

Preston S Wilson

List of Publications by Year in descending order

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Version: 2024-02-01

94
papers

1,093
citations

471061

17
h-index

476904

29
g-index

104
all docs

104
docs citations

104
times ranked

788
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental evidence of Willis coupling in a one-dimensional effective material element. <i>Nature Communications</i> , 2017, 8, 15625.	5.8	103
2	Broadband focusing of underwater sound using a transparent pentamode lens. <i>Journal of the Acoustical Society of America</i> , 2017, 141, 4408-4417.	0.5	85
3	Laboratory investigation of the acoustic response of seagrass tissue in the frequency band 0.5–2.5 kHz. <i>Journal of the Acoustical Society of America</i> , 2009, 125, 1951-1959.	0.5	78
4	Phase speed and attenuation in bubbly liquids inferred from impedance measurements near the individual bubble resonance frequency. <i>Journal of the Acoustical Society of America</i> , 2005, 117, 1895-1910.	0.5	52
5	Guest Editorial An Overview of the Seabed Characterization Experiment. <i>IEEE Journal of Oceanic Engineering</i> , 2020, 45, 1-13.	2.1	50
6	Stratigraphic analysis of a sediment pond within the New England Mud Patch: New constraints from high-resolution chirp acoustic reflection data. <i>Marine Geology</i> , 2019, 412, 81-94.	0.9	37
7	An improved water-filled impedance tube. <i>Journal of the Acoustical Society of America</i> , 2003, 113, 3245.	0.5	35
8	Crossmodal Comparisons of Signal Components Allow for Relative-Distance Assessment. <i>Current Biology</i> , 2014, 24, 1751-1755.	1.8	35
9	<i>In Situ</i> Measurements of Compressional Wave Speed During Gravity Coring Operations in the New England Mud Patch. <i>IEEE Journal of Oceanic Engineering</i> , 2020, 45, 26-38.	2.1	34
10	Sound propagation in water containing large tethered spherical encapsulated gas bubbles with resonance frequencies in the 50 Hz to 100 Hz range. <i>Journal of the Acoustical Society of America</i> , 2011, 130, 3325-3332.	0.5	32
11	Maximum Entropy Derived Statistics of Sound-Speed Structure in a Fine-Grained Sediment Inferred From Sparse Broadband Acoustic Measurements on the New England Continental Shelf. <i>IEEE Journal of Oceanic Engineering</i> , 2020, 45, 161-173.	2.1	30
12	The Airy phase of explosive sounds in shallow water. <i>Journal of the Acoustical Society of America</i> , 2018, 143, EL199-EL205.	0.5	26
13	Seagrass leaves in 3-D: Using computed tomography and low-frequency acoustics to investigate the material properties of seagrass tissue. <i>Journal of Experimental Marine Biology and Ecology</i> , 2010, 395, 128-134.	0.7	24
14	Experimental investigation of the combustive sound source. <i>IEEE Journal of Oceanic Engineering</i> , 1995, 20, 311-320.	2.1	20
15	Broadband Waveform Geoacoustic Inversions With Absolute Travel Time. <i>IEEE Journal of Oceanic Engineering</i> , 2020, 45, 174-188.	2.1	20
16	An acoustic investigation of seagrass photosynthesis. <i>Marine Biology</i> , 2012, 159, 2311-2322.	0.7	19
17	Evidence of dispersion in an artificial water-saturated sand sediment. <i>Journal of the Acoustical Society of America</i> , 2007, 121, 824-832.	0.5	17
18	<i>In situ</i> measurements of sediment acoustic properties in Currituck Sound and comparison to models. <i>Journal of the Acoustical Society of America</i> , 2016, 140, 3593-3606.	0.5	17

