

# David R Dowling

## List of Publications by Year in descending order

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67  
papers

2,434  
citations

185998

28  
h-index

205818

48  
g-index

71  
all docs

71  
docs citations

71  
times ranked

1093  
citing authors

#	ARTICLE	IF	CITATIONS
1	Phase conjugation in underwater acoustics. Journal of the Acoustical Society of America, 1991, 89, 171-181.	0.5	299
2	Similarity of the concentration field of gas-phase turbulent jets. Journal of Fluid Mechanics, 1990, 218, 109.	1.4	235
3	Bubble-induced skin-friction drag reduction and the abrupt transition to air-layer drag reduction. Journal of Fluid Mechanics, 2008, 612, 201-236.	1.4	180
4	Bubble friction drag reduction in a high-Reynolds-number flat-plate turbulent boundary layer. Journal of Fluid Mechanics, 2006, 552, 353.	1.4	178
5	Acoustic pulse compression using passive phase-conjugate processing. Journal of the Acoustical Society of America, 1994, 95, 1450-1458.	0.5	146
6	Narrow-band performance of phase-conjugate arrays in dynamic random media. Journal of the Acoustical Society of America, 1992, 91, 3257-3277.	0.5	91
7	On the scaling of air layer drag reduction. Journal of Fluid Mechanics, 2013, 717, 484-513.	1.4	77
8	Bubble-size distributions produced by wall injection of air into flowing freshwater, saltwater and surfactant solutions. Experiments in Fluids, 2004, 37, 802-810.	1.1	59
9	Using cross correlations of turbulent flow-induced ambient vibrations to estimate the structural impulse response. Application to structural health monitoring. Journal of the Acoustical Society of America, 2007, 121, 1987-1995.	0.5	57
10	On the scaling of air entrainment from a ventilated partial cavity. Journal of Fluid Mechanics, 2013, 732, 47-76.	1.4	54
11	Blind deconvolution for robust signal estimation and approximate source localization. Journal of the Acoustical Society of America, 2012, 131, 2599-2610.	0.5	51
12	High frequency source localization in a shallow ocean sound channel using frequency difference matched field processing. Journal of the Acoustical Society of America, 2015, 138, 3549-3562.	0.5	50
13	Ray-based blind deconvolution in ocean sound channels. Journal of the Acoustical Society of America, 2010, 127, EL42-EL47.	0.5	49
14	Broadband sparse-array blind deconvolution using frequency-difference beamforming. Journal of the Acoustical Society of America, 2012, 132, 3018-3029.	0.5	47
15	Blind deconvolution in ocean waveguides using artificial time reversal. Journal of the Acoustical Society of America, 2004, 116, 262-271.	0.5	44
16	Freeman Scholar Review: Passive and Active Skin-Friction Drag Reduction in Turbulent Boundary Layers. Journal of Fluids Engineering, Transactions of the ASME, 2016, 138, .	0.8	44
17	Modification of the mean near-wall velocity profile of a high-Reynolds number turbulent boundary layer with the injection of drag-reducing polymer solutions. Physics of Fluids, 2013, 25, .	1.6	43
18	Flow-induced degradation of drag-reducing polymer solutions within a high-Reynolds-number turbulent boundary layer. Journal of Fluid Mechanics, 2011, 670, 337-364.	1.4	39

