broadband transmissions to 87-km range in the eastern North Pacific Ocean. Journal of the Acoustical Society of America, 2009, 126, 1069-1083.	1.1	5
80	An Inductive Charging and Real-Time Communications System for Profiling Moorings. Journal of Atmospheric and Oceanic Technology, 2015, 32, 2243-2252.	1.3	5
81	NEPTUNE power system: startup power supply for 10 kV to 400 V Dc-Dc converters. , 2006, , .		4
82	Barotropic Rossby wave radiation from a model Gulf Stream. Geophysical Research Letters, 2007, 34, .	4.0	4
83	Reduced rank models for travel time estimation of low order mode pulses. Journal of the Acoustical Society of America, 2013, 134, 3332-3346.	1.1	4
84	Underwater Time-Gated Standoff Raman Sensor for In Situ Chemical Sensing. Applied Spectroscopy, 2021, 75, 739-746.	2.2	4
85	Scientific Monitoring And Reliable Telecommunications (SMART) Cable Systems: Integration of Sensors into Telecommunications Repeaters. , 2018, , .		3
86	Long-time trends in low-frequency traffic noise for four sites off the North American west coast.. Journal of the Acoustical Society of America, 2010, 127, 1783-1783.	1.1	3
87	A Numerical Study of SMART Cables Potential in Marine Hazard Early Warning for the Sumatra and Java Regions. Pure and Applied Geophysics, 0, , 1.	1.9	3
88	Optimization Based Load Management for the NEPTUNE Power System. IEEE Power Engineering Society General Meeting, 2007, , .	0.0	2
89	Ship-Suspended Acoustical Transmitter Position Estimation and Motion Compensation. IEEE Journal of Oceanic Engineering, 2010, 35, 797-810.	3.8	2
90	A Deep Cabled Observatory: Biology and Physics in the Abyss. Eos, 2014, 95, 429-430.	0.1	2

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91	Envisioning a Global Multi-Purpose Ocean Acoustic Network. Marine Technology Society Journal, 2021, 55, 78-79.	0.4	2
92	NEPTUNE Power System: Science Node Converter Startup Operations Design and Implementation Circuit. , 2006, , .		1
93	Acoustic Systems for Global Observatory Studies. , 2006, , .		1
94	Acoustic Seagliders in PhilSea10: Preliminary results. , 2011, , .		1
95	Listening for Whales at the Station ALOHA Cabled Observatory. Modern Acoustics and Signal Processing, 2016, , 221-237.	0.8	1
96	Submarine Cable Systems for Future Societal Needs. Eos, 2016, 97, .	0.1	1
97	Deep seafloor arrivals: Scattering or multi-path from ocean thermal structure?. Journal of the Acoustical Society of America, 2009, 126, 2159.	1.1	1
98	Deep Trouble! Common Problems for Ocean Observatories. Eos, 2017, , .	0.1	1
99	SMART Cables Observing the Oceans and Earth. , 2021, , .		1
100	Towards subsurface positioning of gliders using fixed acoustic tomography sources. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
101	SMART Subsea Cables for Observing the Ocean and Earth. Marine Technology Society Journal, 2021, 55, 62-63.	0.4	0
102	Oceanographic Measurements. , 2007, , 1179-1217.		0
103	Automated matching of measured long-range acoustic arrivals from autonomous gliders with acoustic predictions. Journal of the Acoustical Society of America, 2020, 148, 2663-2663.	1.1	0