

Brian R Mace

List of Publications by Year in descending order

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119
papers

5,553
citations

87843

38
h-index

88593

70
g-index

129
all docs

129
docs citations

129
times ranked

2398
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamic analysis of the response of Duffing-type oscillators subject to interacting parametric and external excitations. <i>Nonlinear Dynamics</i> , 2022, 107, 99-120.	2.7	8
2	Analysis of the forced response of coupled panels using a hybrid finite element/wave and finite element method. <i>Journal of Sound and Vibration</i> , 2022, 537, 117174.	2.1	4
3	Reflection of waves in a waveguide from a boundary with nonlinear stiffness: application to axial and flexural vibrations. <i>Nonlinear Dynamics</i> , 2022, 109, 3051-3082.	2.7	2
4	Ranking of sound transmission paths by wave and finite element analysis. <i>Journal of Sound and Vibration</i> , 2021, 492, 115765.	2.1	4
5	Analysis of the vibroacoustic characteristics of cross laminated timber panels using a wave and finite element method. <i>Journal of Sound and Vibration</i> , 2021, 494, 115842.	2.1	17
6	A wave and finite element method for calculating sound transmission through rectangular panels. <i>Mechanical Systems and Signal Processing</i> , 2021, 151, 107357.	4.4	8
7	Modeling and harmonic analysis of energy extracting performance of a piezoelectric nonlinear energy sink system with AC and DC interface circuits. <i>Mechanical Systems and Signal Processing</i> , 2021, 155, 107609.	4.4	12
8	Wave and vibration analysis of elastic metamaterial and phononic crystal beams with slowly varying properties. <i>Wave Motion</i> , 2021, 103, 102728.	1.0	17
9	Mode transition in a standing-wave thermoacoustic engine: A numerical study. <i>Journal of Sound and Vibration</i> , 2021, 504, 116119.	2.1	22
10	Multi-physics coupling in thermoacoustic devices: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 146, 111170.	8.2	74
11	Numerical investigation of synthetic jets driven by thermoacoustic standing waves. <i>International Journal of Heat and Mass Transfer</i> , 2020, 146, 118859.	2.5	27
12	On the behaviour of infinite, periodic, mono-coupled waveguides using a transmission coefficient phase method. <i>Mechanical Systems and Signal Processing</i> , 2020, 135, 106409.	4.4	6
13	Response of linear parametric amplifiers with arbitrary direct and parametric excitations. <i>Mechanics Research Communications</i> , 2020, 109, 103585.	1.0	3
14	Bistability and triggering in a thermoacoustic engine: A numerical study. <i>International Journal of Heat and Mass Transfer</i> , 2020, 157, 119951.	2.5	30
15	Vibration energy harvesting based on a piezoelectric nonlinear energy sink with synchronized charge extraction interface circuit. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 505502.	1.3	10
16	Sensitivity analysis of generalised eigenproblems and application to wave and finite element models. <i>Journal of Sound and Vibration</i> , 2020, 478, 115345.	2.1	7
17	On the response attainable in nonlinear parametrically excited systems. <i>Applied Physics Letters</i> , 2019, 115, 154102.	1.5	5
18	A wave and finite element based homogenised model for predicting sound transmission through honeycomb panels. <i>Journal of Sound and Vibration</i> , 2019, 463, 114963.	2.1	18

