J Stuart Bolton

List of Publications by Year
in descending order

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119 papers	2,214 citations	257101 24 h-index	253896 43 g-index
131 all docs	131 docs citations	131 times ranked	1061 citing authors

#	Article	IF	Citations
1	The acoustical absorption by air-saturated aerogel powders. Journal of the Acoustical Society of America, 2022, 151, 1502-1515.	0.5	7
2	Acoustic far-field prediction based on near-field measurements by using several different holography algorithms. Journal of the Acoustical Society of America, 2022, 151, 2171-2180.	0.5	5
3	An iterative transfer matrix approach for estimating the sound speed and attenuation constant of air in a standing wave tube. Journal of the Acoustical Society of America, 2022, 151, 4016-4027.	0.5	1
4	Case study: Purdue University's "Clapping Circle": An acoustical investigation. Noise Control Engineering Journal, 2021, 69, 288-300.	0.2	0
5	A method to calculate acoustic radiation modes based on spheroidal wave functions. JASA Express Letters, 2021, 1, .	0.5	2
6	Acoustical characteristics of segmented plates with contact interfaces. Journal of Sound and Vibration, 2020, 485, 115584.	2.1	2
7	Structural damping by lightweight poro-elastic media. Journal of Sound and Vibration, 2019, 459, 114866.	2.1	10
8	Calculation of acoustic radiation modes by using spherical waves and generalized singular value decomposition. Journal of the Acoustical Society of America, 2019, 146, EL347-EL351.	0.5	3
9	Modeling and coupling of acoustical layered systems that consist of elements having different transfer matrix dimensions. Journal of Applied Physics, 2019, 126, .	1.1	8
10	Spatially sparse sound source localization in an under-determined system by using a hybrid compressive sensing method. Journal of the Acoustical Society of America, 2019, 146, 1219-1229.	0.5	12
11	Structural Damping by Layers of Fibrous Media Applied to a Periodically-Constrained Vibrating Panel. Journal of Physics: Conference Series, 2019, 1264, 012043.	0.3	4
12	Point excitation of a coupled structural-acoustical tire model with experimental verification: Higher order cavity modes. Applied Acoustics, 2018, 136, 48-60.	1.7	3
13	Prediction of airflow resistivity of fibrous acoustical media having two fiber components and a distribution of fiber radii. Applied Acoustics, 2018, 134, 145-153.	1.7	19
14	Sound field reconstruction using multipole equivalent source model with un-fixed source locations. Journal of the Acoustical Society of America, 2018, 144, 2674-2690.	0.5	5
15	Acoustic source reconstruction and visualization based on acoustic radiation modes. Journal of Sound and Vibration, 2018, 437, 358-372.	2.1	19
16	Microstructure design of lightweight fibrous material acting as a layered damper for a vibrating stiff panel. Journal of the Acoustical Society of America, 2018, 143, 3254-3265.	0.5	11
17	Least-squares reconstruction of low-frequency inhomogeneous plane waves. Journal of Sound and Vibration, 2018, 430, 134-149.	2.1	2
18	The identification of minimum-weight sound packages. Noise Control Engineering Journal, 2018, 66, 523-540.	0.2	4

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19	Experiments on the low frequency barrier characteristics of cellular metamaterial panels in a diffuse sound field. Journal of the Acoustical Society of America, 2017, 141, 602-610.	0.5	32
20	Bounded inhomogeneous wave profiles for increased surface wave excitation efficiency at fluidâ€“solid interfaces. Journal of the Acoustical Society of America, 2017, 141, 2779-2787.	0.5	1
21	Diesel Engine Noise Source Visualization with Wideband Acoustical Holography. , 2017, , .		3
22	Prediction of sound fields radiated by finite-size sources in room environments by using equivalent source models: three-dimensional simulation and validation. Noise Control Engineering Journal, 2017, 65, 406-416.	0.2	3
23	Response of a shell structure subject to distributed harmonic excitation. Journal of Physics: Conference Series, 2016, 744, 012150.	0.3	0
24	Response of a shell structure subject to distributed harmonic excitation. Journal of Physics: Conference Series, 2016, 744, 012187.	0.3	1
25	Enhanced acoustic transmission into dissipative solid materials through the use of inhomogeneous plane waves. Journal of Physics: Conference Series, 2016, 744, 012188.	0.3	1
26	On the completeness and the linear dependence of the Cartesian multipole series in representing the solution to the Helmholtz equation. Journal of the Acoustical Society of America, 2016, 140, EL149-EL153.	0.5	5
27	Design of multi-chamber cylindrical silencers with microperforated elements. Noise Control Engineering Journal, 2016, 64, 532-543.	0.2	3
28	Testing of axial fans with microperforated housings. Noise Control Engineering Journal, 2016, 64, 511-521.	0.2	2
29	On the use of evanescent plane waves for low-frequency energy transmission across material interfaces. Journal of the Acoustical Society of America, 2015, 138, 2062-2078.	0.5	15
30	Adaptive mechanical properties of topologically interlocking material systems. Smart Materials and Structures, 2015, 24, 045037.	1.8	25
31	Coupling mechanism analysis of structural modes and sound radiations of a tire tread band based on the S-mode technique. Applied Acoustics, 2015, 99, 161-170.	1.7	4
32	Sound power radiation from a vibrating structure in terms of structure-dependent radiation modes. Journal of Sound and Vibration, 2015, 335, 245-260.	2.1	8
33	Scaling of the Elastic Behavior of Two-Dimensional Topologically Interlocked Materials Under Transverse Loading. Journal of Applied Mechanics, Transactions ASME, 2014, 81, .	1.1	27
34	The low frequency performance of metamaterial barriers based on cellular structures. Applied Acoustics, 2013, 74, 485-495.	1.7	65
35	Transfer impedance of microperforated materials with tapered holes. Journal of the Acoustical Society of America, 2013, 134, 4752-4762.	0.5	37
36	Development of Polyimide Foam for Aircraft Sidewall Applications. , 2013, , .		8

