Michael A Ainslie

List of Publications by Year
in descending order

98 papers	1,815 citations	20 h-index	37 g-index
127 all docs	127 docs citations	127 times ranked	1297 citing authors

361045

329751

#	Article	IF	Citations
1	A simplified formula for viscous and chemical absorption in sea water. Journal of the Acoustical Society of America, 1998, 103, 1671-1672.	0.5	291
2	Principles of Sonar Performance Modelling. , 2010, , .		209
3	Review of scattering and extinction cross-sections, damping factors, and resonance frequencies of a spherical gas bubble. Journal of the Acoustical Society of America, 2011, 130, 3184-3208.	0.5	180
4	Dose-response relationships for the onset of avoidance of sonar by free-ranging killer whales. Journal of the Acoustical Society of America, 2014, 135, 975-993.	0.5	78
5	Validation of finite element computations for the quantitative prediction of underwater noise from impact pile driving. Journal of the Acoustical Society of America, 2013, 133, 72-81.	0.5	69
6	Effect of wind-generated bubbles on fixed range acoustic attenuation in shallow water at 1â€“4kHz. Journal of the Acoustical Society of America, 2005, 118, 3513-3523.	0.5	45
7	Near resonant bubble acoustic cross-section corrections, including examples from oceanography, volcanology, and biomedical ultrasound. Journal of the Acoustical Society of America, 2009, 126, 2163-2175.	0.5	45
8	Source specific sound mapping: Spatial, temporal and spectral distribution of sound in the Dutch North Sea. Environmental Pollution, 2019, 247, 1143-1157.	3.7	45
9	Assessing the Impact of Underwater Clearance of Unexploded Ordnance on Harbour Porpoises (Phocoena phocoena) in the Southern North Sea. Aquatic Mammals, 2015, 41, 503-523.	0.4	40
10	Populationâ€level consequences of seismic surveys on fishes: An interdisciplinary challenge. Fish and Fisheries, 2019, 20, 653-685.	2.7	38
11	Simulation of an Underwater Acoustic Communication Channel Characterized by Wind-Generated Surface Waves and Bubbles. IEEE Journal of Oceanic Engineering, 2013, 38, 642-654.	2.1	35
12	Energyâ€conserving reflection and transmission coefficients for a solidâ€“solid boundary. Journal of the Acoustical Society of America, 1995, 98, 2836-2840.	0.5	31
13	COMPILEâ€"A Generic Benchmark Case for Predictions of Marine Pile-Driving Noise. IEEE Journal of Oceanic Engineering, 2016, 41, 1061-1071.	2.1	31
14	A depth-dependent formula for shallow water propagation. Journal of the Acoustical Society of America, 2014, 136, 573-582.	0.5	29
15	Planeâ€wave reflection and transmission coefficients for a threeâ€layered elastic medium. Journal of the Acoustical Society of America, 1995, 97, 954-961.	0.5	28
16	Reflection and transmission coefficients for a layered fluid sediment overlying a uniform solid substrate. Journal of the Acoustical Society of America, 1996, 99, 893-902.	0.5	26
17	Effects of a seismic survey on movement of free-ranging Atlantic cod. Current Biology, 2021, 31, 1555-1562.e4.	1.8	25
18	Mean grain size mapping with single-beam echo sounders. Journal of the Acoustical Society of America, 2006, 120, 2555-2566.	0.5	23