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19	Phase-conjugate array focusing in a moving medium. Journal of the Acoustical Society of America, 1993, 94, 1716-1718.	0.5	38
20	Vortex shedding from a hydrofoil at high Reynolds number. Journal of Fluid Mechanics, 2005, 531, 293-324.	1.4	38
21	Acoustic Remote Sensing. Annual Review of Fluid Mechanics, 2015, 47, 221-243.	10.8	36
22	High Reynolds number experimentation in the US Navy's William B Morgan Large Cavitation Channel. Measurement Science and Technology, 2005, 16, 1701-1709.	1.4	35
23	Experimental assessment of fractal scale similarity in turbulent flows. Part 3. Multifractal scaling. Journal of Fluid Mechanics, 1997, 338, 127-155.	1.4	33
24	Adaptive frequency-difference matched field processing for high frequency source localization in a noisy shallow ocean. Journal of the Acoustical Society of America, 2017, 141, 543-556.	0.5	33
25	The estimated scalar dissipation rate in gas-phase turbulent jets. Physics of Fluids A, Fluid Dynamics, 1991, 3, 2229-2246.	1.6	31
26	The mean velocity profile of a smooth-flat-plate turbulent boundary layer at high Reynolds number. Journal of Fluid Mechanics, 2010, 665, 357-381.	1.4	31
27	Time-averaged flow over a hydrofoil at high Reynolds number. Journal of Fluid Mechanics, 2003, 496, 365-404.	1.4	29
28	Turbulence profiles from a smooth flat-plate turbulent boundary layer at high Reynolds number. Experimental Thermal and Fluid Science, 2012, 40, 140-149.	1.5	28
29	Performance comparisons of frequency-difference and conventional beamforming. Journal of the Acoustical Society of America, 2017, 142, 1663-1673.	0.5	27
30	The frequency-difference and frequency-sum acoustic-field autoproductions. Journal of the Acoustical Society of America, 2017, 141, 4579-4590.	0.5	25
31	Ranging bowhead whale calls in a shallow-water dispersive waveguide. Journal of the Acoustical Society of America, 2014, 136, 130-144.	0.5	23
32	Coherence of acoustic scattering from a dynamic rough surface. Journal of the Acoustical Society of America, 1993, 93, 3149-3157.	0.5	21
33	Long-range frequency-difference source localization in the Philippine Sea. Journal of the Acoustical Society of America, 2019, 146, 4727-4739.	0.5	21
34	Computed narrow-band time-reversing array retrofocusing in a dynamic shallow ocean. Journal of the Acoustical Society of America, 2000, 107, 3101-3112.	0.5	20
35	Time-reversing array retrofocusing in noisy environments. Journal of the Acoustical Society of America, 2001, 109, 538-546.	0.5	15
36	Photoacoustic detection and localization of small gas leaks. Journal of the Acoustical Society of America, 1999, 105, 2685-2694.	0.5	14

