Darrell Jackson

List of Publications by Year
in descending order

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72 papers	4,466 citations	218677 26 h-index	114465 63 g-index
106 all docs	106 docs citations	106 times ranked	1630 citing authors

#	Article	IF	Citations
1	Phase conjugation in the ocean: Experimental demonstration of an acoustic time-reversal mirror. Journal of the Acoustical Society of America, 1998, 103, 25-40.	1.1	553
2	The validity of the perturbation approximation for rough surface scattering using a Gaussian roughness spectrum. Journal of the Acoustical Society of America, 1989, 86, 261-277.	1.1	456
3	Pion and Nucleon Structure Functions nearx=1. Physical Review Letters, 1975, 35, 1416-1419.	7.8	378
4	Pion Form Factor. Physical Review Letters, 1979, 43, 246-249.	7.8	349
5	Application of the composite roughness model to highâ€frequency bottom backscattering. Journal of the Acoustical Society of America, 1986, 79, 1410-1422.	1.1	306
6	Phase conjugation in underwater acoustics. Journal of the Acoustical Society of America, 1991, 89, 171-181.	1.1	299
7	High-Frequency Seafloor Acoustics. , 2007, , .		298
8	A long-range and variable focus phase-conjugation experiment in shallow water. Journal of the Acoustical Society of America, 1999, 105, 1597-1604.	1.1	226
9	Highâ€frequency bottom backscattering: Roughness versus sediment volume scattering. Journal of the Acoustical Society of America, 1992, 92, 962-977.	1.1	176
10	Highâ€frequency bottom backscatter measurements in shallow water. Journal of the Acoustical Society of America, 1986, 80, 1188-1199.	1.1	100
11	Narrowâ€band performance of phaseâ€conjugate arrays in dynamic random media. Journal of the Acoustical Society of America, 1992, 91, 3257-3277.	1.1	91
12	Studies of scattering theory using numerical methods. Waves in Random and Complex Media, 1991, 1, S165-S190.	1.5	84
13	Bistatic bottom scattering: Model, experiments, and model/ data comparison. Journal of the Acoustical Society of America, 1998, 103, 169-181.	1.1	75
14	Modeling of subcritical penetration into sediments due to interface roughness. Journal of the Acoustical Society of America, 2000, 107, 263-277.	1.1	60
15	Comparison of perturbation theories for roughâ€surface scattering. Journal of the Acoustical Society of America, 1988, 83, 961-969.	1.1	56
16	A model/data comparison for lowâ€frequency bottom backscatter. Journal of the Acoustical Society of America, 1993, 94, 344-358.	1.1	53
17	Scattering from elastic sea beds: First-order theory. Journal of the Acoustical Society of America, 1998, 103, 336-345.	1.1	51
18	A geoacoustic bottom interaction model (GABIM). IEEE Journal of Oceanic Engineering, 2010, 35, 603-617.	3.8	50