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19	A Simple and Accurate Formula for the Absorption of Sound in Seawater. IEEE Journal of Oceanic Engineering, 2009, 34, 610-616.	2.1	23
20	Temporary hearing threshold shift in a harbor porpoise (<i>Phocoena phocoena</i>) after exposure to multiple airgun sounds. Journal of the Acoustical Society of America, 2017, 142, 2430-2442.	0.5	22
21	Changes in 63Hz third-octave band sound levels over 42months recorded at four deep-ocean observatories. Journal of Marine Systems, 2014, 130, 4-11.	0.9	21
22	Application of kurtosis to underwater sound. Journal of the Acoustical Society of America, 2020, 148, 780-792.	0.5	20
23	Detection of Blainvilleâ€™s beaked whales with towed arrays. Applied Acoustics, 2010, 71, 1027-1035.	1.7	19
24	Pile driving acoustics made simple: Damped cylindrical spreading model. Journal of the Acoustical Society of America, 2018, 143, 310-317.	0.5	19
25	Observable parameters from multipath bottom reverberation in shallow water. Journal of the Acoustical Society of America, 2007, 121, 3363.	0.5	17
26	How effectively do horizontal and vertical response strategies of long-finned pilot whales reduce sound exposure from naval sonar?. Marine Environmental Research, 2015, 106, 68-81.	1.1	17
27	The effect of wind-generated bubbles on sea-surface backscattering at 940 Hz. Journal of the Acoustical Society of America, 2011, 130, 3413-3420.	0.5	16
28	A Terminology Standard for Underwater Acoustics and the Benefits of International Standardization. IEEE Journal of Oceanic Engineering, 2022, 47, 179-200.	2.1	16
29	A Multivariate Correlation Analysis of High- Frequency Bottom Backscattering Strength Measurements With Geotechnical Parameters. IEEE Journal of Oceanic Engineering, 2007, 32, 640-650.	2.1	14
30	Verification of airgun sound field models for environmental impact assessment. Proceedings of Meetings on Acoustics, 2016, , .	0.3	13
31	Application of damped cylindrical spreading to assess range to injury threshold for fishes from impact pile driving. Journal of the Acoustical Society of America, 2020, 148, 108-121.	0.5	13
32	Impact of naval sonar signals on Atlantic herring (Clupea harengus) during summer feeding. ICES Journal of Marine Science, 2012, 69, 1078-1085.	1.2	12
33	Neglect of bandwidth of Odontocetes echo location clicks biases propagation loss and single hydrophone population estimates. Journal of the Acoustical Society of America, 2013, 134, 3506-3512.	0.5	12
34	Modeling Effectiveness of Gradual Increases in Source Level to Mitigate Effects of Sonar on Marine Mammals. Conservation Biology, 2014, 28, 119-128.	2.4	12
35	Potential for population-level disturbance by active sonar in herring. ICES Journal of Marine Science, 2015, 72, 558-567.	1.2	11
36	The effect of sound speed profile on shallow water shipping sound maps. Journal of the Acoustical Society of America, 2016, 140, EL84-EL88.	0.5	11

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37	Fixed time versus fixed range reverberation calculation: Analytical solution. Journal of the Acoustical Society of America, 2010, 128, 28-38.	0.5	10
38	Modelling the broadband propagation of marine mammal echolocation clicks for click-based population density estimates. Journal of the Acoustical Society of America, 2018, 143, 954-967.	0.5	10
39	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.	0.5	10
40	International harmonization of procedures for measuring and analyzing of vessel underwater radiated noise. Marine Pollution Bulletin, 2022, 174, 113124.	2.3	10
41	Numerical and laboratory modeling of propagation over troughs and ridges. Journal of the Acoustical Society of America, 1993, 94, 2287-2295.	0.5	9
42	Fast and explicit Wentzelâ€“Kramersâ€“Brillouin mode sum for the bottom-interacting field, including leaky modes. Journal of the Acoustical Society of America, 1998, 103, 1804-1812.	0.5	9
43	Analytical and Numerical Propagation Loss Predictions for Gradually Range-Dependent Isospeed Waveguides. IEEE Journal of Oceanic Engineering, 2019, 44, 1240-1252.	2.1	9
44	â€œTransmission lossâ€•and â€œpropagation lossâ€•in undersea acoustics. Journal of the Acoustical Society of America, 2005, 118, 603-604.	0.5	8
45	Definition and results of test cases for shipping sound maps. , 2015, , .		8
46	Sources of Underwater Sound and Their Characterization. Advances in Experimental Medicine and Biology, 2016, 875, 27-35.	0.8	8
47	Stationary phase evaluation of the bottom interacting field in isovelocity water. Journal of the Acoustical Society of America, 1993, 94, 1496-1509.	0.5	7
48	Conditions for the excitation of interface waves in a thin unconsolidated sediment layer. Journal of Sound and Vibration, 2003, 268, 249-267.	2.1	7
49	The European Marine Strategy: Noise Monitoring in European Marine Waters from 2014. Advances in Experimental Medicine and Biology, 2016, 875, 205-215.	0.8	7
50	International Airgun Modeling Workshop: Validation of Source Signature and Sound Propagation Modelsâ€”Dublin (Ireland), JulyÂ16, 2016â€”Problem Description. IEEE Journal of Oceanic Engineering, 2019, 44, 565-574.	2.1	7
51	Mapping Underwater Sound in the Dutch Part of the North Sea. Advances in Experimental Medicine and Biology, 2016, 875, 1001-1006.	0.8	7
52	The sonar equation and the definitions of propagation loss. Journal of the Acoustical Society of America, 2004, 115, 131-134.	0.5	6
53	Simulation of an underwater acoustic communication channel characterized by wind-generated surface waves and bubbles. Proceedings of Meetings on Acoustics, 2012, , .	0.3	6
54	Sonar equations for planetary exploration. Journal of the Acoustical Society of America, 2016, 140, 1400-1419.	0.5	6