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37	Broadband time-reversing array retrofocusing in noisy environments. <i>Journal of the Acoustical Society of America</i> , 2002, 111, 823-830.	0.5	14
38	Numerical simulation of free surface flows with the level set method using an extremely high-order accuracy WENO advection scheme. <i>International Journal of Computational Fluid Dynamics</i> , 2009, 23, 233-243.	0.5	14
39	Measurement of autopropagating fields in a Lloyd's mirror environment. <i>Journal of the Acoustical Society of America</i> , 2018, 143, 2419-2427.	0.5	14
40	Time-reversing array retrofocusing in simple dynamic underwater environments. <i>Journal of the Acoustical Society of America</i> , 1998, 104, 3339-3350.	0.5	13
41	Frequency-difference beamforming in the presence of strong random scattering. <i>Journal of the Acoustical Society of America</i> , 2019, 146, 122-134.	0.5	13
42	Broadband performance of a time reversing array with a moving source. <i>Journal of the Acoustical Society of America</i> , 2004, 115, 2807-2817.	0.5	12
43	High-Reynolds-number turbulent-boundary-layer wall-pressure fluctuations with dilute polymer solutions. <i>Physics of Fluids</i> , 2010, 22, 085104.	1.6	10
44	Experimental assessment of fractal scale similarity in turbulent flows. Part 4. Effects of Reynolds and Schmidt numbers. <i>Journal of Fluid Mechanics</i> , 1998, 377, 169-187.	1.4	9
45	Broadband performance of a moving time reversing array. <i>Journal of the Acoustical Society of America</i> , 2003, 114, 1395-1405.	0.5	9
46	Simulations and measurements of mold melt flow during the injection molding of polystyrene. <i>Polymer Engineering and Science</i> , 2013, 53, 770-779.	1.5	9
47	Linear and nonlinear gravity-capillary water waves with a soluble surfactant. <i>Experiments in Fluids</i> , 2001, 30, 448-457.	1.1	8
48	Robust long-range source localization in the deep ocean using phase-only matched autopropagating processing. <i>Journal of the Acoustical Society of America</i> , 2021, 150, 171-182.	0.5	7
49	Effect of ocean currents on the performance of a time-reversing array in shallow water. <i>Journal of the Acoustical Society of America</i> , 2003, 114, 3125-3135.	0.5	6
50	High-Reynolds-number turbulent-boundary-layer wall pressure fluctuations with skin-friction reduction by air injection. <i>Journal of the Acoustical Society of America</i> , 2008, 123, 2522-2530.	0.5	6
51	Computed narrow-band azimuthal time-reversing array retrofocusing in shallow water. <i>Journal of the Acoustical Society of America</i> , 2001, 110, 1931-1942.	0.5	5
52	Effects of time-reversing array deformation in an ocean wave guide. <i>Journal of the Acoustical Society of America</i> , 2004, 115, 2844-2847.	0.5	5
53	The effects of refraction and caustics on autopropagating fields. <i>Journal of the Acoustical Society of America</i> , 2020, 147, 3959-3968.	0.5	5
54	Measurements of the correlation of the frequency-difference autopropagating field with acoustic and predicted-autopropagating fields in the deep ocean. <i>Journal of the Acoustical Society of America</i> , 2021, 149, 853-865.	0.5	5

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55	Revealing hidden information with quadratic products of acoustic field amplitudes. Physical Review Fluids, 2018, 3, .	1.0	5
56	Autoproducts in and near acoustic shadow zones created by barriers. Journal of the Acoustical Society of America, 2020, 147, 1863-1873.	0.5	4
57	Simulating acoustic coherent backscattering enhancement from random aggregations of omnidirectional scatterers. Journal of the Acoustical Society of America, 2015, 138, 758-768.	0.5	3
58	Effect of bevel angle on the reflection coefficient from open unflanged pipes. Journal of the Acoustical Society of America, 2018, 144, 1212-1215.	0.5	3
59	Acoustic precondensation phenomena in freons. Journal of the Acoustical Society of America, 1995, 97, 1014-1018.	0.5	2
60	Particle image velocimetry in molten plastic. Polymer Engineering and Science, 2011, 51, 730-745.	1.5	2
61	Remote acoustic detection of mechanical changes in a vibrating plate in an unknown reverberant environment. Journal of the Acoustical Society of America, 2018, 143, 1093-1101.	0.5	2
62	High-resolution acoustic localization of changes in spatially-distributed coherent sources for structural health monitoring. Journal of the Acoustical Society of America, 2020, 148, 713-723.	0.5	2
63	Recovery of coherent reflection from rough-surface scattered acoustic fields via the frequency-difference autoprodut. Journal of the Acoustical Society of America, 2022, 151, 620-633.	0.5	2
64	Comparisons of exact and approximate convection of plane waves in a simple shear flow. Journal of the Acoustical Society of America, 1997, 102, 3378-3386.	0.5	1
65	Far-field coherent backscatter enhancement from random aggregations of scatterers and comparisons to backscattering from single isolated spheres. Journal of the Acoustical Society of America, 2017, 141, 1214-1225.	0.5	1
66	Remote acoustic detection of cuts in a vibrating plate with stochastic input forcing in a reverberant environment. Journal of the Acoustical Society of America, 2019, 145, 3039-3047.	0.5	0
67	Information and suggestions for new mentors of beginning researchers. Proceedings of Meetings on Acoustics, 2019, , .	0.3	0