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19	Firstâ€order perturbation solution for rough surface scattering cross section including the effects of gradients. Journal of the Acoustical Society of America, 1994, 96, 1748-1754.	1.1	42
20	Effects of shear elasticity on sea bed scattering: Numerical examples. Journal of the Acoustical Society of America, 1998, 103, 346-354.	1.1	33
21	Sonar evidence for methane ebullition in EckernfÃ¶rde Bay. Continental Shelf Research, 1998, 18, 1893-1915.	1.8	32
22	Acoustics advances study of sea floor hydrothermal flow. Eos, 2002, 83, 497.	0.1	32
23	Analyses of highâ€frequency bottom and subbottom backscattering for two distinct shallow water environments. Journal of the Acoustical Society of America, 1994, 96, 2930-2936.	1.1	31
24	Multipath compensation in shallow water environments using a virtual receiver. Journal of the Acoustical Society of America, 1997, 102, 3439-3449.	1.1	28
25	Entrainment and bending in a major hydrothermal plume, Main Endeavour Field, Juan de Fuca Ridge. Geophysical Research Letters, 2006, 33, .	4.0	28
26	Acoustic remote sensing of benthic activity: A statistical approach. Limnology and Oceanography, 1996, 41, 1220-1241.	3.1	27
27	Interface scattering by poroelastic seafloors: First-order theory. Journal of the Acoustical Society of America, 2001, 110, 2956-2963.	1.1	26
28	Coherence of acoustic scattering from a dynamic rough surface. Journal of the Acoustical Society of America, 1993, 93, 3149-3157.	1.1	21
29	Spatial and temporal variation of acoustic backscatter in the STRESS experiment. Continental Shelf Research, 1994, 14, 1221-1237.	1.8	21
30	High-frequency acoustic observations of benthic spatial and temporal variability. Geo-Marine Letters, 1996, 16, 212-218.	1.1	21
31	Title is missing!. Marine Geophysical Researches, 2002, 23, 81-96.	1.2	19
32	Acoustic mapping of diffuse flow at a seafloor hydrothermal site: Monolith Vent, Juan de Fuca Ridge. Geophysical Research Letters, 1997, 24, 2351-2354.	4.0	18
33	Application of small-roughness perturbation theory to reverberation in range-dependent waveguides. Journal of the Acoustical Society of America, 2012, 131, 4428-4441.	1.1	17
34	Mid-frequency geoacoustic inversion using bottom loss data from the Shallow Water 2006 Experiment. Journal of the Acoustical Society of America, 2012, 131, 1711-1721.	1.1	17
35	Observations of the volume flux of a seafloor hydrothermal plume using an acoustic imaging sonar. Geochemistry, Geophysics, Geosystems, 2013, 14, 2369-2382.	2.5	17
36	Time-series measurement of hydrothermal heat flux at the Grotto mound, Endeavour Segment, Juan de Fuca Ridge. Earth and Planetary Science Letters, 2014, 404, 220-231.	4.4	17

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37	Horizontal spatial coherence of ocean reverberation. Journal of the Acoustical Society of America, 1984, 75, 428-436.	1.1	16
38	Near-field scattering through and from a two-dimensional fluidâ€“fluid rough interface. Journal of the Acoustical Society of America, 1998, 103, 275-287.	1.1	16
39	An acoustic backscatter thermometer for remotely mapping seafloor water temperature. Journal of Geophysical Research, 1992, 97, 761-767.	3.3	15
40	Effects of macrofauna on acoustic backscatter from the seabed: Field manipulations in West Sound, Orcas Island, Washington, U.S.A.. Journal of Marine Research, 2001, 59, 991-1020.	0.3	15
41	Fine-Scale Volume Heterogeneity in a Mixed Sand/Mud Sediment off Fort Walton Beach, FL. IEEE Journal of Oceanic Engineering, 2010, 35, 471-487.	3.8	15
42	A method for Doppler acoustic measurement of black smoker flow fields. Geochemistry, Geophysics, Geosystems, 2003, 4, n/a-n/a.	2.5	13
43	Acoustic Observation of the Time Dependence of the Roughness of Sandy Seafloors. IEEE Journal of Oceanic Engineering, 2009, 34, 407-422.	3.8	13
44	The path to COVIS: A review of acoustic imaging of hydrothermal flow regimes. Deep-Sea Research Part II: Topical Studies in Oceanography, 2015, 121, 159-176.	1.4	13
45	The effect of internal waves on matchedâ€field processing. Journal of the Acoustical Society of America, 1994, 96, 2945-2955.	1.1	11
46	High-frequency bistatic scattering by sub-bottom gas bubbles. Journal of the Acoustical Society of America, 1997, 102, 806-814.	1.1	11
47	Dispersion and attenuation due to scattering from heterogeneities of the frame bulk modulus of a poroelastic medium. Journal of the Acoustical Society of America, 2010, 127, 3372-3384.	1.1	9
48	Acoustic Measurement of Fish Schools Using Array Phase Information. Canadian Journal of Fisheries and Aquatic Sciences, 1987, 44, 1544-1550.	1.4	8
49	Attenuation of sound in sand sediments due to porosity fluctuations. Journal of the Acoustical Society of America, 2014, 136, 583-595.	1.1	8
50	The small-slope approximation for layered, fluid seafloors. Journal of the Acoustical Society of America, 2020, 147, 56-73.	1.1	8
51	Thirty years of progress in theory and modeling of sea surface and seabed scattering. AIP Conference Proceedings, 2012, , .	0.4	7
52	The relative effect of particles and turbulence on acoustic scattering from deep sea hydrothermal vent plumes revisited. Journal of the Acoustical Society of America, 2017, 141, 1446-1458.	1.1	7
53	A time-domain model for seafloor scattering. Journal of the Acoustical Society of America, 2017, 142, 2968-2978.	1.1	7
54	A model for bistatic scattering into ocean sediments for frequencies from 10 to 100 kHz. Journal of the Acoustical Society of America, 1996, 100, 2702-2702.	1.1	6