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55	Low frequency bottom reverberation in a Pekeris waveguide with Lambertâ€™s rule. Journal of Computational Acoustics, 2016, 24, 1650001.	1.0	6
56	Modeling potential masking of echolocating sperm whales exposed to continuous 1â€“2â€‰kHz naval sonar. Journal of the Acoustical Society of America, 2021, 149, 2908-2925.	0.5	6
57	Characterization of the acoustic output of single marine-seismic airguns and clusters: The Svein Vaage dataset. Journal of the Acoustical Society of America, 2021, 150, 3675-3692.	0.5	6
58	Benchmark solutions of plane wave bottom reflection loss. Journal of the Acoustical Society of America, 1998, 104, 3305-3312.	0.5	5
59	Caustic envelopes and cusp coordinates due to the reflection of a spherical wave from a layered sediment. Journal of the Acoustical Society of America, 2004, 115, 1449-1459.	0.5	5
60	Echo and reverberation in a Pekeris waveguide by convolution and by the product rule. Journal of the Acoustical Society of America, 2013, 133, 1335-1346.	0.5	5
61	Modeling Acoustical Pressure and Particle Acceleration Close to Marine Seismic Airguns and Airgun Arrays. IEEE Journal of Oceanic Engineering, 2019, 44, 611-620.	2.1	5
62	What is the Source Level of Pile-Driving Noise in Water?. Advances in Experimental Medicine and Biology, 2012, 730, 445-448.	0.8	4
63	Summary Report Panel 1: The Need for Protocols and Standards in Research on Underwater Noise Impacts on Marine Life. Advances in Experimental Medicine and Biology, 2016, 875, 1265-1271.	0.8	4
64	Caustics and beam displacements due to the reflection of spherical waves from a layered halfâ€space. Journal of the Acoustical Society of America, 1994, 96, 2506-2515.	0.5	3
65	DEDUCTIVE MULTI-TONE INVERSION OF SEABED PARAMETERS. Journal of Computational Acoustics, 2000, 08, 271-284.	1.0	3
66	Improved Active Sonar Tactical Support by Through-the-Sensor Estimation of Acoustic Seabed Properties. IEEE Journal of Oceanic Engineering, 2014, 39, 755-768.	2.1	3
67	Echo, Reverberation, and Echo-to-Reverberation Ratio for a Short Pulse in a Range-Dependent Pekeris Waveguide. IEEE Journal of Oceanic Engineering, 2017, 42, 362-372.	2.1	3
68	Guest Editorial Special Issue on Verification and Validation of Air Gun Source Signature and Sound Propagation Models. IEEE Journal of Oceanic Engineering, 2019, 44, 551-559.	2.1	3
69	Predicting acoustic dose associated with marine mammal behavioural responses to sound as detected with fixed acoustic recorders and satellite tags. Journal of the Acoustical Society of America, 2019, 145, 1401-1416.	0.5	3
70	Optimal soft start and shutdown procedures or stationary or moving sound sources. Proceedings of Meetings on Acoustics, 2013, , .	0.3	3
71	Experimental study of sound propagation in modelled shallow-water environments. Ultrasonics, 1994, 32, 141-147.	2.1	2
72	Broadband Geoacoustic Deduction. Journal of Computational Acoustics, 1998, 06, 45-59.	1.0	2