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19	Vibroacoustic analysis of periodic structures using a wave and finite element method. <i>Journal of Sound and Vibration</i> , 2019, 457, 333-353.	2.1	29
20	Sound transmission through cylindrical structures using a wave and finite element method. <i>Wave Motion</i> , 2019, 87, 58-74.	1.0	21
21	Modelling and analysis of a thermoacoustic-piezoelectric energy harvester. <i>Applied Thermal Engineering</i> , 2019, 150, 532-544.	3.0	53
22	Wave and finite element method for predicting sound transmission through finite multi-layered structures with fluid layers. <i>Computers and Structures</i> , 2018, 204, 20-30.	2.4	21
23	Broadband piezoelectric vibration energy harvesting using a nonlinear energy sink. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 185502.	1.3	55
24	Theoretical and experimental investigation of the dynamic behaviour of a standing-wave thermoacoustic engine with various boundary conditions. <i>International Journal of Heat and Mass Transfer</i> , 2018, 123, 367-381.	2.5	33
25	Estimating Power Spectral Density of Unmanned Aerial Vehicle Rotor Noise Using Multisensory Information. , 2018, , .		2
26	Improving Power Spectral Density Estimation of Unmanned Aerial Vehicle Rotor Noise by Learning from Non-Acoustic Information. , 2018, , .		5
27	A comprehensive study of 2:1 internal-resonance-based piezoelectric vibration energy harvesting. <i>Nonlinear Dynamics</i> , 2018, 91, 1817-1834.	2.7	68
28	Veering and Strong Coupling Effects in Structural Dynamics. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2017, 139, .	1.0	20
29	Prediction of sound transmission through, and radiation from, panels using a wave and finite element method. <i>Journal of the Acoustical Society of America</i> , 2017, 141, 2452-2460.	0.5	47
30	System identification and controller design for individual pitch and trailing edge flap control on upscaled wind turbines. <i>Wind Energy</i> , 2016, 19, 1073-1088.	1.9	7
31	Internal resonance with commensurability induced by an auxiliary oscillator for broadband energy harvesting. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	118
32	Application of the Wave and Finite Element Method to Calculate Sound Transmission Through Cylindrical Structures. <i>Journal of Physics: Conference Series</i> , 2016, 744, 012240.	0.3	4
33	A Robust Adaptive Tuned Vibration Absorber Using Semi-Passive Shunt Electronics. <i>IEEE Transactions on Industrial Electronics</i> , 2016, , 1-1.	5.2	11
34	Exploiting knowledge of jump-up and jump-down frequencies to determine the parameters of a Duffing oscillator. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2016, 37, 282-291.	1.7	17
35	Wave propagation in one-dimensional waveguides with slowly varying random spatially correlated variability. <i>Journal of Sound and Vibration</i> , 2015, 343, 20-48.	2.1	24
36	Discussion of "Dynamics of Phononic Materials and Structures: Historical Origins, Recent Progress and Future Outlook" (Hussein, M. I., Leamy, M. J., and Ruzzene, M., 2014, <i>ASME Appl. Mech. Rev.</i> , 66(4), p.)		0

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37	Calculating the forced response of cylinders and cylindrical shells using the wave and finite element method. <i>Journal of Sound and Vibration</i> , 2014, 333, 5340-5355.	2.1	34
38	Modal characterisation of recyclable foam sandwich panels. <i>Composite Structures</i> , 2014, 113, 362-368.	3.1	29
39	Vibration modelling of structural networks using a hybrid finite element/wave and finite element approach. <i>Wave Motion</i> , 2014, 51, 566-580.	1.0	29
40	A model-based tuned vibration absorber with adaptive shunt electronics. , 2013, , .		0
41	The loss-factor of pre-stressed laminated curved panels and cylinders using a wave and finite element method. <i>Journal of Sound and Vibration</i> , 2013, 332, 1704-1711.	2.1	21
42	Calculation of reflection and transmission coefficients of joints using a hybrid finite element/wave and finite element approach. <i>Journal of Sound and Vibration</i> , 2013, 332, 2149-2164.	2.1	72
43	Behaviour of fibre-reinforced honeycomb core under low velocity impact loading. <i>Composite Structures</i> , 2013, 100, 356-362.	3.1	57
44	Slow motor neuron stimulation of locust skeletal muscle: model and measurement. <i>Biomechanics and Modeling in Mechanobiology</i> , 2013, 12, 581-596.	1.4	3
45	A wave finite element analysis of the passive cochlea. <i>Journal of the Acoustical Society of America</i> , 2013, 133, 1535-1545.	0.5	33
46	A self-tuning electromagnetic vibration absorber with adaptive shunt electronics. <i>Smart Materials and Structures</i> , 2013, 22, 105013.	1.8	34
47	Special Issue on "Advances in Active Control of Sound and Vibration" Editorial. <i>Asian Journal of Control</i> , 2013, 15, 1563-1565.	1.9	0
48	A Finite Element Method for Modelling Waves in Laminated Structures. <i>Advances in Structural Engineering</i> , 2013, 16, 61-75.	1.2	16
49	Wave motion and dispersion phenomena: Veering, locking and strong coupling effects. <i>Journal of the Acoustical Society of America</i> , 2012, 131, 1015-1028.	0.5	136
50	On the performance of a dual-mode non-linear vibration energy harvesting device. <i>Journal of Intelligent Material Systems and Structures</i> , 2012, 23, 1423-1432.	1.4	31
51	A comparison of models of the isometric force of locust skeletal muscle in response to pulse train inputs. <i>Biomechanics and Modeling in Mechanobiology</i> , 2012, 11, 519-532.	1.4	10
52	Vibration modelling of helical springs with non-uniform ends. <i>Journal of Sound and Vibration</i> , 2012, 331, 2809-2823.	2.1	24
53	Subject-specific musculoskeletal parameters of wrist flexors and extensors estimated by an EMG-driven musculoskeletal model. <i>Medical Engineering and Physics</i> , 2012, 34, 531-540.	0.8	24
54	Calculating the forced response of two-dimensional homogeneous media using the wave and finite element method. <i>Journal of Sound and Vibration</i> , 2011, 330, 5913-5927.	2.1	33

