Brian E Anderson

List of Publications by Year
in descending order

67 papers	755 citations	567281 15 h-index	610901 24 g-index
90 all docs	90 docs citations	90 times ranked	378 citing authors

#	Article	IF	Citations
1	The physics of knocking over LEGO minifigures with time reversal focused vibrations for use in a museum exhibit. Journal of the Acoustical Society of America, 2022, 151, 738-751.	1.1	2
2	Nonlinear characteristics of high amplitude focusing using time reversal in a reverberation chamber. Journal of the Acoustical Society of America, 2022, 151, 3603-3614.	1.1	6
3	Active noise control using remotely placed sources: Application to magnetic resonance imaging noise and equivalence to the time reversal inverse filter. Applied Acoustics, 2021, 176, 107902.	3.3	5
4	The performance of time reversal in elastic chaotic cavities as a function of volume and geometric shape of the cavity. Journal of the Acoustical Society of America, 2021, 150, 526-539.	1.1	4
5	The impact of room location on time reversal focusing amplitudes. Journal of the Acoustical Society of America, 2021, 150, 1424-1433.	1.1	7
6	High-amplitude time reversal focusing of airborne ultrasound to generate a focused nonlinear difference frequency. Journal of the Acoustical Society of America, 2021, 150, 1411-1423.	1.1	8
7	Understanding Acoustics: An Experimentalist's View of Sound and Vibration, Second Edition. Journal of the Acoustical Society of America, 2021, 150, 1733-1734.	1.1	0
8	Design of an underwater acoustics lab. Proceedings of Meetings on Acoustics, 2021, , .	0.3	1
9	Solving one-dimensional acoustic systems using the impedance translation theorem and equivalent circuits: A graduate level homework assignment. Journal of the Acoustical Society of America, 2021, 150, 4155-4165.	1.1	4
10	Electromagnetic excitation technique for nonlinear resonant ultrasound spectroscopy. NDT and E International, 2020, 109, 102181.	3.7	3
11	Detecting and imaging stress corrosion cracking in stainless steel, with application to inspecting storage canisters for spent nuclear fuel. NDT and E International, 2020, 109, 102180.	3.7	13
12	The effects of source placement on time reversal focusing in rooms. Applied Acoustics, 2019, 156, 279-288.	3.3	10
13	A comparison of impulse response modification techniques for time reversal with application to crack detection. Journal of the Acoustical Society of America, 2019, 145, 3195-3207.	1.1	13
14	Nonlinearity from stress corrosion cracking as a function of chloride exposure time using the time reversed elastic nonlinearity diagnostic. Journal of the Acoustical Society of America, 2019, 145, 382-391.	1.1	15
15	Nonlinear resonant ultrasound spectroscopy of stress corrosion cracking in stainless steel rods. NDT and E International, 2019, 102, 194-198.	3.7	15
16	Time Reversal Techniques. , 2019, , 547-581.		6
17	Selecting a new textbook for a graduate level course on vibration and fluid acoustics. Proceedings of Meetings on Acoustics, 2019, , .	0.3	1
18	Time reversal focusing of high amplitude sound in a reverberation chamber. Journal of the Acoustical Society of America, 2018, 143, 696-705.	1.1	22

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19	Understanding radiation impedance through animations. Proceedings of Meetings on Acoustics, 2018, , .	0.3	0
20	Time reversal acoustics applied to rooms of various reverberation times. Journal of the Acoustical Society of America, 2018, 144, 3055-3066.	1.1	16
21	Stress corrosion crack depth investigation using the time reversed elastic nonlinearity diagnostic. Journal of the Acoustical Society of America, 2017, 141, EL76-EL81.	1.1	19
22	Time reversal focusing of elastic waves in plates for an educational demonstration. Journal of the Acoustical Society of America, 2017, 141, 1084-1092.	1.1	25
23	Effects of simultaneous sound arrivals on direction-of-arrival estimates of the polar energy time curve. Applied Acoustics, 2017, 117, 167-172.	3.3	1
24	The effect of transducer directivity on time reversal focusing. Journal of the Acoustical Society of America, 2017, 142, EL95-EL101.	1.1	14
25	Teaching the descriptive physics of string instruments at the undergraduate level. Proceedings of Meetings on Acoustics, 2016, , .	0.3	2
26	Three-dimensional time reversal communications in elastic media. Journal of the Acoustical Society of America, 2016, 139, EL25-EL30.	1.1	12
27	A laboratory experiment to test the limits of Bernoulli-Euler theory for flexural waves in bars. Proceedings of Meetings on Acoustics, 2016, , .	0.3	0
28	Damage imaging in a laminated composite plate using an air-coupled time reversal mirror. Applied Physics Letters, 2015, 107, .	3.3	36
29	Depth profile of a time-reversal focus in an elastic solid. Ultrasonics, 2015, 58, 60-66.	3.9	5
30	Ultrasonic radiation from wedges of cubic profile: Experimental results. Ultrasonics, 2015, 63, 141-146.	3.9	7
31	Extraction of plate bending stiffness from coincidence angles of sound transmission measurements. Journal of the Acoustical Society of America, 2015, 137, 498-500.	1.1	0
32	Improving spatio-temporal focusing and source reconstruction through deconvolution. Wave Motion, 2015, 52, 151-159.	2.0	29
33	Modal response and sound radiation from a hammered dulcimer. Proceedings of Meetings on Acoustics, 2014, , .	0.3	0
34	Finite-difference simulations of transient radiation from a finite-length pipe. Journal of the Acoustical Society of America, 2014, 135, 17-26.	1.1	1
35	Improving the air coupling of bulk piezoelectric transducers with wedges of power-law profiles: A numerical study. Ultrasonics, 2014, 54, 1409-1416.	3.9	10
36	Optimized Dynamic Acousto-elasticity Applied to Fatigue Damage and Stress Corrosion Cracking. Journal of Nondestructive Evaluation, 2014, 33, 226-238.	2.4	21