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37	Reconstruction of the free-field radiation from a vibrating structure based on measurements in a noisy environment. Journal of the Acoustical Society of America, 2013, 134, 2823-2832.	0.5	25
38	The use of equivalent source models for reduced order simulation in room acoustics. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
39	Experimental identification of force radiation modes. Noise Control Engineering Journal, 2013, 61, 81-86.	0.2	0
40	The Application of Singular Value Decomposition to Determine the Sources of Far Field Diesel Engine Noise. SAE International Journal of Engines, 2013, 6, 1386-1393.	0.4	3
41	An equivalent source technique for recovering the free sound field in a noisy environment. Journal of the Acoustical Society of America, 2012, 131, 1260-1270.	0.5	38
42	Influence of fuel injection parameters on combustion-induced noise in a small diesel engine. International Journal of Engine Research, 2012, 13, 130-146.	1.4	18
43	A thermophone on porous polymeric substrate. Applied Physics Letters, 2012, 101, .	1.5	18
44	Transverse loading of cellular topologically interlocked materials. International Journal of Solids and Structures, 2012, 49, 2394-2403.	1.3	56
45	Reduction of sound radiation by using extended radiation modes: Effects of added mass. Acoustical Science and Technology, 2012, 33, 56-58.	0.3	0
46	Reduction of sound radiation by using force radiation modes. Applied Acoustics, 2011, 72, 420-427.	1.7	9
47	Reduction of Low Frequency Noise Transmitted Through a Single-Pane Window. Acta Acustica United With Acustica, 2011, 97, 382-390.	0.8	4
48	Tire Surface Vibration and Sound Radiation Resulting from the Tire Cavity Mode. Tire Science and Technology, 2011, 39, 245-255.	0.3	12
49	Dual surface beamforming and acoustical holography for sound field visualization in reverberant environments. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2010, 224, 55-70.	1.1	3
50	Estimation of the combustion-related noise transfer matrix of a multi-cylinder diesel engine. Measurement Science and Technology, 2009, 20, 015106.	1.4	7
51	A comparison of near-field beamforming and acoustical holography for sound source visualization. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2009, 223, 819-834.	1.1	8
52	Acoustic source property prediction based on near-field measurements in planar coordinate. Journal of Sound and Vibration, 2009, 324, 587-607.	2.1	0
53	Reduction of fan noise emission by enclosure modification. Noise Control Engineering Journal, 2008, 56, 4.	0.2	2
54	Holographic visualization of multi-component sources by using reference measurements only. Noise Control Engineering Journal, 2007, 55, 257.	0.2	2