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55	A tubular dielectric elastomer actuator: Fabrication, characterization and active vibration isolation. Mechanical Systems and Signal Processing, 2011, 25, 2879-2891.	4.4	83
56	Modelling the isometric force response to multiple pulse stimuli in locust skeletal muscle. Biological Cybernetics, 2011, 104, 121-136.	0.6	5
57	Modelling of spatial variations in vibration analysis with application to an automotive windshield. Finite Elements in Analysis and Design, 2011, 47, 55-62.	1.7	14
58	Formation and coupling of band gaps in a locally resonant elastic system comprising a string with attached resonators. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 1485-1491.	0.9	127
59	Influence of disturbances on the control of PC-mouse, goal-directed arm movements. Medical Engineering and Physics, 2010, 32, 974-984.	0.8	1
60	Isometric force generated by locust skeletal muscle: responses to single stimuli. Biological Cybernetics, 2010, 102, 503-511.	0.6	11
61	Potential benefits of a non-linear stiffness in an energy harvesting device. Nonlinear Dynamics, 2010, 59, 545-558.	2.7	364
62	Estimation of the loss factor of viscoelastic laminated panels from finite element analysis. Journal of Sound and Vibration, 2010, 329, 3928-3939.	2.1	65
63	On the forced response of waveguides using the wave and finite element method. Journal of Sound and Vibration, 2010, 329, 5474-5488.	2.1	76
64	Identifying joints from measured reflection coefficients in beam-like structures with application to a pipe support. Mechanical Systems and Signal Processing, 2010, 24, 784-795.	4.4	7
65	Active vibration control of periodic disturbances using a DEAP damper. Proceedings of SPIE, 2010, , .	0.8	8
66	A predictive model of the isometric force response of the locust extensor muscle. , 2010, 2010, 4517-20.		0
67	An EMG-driven musculoskeletal model for the estimation of biomechanical parameters of wrist flexors. , 2010, 2010, 4870-3.		3
68	Wave characterization of cylindrical and curved panels using a finite element method. Journal of the Acoustical Society of America, 2009, 125, 154-163.	0.5	86
69	Joint Uncertainty Propagation in Linear Structural Dynamics Using Stochastic Reduced Basis Methods. AIAA Journal, 2009, 47, 961-969.	1.5	17
70	Locating damage in waveguides from the phase of point frequency response measurements. Mechanical Systems and Signal Processing, 2009, 23, 405-414.	4.4	4
71	Acoustic response variability in automotive vehicles. Journal of Sound and Vibration, 2009, 321, 286-304.	2.1	31
72	Free and forced vibrations of a tyre using a wave/finite element approach. Journal of Sound and Vibration, 2009, 323, 737-756.	2.1	97