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37	Dynamic Acousto-Elasticity in a Fatigue-Cracked Sample. Journal of Nondestructive Evaluation, 2014, 33, 216-225.	2.4	34
38	A high amplitude, time reversal acoustic non-contact excitation (trance). Journal of the Acoustical Society of America, 2013, 134, EL52-EL56.	1.1	14
39	Optimization of the array mirror for time reversal techniques used in a half-space environment. Journal of the Acoustical Society of America, 2013, 133, EL351-EL357.	1.1	12
40	Equivalent circuit modeling and vibrometry measurements of the Nigerian-origin Udu Utar drum. Journal of the Acoustical Society of America, 2013, 133, 1718-1726.	1.1	5
41	Evaluation of moving-coil loudspeaker and passive radiator parameters using normal-incidence sound transmission measurements: Theoretical developments. Journal of the Acoustical Society of America, 2013, 134, 223-236.	1.1	3
42	Comparison and visualization of focusing wave fields from various time reversal techniques in elastic media. Journal of the Acoustical Society of America, 2013, 134, EL527-EL533.	1.1	10
43	Improving the focal quality of the time reversal acoustic noncontact source using a deconvolution operation. Proceedings of Meetings on Acoustics, 2013, , .	0.3	2
44	Imaging crack orientation using the time reversed elastic nonlinearity diagnostic with three component time reversal. Proceedings of Meetings on Acoustics, 2013, , .	0.3	3
45	The song of the singing rod. Journal of the Acoustical Society of America, 2012, 131, 2435-2443.	1.1	4
46	Creating an active-learning environment in an introductory acoustics course. Journal of the Acoustical Society of America, 2012, 131, 2500-2509.	1.1	21
47	Loudspeaker line array educational demonstration. Journal of the Acoustical Society of America, 2012, 131, 2394-2400.	1.1	9
48	On the measurement of airborne, angular-dependent sound transmission through supercritical bars. Journal of the Acoustical Society of America, 2012, 132, EL257-EL263.	1.1	3
49	Improving time reversal focusing through deconvolution: 20 questions. Proceedings of Meetings on Acoustics, 2012, , .	0.3	10
50	First simulations of the candy can concept for high amplitude non-contact excitation. Proceedings of Meetings on Acoustics, 2012, , .	0.3	3
51	Experimental implementation of reverse time migration for nondestructive evaluation applications. Journal of the Acoustical Society of America, 2011, 129, EL8-EL14.	1.1	26
52	Matched signals: The beginnings of time reversal. Proceedings of Meetings on Acoustics, 2011, , .	0.3	16
53	Ultrasonic anechoic chamber qualification: Accounting for atmospheric absorption and transducer directivity. Journal of the Acoustical Society of America, 2011, 130, EL69-EL75.	1.1	5
54	Probing the interior of a solid volume with time reversal and nonlinear elastic wave spectroscopy. Journal of the Acoustical Society of America, 2011, 130, EL258-EL263.	1.1	14

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55	Time reversal reconstruction of finite sized sources in elastic media. Journal of the Acoustical Society of America, 2011, 130, EL219-EL225.	1.1	18
56	The effects of non-cardioid directivity on incidence angle estimation using the polar energy time curve. Journal of the Acoustical Society of America, 2011, 130, EL244-EL250.	1.1	2
57	Vector component focusing in elastic solids using a scalar source in three component time reversal. Physics Procedia, 2010, 3, 685-689.	1.2	2
58	Ultrasonic airborne insertion loss measurements at normal incidence (L). Journal of the Acoustical Society of America, 2010, 128, 3305-3307.	1.1	2
59	Time reversal of continuous-wave, steady-state signals in elastic media. Applied Physics Letters, 2009, 94, 111908.	3.3	17
60	Energy current imaging method for time reversal in elastic media. Applied Physics Letters, 2009, 95, 021907.	3.3	12
61	Three component time reversal: Focusing vector components using a scalar source. Journal of Applied Physics, 2009, 106, 113504.	2.5	22
62	Grating lobe reduction in transducer arrays through structural filtering of supercritical plates. Journal of the Acoustical Society of America, 2009, 126, 612-619.	1.1	10
63	Selective source reduction to identify masked sources using time reversal acoustics. Journal Physics D: Applied Physics, 2008, 41, 155504.	2.8	9
64	SELECTIVE SOURCE REDUCTION TO IDENTIFY MASKED SMALLER SOURCES USING TIME REVERSED ACOUSTICS (TRA). AIP Conference Proceedings, 2008, , .	0.4	1
65	On the steering of sound energy through a supercritical plate by a near-field transducer array. Journal of the Acoustical Society of America, 2008, 123, 2613-2619.	1.1	5
66	Time Reversal. Acoustics Today, 2008, 4, 5.	1.0	109
67	The effect of inharmonic partials on pitch of piano tones. Journal of the Acoustical Society of America, 2005, 117, 3268-3272.	1.1	11