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73	The Dependence of Fusion Gain on Signal-Amplitude Distributions and Position Errors. IEEE Journal of Oceanic Engineering, 2008, 33, 266-277.	2.1	2
74	Measuring ship acoustic signatures against mine threat. Proceedings of Meetings on Acoustics, 2012, , .	0.3	2
75	Potential causes of increasing low frequency ocean noise levels. Proceedings of Meetings on Acoustics, 2012, , .	0.3	2
76	Insights into the calculation of metrics for transient sounds in shallow water. Proceedings of Meetings on Acoustics, 2013, , .	0.3	2
77	The Weston Memorial workshop: progress to date on low frequency active sonar scenarios. Proceedings of Meetings on Acoustics, 2013, , .	0.3	2
78	Acoustical measurement, processing, reporting and terminology standards for underwater risk assessment. Proceedings of Meetings on Acoustics, 2017, , .	0.3	2
79	Bayesian reverberation inversion incorporating grain-size dependent regression relations as a priori information. Proceedings of Meetings on Acoustics, 2012, , .	0.3	1
80	Assessing the Effectiveness of Ramp-Up During Sonar Operations Using Exposure Models. Advances in Experimental Medicine and Biology, 2016, 875, 1197-1203.	0.8	1
81	Guest Editorial: The International Airgun Modeling Workshop. IEEE Journal of Oceanic Engineering, 2019, 44, 560-564.	2.1	1
82	The contribution of shipping sound to the dutch underwater soundscape: Past, present, future. Proceedings of Meetings on Acoustics, 2019, , .	0.3	1
83	Offshore Dredger Sounds: Source Levels, Sound Maps, and Risk Assessment. Advances in Experimental Medicine and Biology, 2016, 875, 189-196.	0.8	1
84	Propagation of underwater sound. , 2009, , 439-512.		1
85	The Influence of Sediment Rigidity on the Plane-Wave Reflection Coefficient. , 1991, , 447-454.		1
86	Comments on â€œUltrasonic interferences in polymer platesâ€•[J. Acoust. Soc. Am. 104, 1232â€"1241 (1998)]. Journal of the Acoustical Society of America, 1999, 106, 3034-3035.	0.5	0
87	Obituaries: David E. Westonâ€‚â€¢â€‚1929â€"2001. Journal of the Acoustical Society of America, 2001, 110, 647-647.	0.5	0
88	Controlled Sonar Exposure Experiments on Cetaceans in Norwegian Waters: Overview of the 3S-Project. Advances in Experimental Medicine and Biology, 2016, 875, 589-598.	0.8	0
89	The sonar equations revisited. , 2009, , 573-633.		0
90	Underwater acoustics. , 2009, , 191-249.		0

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91	Sonar oceanography. , 2009, , 125-190.		0
92	Sources and scatterers of sound. , 2009, , 361-438.		0
93	Assessment of Cumulative Sound Exposure Levels for Marine Piling Events. Advances in Experimental Medicine and Biology, 2012, 730, 453-457.	0.8	0
94	Assessing the environmental risks of marine seismic surveying: latest insights from sonar. , 2015, , .		0
95	Potential Population Consequences of Active Sonar Disturbance in Atlantic Herring: Estimating the Maximum Risk. Advances in Experimental Medicine and Biology, 2016, 875, 217-222.	0.8	0
96	Development of a Model to Assess Masking Potential for Marine Mammals by the Use of Air Guns in Antarctic Waters. Advances in Experimental Medicine and Biology, 2016, 875, 1243-1249.	0.8	0
97	Behavioral Responses of Harbor Porpoises (Phocoena phocoena) to Sonar Playback Sequences of Sweeps and Tones (3.5-4.1 kHz). Aquatic Mammals, 2018, 44, 389-404.	0.4	0
98	Behavioral Responses of Harbor Porpoises (Phocoena phocoena) to U.S. Navy 53C Sonar Signals in Noise. Aquatic Mammals, 2019, 45, 359-366.	0.4	0