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73	Component mode synthesis as a framework for uncertainty analysis. Journal of Sound and Vibration, 2009, 324, 161-178.	2.1	66
74	Numerical issues concerning the wave and finite element method for free and forced vibrations of waveguides. Journal of Sound and Vibration, 2009, 327, 92-108.	2.1	151
75	A Model of Force Generation by Locust Skeletal Muscle in Response to Individual Stimuli. , 2009, , .		1
76	Modelling wave propagation in two-dimensional structures using finite element analysis. Journal of Sound and Vibration, 2008, 318, 884-902.	2.1	291
77	Comparison of convergence characteristics of adaptive IIR and FIR filters for active noise control in a duct. Applied Acoustics, 2007, 68, 729-738.	1.7	12
78	Wave propagation, reflection and transmission in non-uniform one-dimensional waveguides. Journal of Sound and Vibration, 2007, 304, 31-49.	2.1	64
79	Robust estimation of coupling loss factors from finite element analysis. Journal of Sound and Vibration, 2007, 303, 814-831.	2.1	17
80	Wave propagation, reflection and transmission in curved beams. Journal of Sound and Vibration, 2007, 306, 636-656.	2.1	74
81	Approaches to estimating the reflection and transmission coefficients of discontinuities in waveguides from measured data. Journal of Sound and Vibration, 2007, 307, 280-294.	2.1	10
82	Arbitrary active constrained layer damping treatments on beams: Finite element modelling and experimental validation. Computers and Structures, 2006, 84, 1384-1401.	2.4	42
83	A mode-based approach for the mid-frequency vibration analysis of coupled long- and short-wavelength structures. Journal of Sound and Vibration, 2006, 289, 148-170.	2.1	39
84	Finite element analysis of the vibrations of waveguides and periodic structures. Journal of Sound and Vibration, 2006, 294, 205-220.	2.1	254
85	Statistical energy analysis: coupling loss factors, indirect coupling and system modes. Journal of Sound and Vibration, 2005, 279, 141-170.	2.1	65
86	Adaptive active control of flexural waves in a beam in the presence of a nearfield. Journal of Sound and Vibration, 2005, 285, 149-171.	2.1	26
87	Wave component analysis of energy flow in complex structures – Part I: a deterministic model. Journal of Sound and Vibration, 2005, 285, 209-227.	2.1	22
88	A phenomenological model of active constrained layers. Journal of Sound and Vibration, 2005, 285, 281-302.	2.1	1
89	Suppression of bending waves in a beam using a tuned vibration absorber. Journal of Sound and Vibration, 2005, 288, 1157-1175.	2.1	33
90	Real-time control of a shape memory alloy adaptive tuned vibration absorber. Smart Materials and Structures, 2005, 14, 1184-1195.	1.8	56