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19	Estimates of Low-Frequency Sound Speed and Attenuation in a Surface Mud Layer Using Low-Order Modes. IEEE Journal of Oceanic Engineering, 2020, 45, 201-211.	2.1	15
20	Design and characterization of a three-dimensional anisotropic additively manufactured pentamode material. Journal of the Acoustical Society of America, 2022, 151, 168-179.	0.5	15
21	Ontogenetic change in predicted acoustic pressure sensitivity in larval red drum (<i>Sciaenops ocellatus</i>). Journal of the Acoustical Society of America, 2022, 151, 1000-1014.	0.8	14
22	Coffee roasting acoustics. Journal of the Acoustical Society of America, 2014, 135, EL265-EL269.	0.5	13
23	Short-Range Signatures of Explosive Sounds in Shallow Water Used for Seabed Characterization. IEEE Journal of Oceanic Engineering, 2020, 45, 14-25.	2.1	13
24	Attenuation of standing waves in a large water tank using arrays of large tethered encapsulated bubbles. Journal of the Acoustical Society of America, 2014, 135, 1700-1708.	0.5	12
25	Sound speed and attenuation measurements within a seagrass meadow from the water column into the seabed. Journal of the Acoustical Society of America, 2017, 141, EL402-EL406.	0.5	12
26	Radiation damping of, and scattering from, an arbitrarily shaped bubble. Journal of the Acoustical Society of America, 2017, 142, 160-166.	0.5	12
27	An investigation of the combustive sound source. Proceedings of Meetings on Acoustics, 2010, , .	0.3	11
28	The low-frequency sound speed of fluid-like gas-bearing sediments. Journal of the Acoustical Society of America, 2008, 123, EL99-EL104.	0.5	10
29	Subwavelength acoustic metamaterial panels for underwater noise isolation. Journal of the Acoustical Society of America, 2015, 138, EL254-EL257.	0.5	10
30	An impulsive source with variable output and stable bandwidth for underwater acoustic experiments. Journal of the Acoustical Society of America, 2014, 136, EL8-EL12.	0.5	9
31	Transdimensional Inversion on the New England Mud Patch Using High-Order Modes. IEEE Journal of Oceanic Engineering, 2022, 47, 607-619.	2.1	9
32	Passive Acoustic Glider for Seabed Characterization at the New England Mud Patch. IEEE Journal of Oceanic Engineering, 2022, 47, 541-552.	2.1	9
33	Low-frequency dispersion in bubbly liquids. Acoustics Research Letters Online: ARLO, 2005, 6, 188-194.	0.7	8
34	Sound speed in water-saturated glass beads as a function of frequency and porosity. Journal of the Acoustical Society of America, 2011, 129, EL101-EL107.	0.5	8
35	Acoustic detection of electrostatic suppression of the Leidenfrost state. Physical Review E, 2018, 98, 013103.	0.8	8
36	Arc-Phase Spark Plug Energy Deposition Characteristics Measured Using a Spark Plug Calorimeter Based on Differential Pressure Measurement. Energies, 2020, 13, 3550.	1.6	8