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55	A one-step patch near-field acoustical holography procedure. Journal of the Acoustical Society of America, 2007, 122, 1662-1670.	0.5	11
56	Reconstruction of source distributions from sound pressures measured over discontinuous regions: Multipatch holography and interpolation. Journal of the Acoustical Society of America, 2007, 121, 2086-2096.	0.5	22
57	Source characterization of a subsonic jet by using near-field acoustical holography. Journal of the Acoustical Society of America, 2007, 121, 967-977.	0.5	51
58	Influence of Tire Size and Shape on Sound Radiation from a Tire in the Mid-Frequency Region. , 2007, , .		6
59	Scan-based near-field acoustical holography and partial field decomposition in the presence of noise and source level variation. Journal of the Acoustical Society of America, 2006, 119, 382-393.	0.5	48
60	Patch near-field acoustical holography in cylindrical geometry. Journal of the Acoustical Society of America, 2005, 118, 3721-3732.	0.5	34
61	Source visualization by using statistically optimized near-field acoustical holography in cylindrical coordinates. Journal of the Acoustical Society of America, 2005, 118, 2355-2364.	0.5	91
62	Partial sound field decomposition in multireference near-field acoustical holography by using optimally located virtual references. Journal of the Acoustical Society of America, 2004, 115, 1641-1652.	0.5	34
63	Effects of rotation on the dynamics of a circular cylindrical shell with application to tire vibration. Journal of Sound and Vibration, 2004, 275, 605-621.	2.1	77
64	Investigation of the vibrational modes of edge-constrained fibrous samples placed in a standing wave tube. Journal of the Acoustical Society of America, 2003, 113, 1833-1849.	0.5	26
65	Application of cylindrical near-field acoustical holography to the visualization of aeroacoustic sources. Journal of the Acoustical Society of America, 2003, 114, 842-858.	0.5	23
66	Compensation for source nonstationarity in multireference, scan-based near-field acoustical holography. Journal of the Acoustical Society of America, 2003, 113, 360-368.	0.5	37
67	Application of the edge-constraint effect to nearly-realistic barrier treatments. Noise Control Engineering Journal, 2003, 51, 5.	0.2	0
68	Enhancement of the barrier performance of porous linings by using internal constraints. Noise Control Engineering Journal, 2003, 51, 16.	0.2	3
69	Application of the Boundary Element Method to Prediction of Highway Noise Barrier Performance. Transportation Research Record, 2002, 1792, 65-74.	1.0	1
70	STATISTICAL PROPERTIES OF RANDOM SPARSE ARRAYS. Journal of Sound and Vibration, 2002, 255, 819-848.	2.1	7
71	Effect of circumferential edge constraint on the acoustical properties of glass fiber materials. Journal of the Acoustical Society of America, 2001, 110, 2902-2916.	0.5	59
72	AN EFFICIENT PROCEDURE FOR VISUALIZING THE SOUND FIELD RADIATED BY VEHICLES DURING STANDARDIZED PASSBY TESTS. Journal of Sound and Vibration, 2000, 233, 137-156.	2.1	50

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73	Sound cancellation by the use of secondary multipoles: Experiments. Journal of the Acoustical Society of America, 2000, 107, 1189-1202.	0.5	9
74	A transfer-matrix approach for estimating the characteristic impedance and wave numbers of limp and rigid porous materials. Journal of the Acoustical Society of America, 2000, 107, 1131-1152.	0.5	306
75	Transfer Matrix Approach to the Estimation of the Fundamental Acoustical Properties of Noise Control Materials. , 1999, , .		1
76	An axisymmetric poroelastic finite element formulation. Journal of the Acoustical Society of America, 1999, 106, 565-574.	0.5	17
77	Sound transmission through elastic porous wedges and foam layers having spatially graded properties. Journal of the Acoustical Society of America, 1997, 102, 3319-3332.	0.5	20
78	Layered Fibrous Treatments for a Sound Absorption and Sound Transmission. , 1997, , .		14
79	Development of a New Sound Transmission Test for Automotive Sealant Materials. , 1997, , .		11
80	The Use of Nearfield Acoustical Holography (NAH) and Partial Field Decomposition to Identify and Quantify the Sources of Exterior Noise Radiated from a Vehicle. , 1997, , .		0
81	Plane wave reflection coefficient estimation by use of spatial parametric signal modeling. Journal of the Acoustical Society of America, 1997, 102, 3169-3169.	0.5	0
82	Radiation efficiency calculations for verification of boundary element acoustic codes. Noise Control Engineering Journal, 1996, 44, 215.	0.2	0
83	SOUND TRANSMISSION THROUGH MULTI-PANEL STRUCTURES LINED WITH ELASTIC POROUS MATERIALS. Journal of Sound and Vibration, 1996, 191, 317-347.	2.1	244
84	Optimal Design of Acoustical Foam Treatments. Journal of Vibration and Acoustics, Transactions of the ASME, 1996, 118, 498-504.	1.0	18
85	A finite element model for sound transmission through foamâ€lined doubleâ€panel structures. Journal of the Acoustical Society of America, 1996, 99, 2755-2765.	0.5	60
86	Design of low-noise centrifugal blowers--Part 1: Measurement and analysis procedures. Noise Control Engineering Journal, 1995, 43, 103.	0.2	1
87	Design of low-noise centrifugal blowers--Part 2: Optimization study. Noise Control Engineering Journal, 1995, 43, 117.	0.2	3
88	Correlation of Tire Intensity Levels and Passby Sound Pressure Levels. , 1995, , .		8
89	Acoustical Finite Element Model of Elastic Porous Materials. , 1995, , .		1
90	Finite element modeling of isotropic elastic porous materials coupled with acoustical finite elements. Journal of the Acoustical Society of America, 1995, 98, 635-643.	0.5	117