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55	Sonar observation of diffuse hydrothermal flows. Earth and Space Science, 2017, 4, 230-239.	2.6	5
56	Direct-Path Backscatter Measurements Along the Main Reverberation Track of TREX13. IEEE Journal of Oceanic Engineering, 2019, 44, 972-983.	3.8	5
57	Acoustic and Inâ€Situ Observations of Deep Seafloor Hydrothermal Discharge: An OOI Cabled Array ASHES Vent Field Case Study. Earth and Space Science, 2021, 8, e2020EA001269.	2.6	5
58	Scattering from layered seafloors: Comparisons between theory and integral equations. Journal of the Acoustical Society of America, 2020, 148, 2086-2095.	1.1	4
59	Thirty years of sand acoustics: A perspective on experiments, models and data/model comparisons. , 2012, , .		3
60	The small-slope approximation for layered seabeds. Proceedings of Meetings on Acoustics, 2013, , .	0.3	3
61	Spatial and Temporal Variability in Bottom Roughness: Implications to High Frequency Subcritical Penetration and Backscatter. , 2002, , 195-202.		3
62	Sediment Heterogeneity. , 2007, , 201-243.		2
63	Multipath compensation in shallowâ€water environments using a virtual receiver. Journal of the Acoustical Society of America, 1997, 102, 3141-3142.	1.1	2
64	Progress and Research Issues in High-Frequency Seafloor Scattering. AIP Conference Proceedings, 2004, , .	0.4	1
65	Corrections to â€œA Geoacoustic Bottom Interaction Model (GABIM)â€•[Jul 10 603-617]. IEEE Journal of Oceanic Engineering, 2011, 36, 373-373.	3.8	1
66	Six decades of evolution in underwater acoustics at the Applied Physics Laboratory - University of Washington (APL-UW). Proceedings of Meetings on Acoustics, 2015, , .	0.3	1
67	The mutual scattering cross section. Journal of the Acoustical Society of America, 2019, 146, 4611-4624.	1.1	1
68	Iterative time reversal in the ocean. Journal of the Acoustical Society of America, 1997, 101, 3089-3089.	1.1	1
69	Observations of subcritical acoustic penetration of a sandy seafloor. Journal of the Acoustical Society of America, 2006, 120, 3144-3144.	1.1	0
70	Scattering from an arbitarily shaped rough interface embedded in heterogeneous fluids.. Journal of the Acoustical Society of America, 2010, 128, 2326-2326.	1.1	0
71	Experimental demonstration of an acoustic time reversal mirror in the ocean. Journal of the Acoustical Society of America, 1996, 100, 2664-2664.	1.1	0
72	Time reversal in acoustics: Background and perspectives. Journal of the Acoustical Society of America, 1997, 101, 3088-3088.	1.1	0