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37	Investigation of low-frequency acoustic tissue properties of seagrass. Proceedings of Meetings on Acoustics, 2013, , .	0.3	7
38	Acoustic communication in the Bocon toadfish (<i>Amphichthys cryptocentrus</i>). Environmental Biology of Fishes, 2018, 101, 1175-1193.	0.4	7
39	Application of acoustical remote sensing techniques for ecosystem monitoring of a seagrass meadow. Journal of the Acoustical Society of America, 2020, 147, 2002-2019.	0.5	7
40	Assessing the low frequency acoustic characteristics of <i>Macrocystis pyrifera</i> , <i>Egregia menziessi</i> , and <i>Laminaria solidungula</i> . Journal of the Acoustical Society of America, 2013, 133, 3819-3826.	0.5	6
41	Low frequency acoustic properties of <i>Posidonia oceanica</i> seagrass leaf blades. Journal of the Acoustical Society of America, 2017, 141, EL555-EL560.	0.5	6
42	Broadband sound propagation in a seagrass meadow throughout a diurnal cycle. Journal of the Acoustical Society of America, 2019, 146, EL335-EL341.	0.5	6
43	Modelling the production of complex calls in the tãngara frog (<i>Physalaemus pustulosus</i>). Bioacoustics, 2019, 28, 345-363.	0.7	6
44	Change in acoustic impulse response of a room due to a fire. Journal of the Acoustical Society of America, 2020, 147, EL546-EL551.	0.5	6
45	Impacts of simulated infaunal activities on acoustic wave propagation in marine sediments. Journal of the Acoustical Society of America, 2020, 147, 812-823.	0.5	6
46	Statistical Inference of Sound Speed and Attenuation Dispersion of a Fine-Grained Marine Sediment. IEEE Journal of Oceanic Engineering, 2022, 47, 553-564.	2.1	6
47	Covariation among multimodal components in the courtship display of the tãngara frog. Journal of Experimental Biology, 2021, 224, .	0.8	6
48	Predicting pressure sensitivity through ontogeny in larval red drum (<i>Sciaenops ocellatus</i>). Proceedings of Meetings on Acoustics, 2019, , .	0.3	5
49	Transdimensional Geoacoustic Inversion Using Prior Information on Range-Dependent Seabed Layering. IEEE Journal of Oceanic Engineering, 2022, 47, 594-606.	2.1	5
50	Characterization of an underwater metamaterial made of aluminum honeycomb panels at low frequencies. Journal of the Acoustical Society of America, 2021, 149, 1829-1837.	0.5	5
51	The effects of environmental variability and spatial sampling on the three-dimensional inversion problem. Journal of the Acoustical Society of America, 2014, 135, 3295-3304.	0.5	4
52	Measurement of low-frequency tissue response of the seagrass <i>Posidonia oceanica</i> . Journal of the Acoustical Society of America, 2017, 141, EL433-EL438.	0.5	4
53	Laboratory measurements and simulations of reflections from a water/clay interface during the diffusion of salt. Journal of the Acoustical Society of America, 2019, 146, 1384-1393.	0.5	4
54	Toward the Ultrasonic Sensing of Organic Carbon in Seagrass-Bearing Sediments. Geophysical Research Letters, 2019, 46, 5968-5977.	1.5	4

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55	Influence of seabed on very low frequency sound recorded during passage of merchant ships on the New England shelf. <i>Journal of the Acoustical Society of America</i> , 2021, 149, 3294-3300.	0.5	4
56	Maximum entropy inference of seabed properties using waveguide invariant features from surface ships. <i>Journal of the Acoustical Society of America</i> , 2022, 151, 2885-2896.	0.5	4
57	Mitigation of low-frequency underwater sound using large encapsulated bubbles and freely-rising bubble clouds. <i>Proceedings of Meetings on Acoustics</i> , 2012, , .	0.3	3
58	Mitigation of low-frequency underwater anthropogenic noise using stationary encapsulated gas bubbles. <i>Proceedings of Meetings on Acoustics</i> , 2012, , .	0.3	3
59	Development of a system for in situ measurements of geoacoustic properties during sediment coring. <i>Proceedings of Meetings on Acoustics</i> , 2016, , .	0.3	3
60	Using one-dimensional waveguide resonators to measure phase velocities in bubbly liquids. <i>Journal of the Acoustical Society of America</i> , 2017, 141, 2832-2839.	0.5	3
61	An illustration of the effect of neglecting poroelastic physics of water-saturated glass beads in a laboratory phase speed inference process. <i>Journal of the Acoustical Society of America</i> , 2019, 146, 1326-1334.	0.5	3
62	Model-data comparison of sound propagation in a glacierized fjord with a brash ice top surface. <i>Proceedings of Meetings on Acoustics</i> , 2019, , .	0.3	3
63	Experimental observations of a rupture induced underwater sound source. <i>Journal of the Acoustical Society of America</i> , 2020, 148, EL370-EL374.	0.5	3
64	Laboratory measurements on gas hydrates and bubbly liquids using active and passive low-frequency acoustic techniques. <i>Proceedings of Meetings on Acoustics</i> , 2011, , .	0.3	2
65	Attenuation of sound in water through collections of very large bubbles with elastic shells. <i>Proceedings of Meetings on Acoustics</i> , 2013, , .	0.3	2
66	Core and resonance logger (CARL) measurements of fine-grained sediments containing infauna. <i>Proceedings of Meetings on Acoustics</i> , 2017, , .	0.3	2
67	Acoustic scattering from a bubbly-liquid-filled compliant cylinder. <i>Acoustics Research Letters Online: ARLO</i> , 2001, 2, 103-108.	0.7	2
68	Acoustic scattering from a toroidal bubble. <i>JASA Express Letters</i> , 2022, 2, 036001.	0.5	2
69	Model-data comparison of sound propagation in a glacierized fjord with a simulated brash ice surface. <i>Journal of the Acoustical Society of America</i> , 2022, 151, 2367-2377.	0.5	2
70	A homemade Edison tinfoil phonograph. <i>Proceedings of Meetings on Acoustics</i> , 2011, , .	0.3	1
71	Protection of a receiving area from underwater pile driving noise using large encapsulated air bubbles. , 2013, , .		1
72	Improved object detection sonar using nonlinear acoustical effects in bubbly media. <i>Proceedings of Meetings on Acoustics</i> , 2016, , .	0.3	1