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91	Sound cancellation by the use of secondary multipoles. Journal of the Acoustical Society of America, 1995, 98, 2343-2362.	0.5	26
92	Sound Propagation from an Arbitrarily Oriented Multi-Pole Placed Near a Plane, Finite Impedance Surface. Journal of Sound and Vibration, 1994, 170, 637-669.	2.1	11
93	Normal incidence sound transmission through double-panel systems lined with relatively stiff, partially reticulated polyurethane foam. Applied Acoustics, 1993, 39, 23-51.	1.7	45
94	The Application of the Wigner Distribution to the Identification of Structure-borne Noise Components. Journal of Sound and Vibration, 1993, 163, 101-122.	2.1	49
95	The Use of the Wigner Distribution to Identify Wave-Types in Multi-Element Structures. , 1993, , .		2
96	The use of the discrete Fourier transform to calculate the spatial and temporal response of lineâ€driven, layerâ€wise homogeneous acoustically loaded panels. Journal of the Acoustical Society of America, 1992, 92, 1473-1488.	0.5	6
97	The Use of a Single-Parameter Model to Characterize the Condition of Asphalt Surfaces. Noise Control Engineering Journal, 1992, 38, 39.	0.2	0
98	Powertrain Sound Power Measurement Using a Two-Degree-of-Freedom Positioning Mechanism. , 1989, , .		0
99	The determination of acoustic reflection coefficients by using cepstral techniques, I: Experimental procedures and measurements of polyurethane foam. Journal of Sound and Vibration, 1986, 110, 179-202.	2.1	4
100	The determination of acoustic reflection coefficients by using cepstral techniques, II: Extensions of the technique and considerations of accuracy. Journal of Sound and Vibration, 1986, 110, 203-222.	2.1	4
101	The application of cepstral techniques to the measurement of transfer functions and acoustical reflection coefficients. Journal of Sound and Vibration, 1984, 93, 217-233.	2.1	16
102	Elastic Porous Materials for Sound Absorption and Transmission Control. , 0, , .		18
103	A Model Study of How Tire Construction and Materials Affect Vibration-Radiated Noise. , 0, , .		9
104	Two-Microphone Measurements of the Acoustical Properties of SAE and ISO Passby Surfaces in the Presence of Wind and Temperature Gradients. , 0, , .		0
105	The Design and Evaluation of Microphone Arrays for the Visualization of Noise Sources on Moving Vehicles. , 0, , .		3
106	An Efficient Procedure for Visualizing the Sound Field Radiated by Vehicles During Standardized Passby Tests. , 0, , .		2
107	Numerical Modeling of the Damping Effect of Fibrous Acoustical Treatments. , 0, , .		1
108	Sound Radiation Control Resulting from Tire Structural Vibration. , 0, , .		3

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109	Assessment of Absorbers in Normal-Incidence Four- Microphone Transmission-Loss Systems to Measure Effectiveness of Materials in Lateral-Flow Configurations of Filled or Partially Filled Cavities. , 0, , .		2
110	Reconstruction of Noise Source in a Ducted Fan Using a Generalized Nearfield Acoustical Holography. , 0, , .		2
111	Perception of Diesel Engine Gear Rattle Noise. SAE International Journal of Passenger Cars - Mechanical Systems, 0, 8, 1097-1103.	0.4	5
112	Structural Damping by the Use of Fibrous Materials. , 0, , .		3
113	Improved Model for Coupled Structural-Acoustic Modes of Tires. SAE International Journal of Passenger Cars - Mechanical Systems, 0, 8, 845-854.	0.4	9
114	The Application of Acoustic Radiation Modes to Engine Oil Pan Design. , 0, , .		3
115	A Desktop Procedure for Measuring the Transmission Loss of Automotive Door Seals. , 0, , .		0
116	Force Transmission Characteristics for a Loaded Structural-Acoustic Tire Model. SAE International Journal of Passenger Cars - Mechanical Systems, 0, 11, 305-319.	0.4	3
117	A Comparison of Near-Field Acoustical Holography Methods Applied to Noise Source Identification. , 0, , .		1
118	Design of Lightweight Fibrous Vibration Damping Treatments to Achieve Optimal Performance in Realistic Applications. , 0, , .		0
119	The Identification of Minimum Weight Sound Packages That Meet Specified Vehicle Interior Sound Pressure Levels. , 0, , .		0