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91	Finite element prediction of wave motion in structural waveguides. Journal of the Acoustical Society of America, 2005, 117, 2835-2843.	0.5	347
92	A hybrid mode/Fourier-transform approach for estimating the vibrations of beam-stiffened plate systems. Journal of Sound and Vibration, 2004, 274, 547-565.	2.1	18
93	Vibrational response prediction of a pneumatic tyre using an orthotropic two-plate wave model. Journal of Sound and Vibration, 2003, 264, 929-950.	2.1	26
94	Statistical energy analysis, energy distribution models and system modes. Journal of Sound and Vibration, 2003, 264, 391-409.	2.1	95
95	A power mode approach to estimating vibrational power transmitted by multiple sources. Journal of Sound and Vibration, 2003, 265, 387-399.	2.1	19
96	Low-frequency measurements and predictions of the structural-acoustic properties of the INCE standard T-beam structure. Noise Control Engineering Journal, 2002, 50, 90.	0.2	6
97	FEEDFORWARD ADAPTIVE CONTROL OF FLEXURAL VIBRATION IN A BEAM USING WAVE AMPLITUDES. Journal of Sound and Vibration, 2002, 254, 117-141.	2.1	21
98	Adaptive-passive control of vibration transmission in beams using electro/magnetorheological fluid filled inserts. IEEE Transactions on Control Systems Technology, 2001, 9, 209-220.	3.2	15
99	WAVE PROPAGATION, REFLECTION AND TRANSMISSION IN TUNABLE FLUID-FILLED BEAMS. Journal of Sound and Vibration, 2001, 241, 735-754.	2.1	31
100	A LOCAL MODAL/PERTURBATIONAL METHOD FOR ESTIMATING FREQUENCY RESPONSE STATISTICS OF BUILT-UP STRUCTURES WITH UNCERTAIN PROPERTIES. Journal of Sound and Vibration, 2001, 242, 793-811.	2.1	53
101	HYBRID WAVE/MODE ACTIVE VIBRATION CONTROL. Journal of Sound and Vibration, 2001, 247, 765-784.	2.1	33
102	Wave transmission through structural inserts. Journal of the Acoustical Society of America, 2001, 109, 1417-1421.	0.5	13
103	TIME DOMAIN ESTIMATION OF RESPONSE AND INTENSITY IN BEAMS USING WAVE DECOMPOSITION AND RECONSTRUCTION. Journal of Sound and Vibration, 2000, 230, 561-589.	2.1	29
104	ENERGY FLOW MODELS FROM FINITE ELEMENT ANALYSIS. Journal of Sound and Vibration, 2000, 233, 369-389.	2.1	129
105	THE VIBRATION OF PLATES ON TWO-DIMENSIONALLY PERIODIC POINT SUPPORTS. Journal of Sound and Vibration, 1996, 192, 629-643.	2.1	30
106	STATISTICAL ENERGY ANALYSIS OF TWO EDGE-COUPLED RECTANGULAR PLATES: ENSEMBLE AVERAGES. Journal of Sound and Vibration, 1996, 193, 793-822.	2.1	36
107	Structural intensity in beams's waves, transducer systems and the conditioning problem. Journal of Sound and Vibration, 1995, 185, 279-298.	2.1	25
108	On The Statistical Energy Analysis Hypothesis Of Coupling Power Proportionality And Some Implications Of Its Failure. Journal of Sound and Vibration, 1994, 178, 95-112.	2.1	37

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109	The Statistical Energy Analysis of Two Continuous One-Dimensional Subsystems. Journal of Sound and Vibration, 1993, 166, 429-461.	2.1	43
110	Power flow between two coupled beams. Journal of Sound and Vibration, 1992, 159, 305-325.	2.1	17
111	Power flow between two continuous one-dimensional subsystems: A wave solution. Journal of Sound and Vibration, 1992, 154, 289-319.	2.1	38
112	The statistics of power flow between two continuous one-dimensional subsystems. Journal of Sound and Vibration, 1992, 154, 321-341.	2.1	14
113	Active control of flexural vibrations. Journal of Sound and Vibration, 1987, 114, 253-270.	2.1	97
114	Wave reflection and transmission in beams. Journal of Sound and Vibration, 1984, 97, 237-246.	2.1	215
115	Sound radiation from fluid loaded orthogonally stiffened plates. Journal of Sound and Vibration, 1981, 79, 439-452.	2.1	83
116	Periodically stiffened fluid-loaded plates, II: Response to line and point forces. Journal of Sound and Vibration, 1980, 73, 487-504.	2.1	96
117	Sound radiation from a plate reinforced by two sets of parallel stiffeners. Journal of Sound and Vibration, 1980, 71, 435-441.	2.1	82
118	Periodically stiffened fluid-loaded plates, I: Response to convected harmonic pressure and free wave propagation. Journal of Sound and Vibration, 1980, 73, 473-486.	2.1	136
119	Wave propagation and response statistics of short fibre composites from experimental estimation of material properties. , 0, , .		0