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73	Sound speed and attenuation in seagrass from the water column into the seabed. Proceedings of Meetings on Acoustics, 2017, , .	0.3	1
74	Physical and acoustical properties of marine sediments containing a wide particle size distribution. Proceedings of Meetings on Acoustics, 2017, , .	0.3	1
75	Measurements and modeling of acoustic propagation in a seagrass meadow. Proceedings of Meetings on Acoustics, 2018, , .	0.3	1
76	Integration and Testing of a Low-Profile Hydrophone Array with REMUS 100 AUV for Seabed Characterization and Marine Mammal Detection Application. , 2019, , .		1
77	Variability of the low-frequency acoustic response along leaf blades and between species of seagrass (<i>Posidonia oceanica</i> and <i>Cymodocea nodosa</i>). JASA Express Letters, 2021, 1, 080801.	0.5	1
78	Inferring elastic properties of seagrass tissue from its acoustic response using finite element analysis. Proceedings of Meetings on Acoustics, 2020, , .	0.3	1
79	Investigation of a rupture-induced underwater sound source. Proceedings of Meetings on Acoustics, 2020, , .	0.3	1
80	Guest Editorial: Continued Exploration of Fine-Grained Sediments from SBCEX2017. IEEE Journal of Oceanic Engineering, 2022, 47, 497-502.	2.1	1
81	Attenuation of underwater sound through stationary arrays of large tethered encapsulated bubbles. , 2013, , .		0
82	Multi-frequency modes in dispersive media. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
83	Exploitation of nonlinear acoustical effects of air bubbles in water for a bubble/target discriminating sonar. Proceedings of Meetings on Acoustics, 2015, , .	0.3	0
84	Shipboard low frequency sound speed measurements in the New England Mud Patch (NEMP). Proceedings of Meetings on Acoustics, 2016, , .	0.3	0
85	Laboratory measurements of reflection coefficient from a water-mud interface after varying bottom water salinity. Proceedings of Meetings on Acoustics, 2016, , .	0.3	0
86	Impulse scattering from clouds of acoustically coupled gas bubbles in fluids. Journal of the Acoustical Society of America, 2017, 141, 2191-2203.	0.5	0
87	Comparative review of low-frequency acoustic properties of Western Mediterranean and Gulf of Mexico seagrass species. , 2017, , .		0
88	Comparison between infauna abundance and seabed geoaoustic properties. Proceedings of Meetings on Acoustics, 2017, , .	0.3	0
89	Estimation of Frequency-Wavenumber Diagrams Using a Physics-Based Grid-Free Compressed Sensing Method. IEEE Journal of Oceanic Engineering, 2022, 47, 565-577.	2.1	0
90	A towable combustive sound source for ocean surveys and ocean acoustics experiments. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0

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91	Passive Underwater Noise Attenuation Using Large Encapsulated Air Bubbles. <i>Advances in Experimental Medicine and Biology</i> , 2016, 875, 607-614.	0.8	0
92	Acoustics of biologically active marine sediments. <i>Proceedings of Meetings on Acoustics</i> , 2018, , .	0.3	0
93	Seabed Characterization Experiment: Analysis of Broadband Data. <i>IEEE Journal of Oceanic Engineering</i> , 2022, 47, 531-540.	2.1	0
94	Head-related transfer function measurements in a compartment fire. <i>Journal of the Acoustical Society of America</i> , 2022, 151, 1730-1740.	0.5	0