Mingsian R Bai

List of Publications by Year
in descending order

85 papers	1,308 citations	430874 18 h-index	395702 33 g-index
102 all docs	102 docs citations	102 times ranked	693 citing authors

#	Article	IF	Citations
1	A Heterogeneous Unmanned Ground Vehicle and Blimp Robot Team for Search and Rescue using Data-driven Autonomy and Communication-aware Navigation. , 2022, 2, 557-594.		3
2	Feedforward active noise global control using a linearly constrained beamforming approach. Journal of Sound and Vibration, 2022, , 117190.	3.9	4
3	Acoustic modal analysis of room responses from the perspective of state-space balanced realization with application to field interpolation. Journal of the Acoustical Society of America, 2022, 152, 240-250.	1.1	0
4	A multichannel learning-based approach for sound source separation in reverberant environments. Eurasip Journal on Audio, Speech, and Music Processing, 2021, 2021, .	2.1	1
5	Audio enhancement and intelligent classification of household sound events using a sparsely deployed array. Journal of the Acoustical Society of America, 2020, 147, 11-24.	1.1	8
6	Robust binaural rendering with the time-domain underdetermined multichannel inverse prefilters. Journal of the Acoustical Society of America, 2019, 146, 1302-1313.	1.1	1
7	Active control of noise in a duct using the sparsely coded time-domain underdetermined multichannel inverse filters. Journal of the Acoustical Society of America, 2019, 146, 1371-1381.	1.1	5
8	Analysis and synthesis of three-dimensional sound fields using a hybrid microphone array and a 3-layered loudspeaker array. Journal of Sound and Vibration, 2019, 443, 666-682.	3.9	1
9	Active feedforward noise control and signal tracking of headsets: Electroacoustic analysis and system implementation. Journal of the Acoustical Society of America, 2018, 143, 1613-1622.	1.1	17
10	Time Difference of Arrival (TDOA)-Based Acoustic Source Localization and Signal Extraction for Intelligent Audio Classification. , 2018, , .		6
11	Iterative algorithm for solving acoustic source characterization problems under block sparsity constraints. Journal of the Acoustical Society of America, 2018, 143, 3747-3757.	1.1	15
12	A two-stage noise source identification technique based on a farfield random parametric array. Journal of the Acoustical Society of America, 2017, 141, 2978-2988.	1.1	4
13	Modeling of reverberant room responses for two-dimensional spatial sound field analysis and synthesis. Journal of the Acoustical Society of America, 2017, 142, 1953-1964.	1.1	4
14	Localization and separation of acoustic sources by using a 2.5-dimensional circular microphone array. Journal of the Acoustical Society of America, 2017, 142, 286-297.	1.1	9
15	Solution Strategies for Linear Inverse Problems in Spatial Audio Signal Processing. Applied Sciences (Switzerland), 2017, 7, 582.	2.5	14
16	Design and implementation of a space domain spherical microphone array with application to source localization and separation. Journal of the Acoustical Society of America, 2016, 139, 1058-1070.	1.1	9
17	Array model interpolation and subband iterative adaptive filters applied to beamforming-based acoustic echo cancellation. Journal of the Acoustical Society of America, 2016, 139, 863-874.	1.1	0
18	Impedance measurement techniques for one-port and two-port networks. Journal of the Acoustical Society of America, 2015, 138, 2279-2290.	1.1	3

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19	An Application of Miniature Microphone Arrays to Stereophonic Recording Compatible to Conventional Practice. AES: Journal of the Audio Engineering Society, 2015, 63, 267-279.	1.0	0
20	Acoustic Source Localization and Deconvolution-Based Separation. Journal of Computational Acoustics, 2015, 23, 1550008.	1.0	6
21	An integrated analysis-synthesis array system for spatial sound fields. Journal of the Acoustical Society of America, 2015, 137, 1366-1376.	1.1	3
22	Point focusing using loudspeaker arrays from the perspective of optimal beamforming. Journal of the Acoustical Society of America, 2015, 137, 3393-3410.	1.1	11
23	Spatial sound field synthesis and upmixing based on the equivalent source method. Journal of the Acoustical Society of America, 2014, 135, 269-282.	1.1	10
24	Regularization using Monte Carlo simulation to make optimal beamformers robust to system perturbations. Journal of the Acoustical Society of America, 2014, 135, 2808-2820.	1.1	11
25	Investigation on the reproduction performance versus acoustic contrast control in sound field synthesis. Journal of the Acoustical Society of America, 2014, 136, 1591-1600.	1.1	8
26	Electroacoustic analysis, design, and implementation of a small balanced armature speaker. Journal of the Acoustical Society of America, 2014, 136, 2554-2560.	1.1	5
27	Farfield and Nearfield Source Identification for Machine Tools Using Microphone Array Imaging Systems. Procedia Engineering, 2014, 79, 345-354.	1.2	0
28	Adaptive Sub-Band Acoustic Echo Cancellation Algorithms for Echo Paths Involving Nonlinear Amplifiers and Transducers. Asian Journal of Control, 2013, 15, 1655-1665.	3.0	1
29	Application of convex optimization to acoustical array signal processing. Journal of Sound and Vibration, 2013, 332, 6596-6616.	3.9	20
30	Particle velocity estimation based on a two-microphone array and Kalman filter. Journal of the Acoustical Society of America, 2013, 133, 1425-1432.	1.1	6
31	Bayesian approach of nearfield acoustic reconstruction with particle filters. Journal of the Acoustical Society of America, 2013, 133, 4032-4043.	1.1	4
32	Refined acoustic modeling and analysis of shotgun microphones. Journal of the Acoustical Society of America, 2013, 133, 2036-2045.	1.1	5
33	Special Issue on "Advances in Active Control of Sound and Vibration" Editorial. Asian Journal of Control, 2013, 15, 1563-1565.	3.0	0
34	Optimal two-layer directive microphone array with application in near-field acoustical holography. Journal of the Acoustical Society of America, 2012, 132, 862-871.	1.1	5
35	Kalman filter-based microphone array signal processing using the equivalent source model. Journal of Sound and Vibration, 2012, 331, 4940-4955.	3.9	8
36	Impact localization combined with haptic feedback for touch panel applications based on the time-reversal approach. Journal of the Acoustical Society of America, 2011, 129, 1297-1305.	1.1	36

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37	Implementation issues of the nearfield equivalent source imaging microphone array. Journal of Sound and Vibration, 2011, 330, 545-558.	3.9	13
38	On optimal retreat distance for the equivalent source method-based nearfield acoustical holography. Journal of the Acoustical Society of America, 2011, 129, 1407-1416.	1.1	32
39	Optimized microphone deployment for near-field acoustic holography: To be, or not to be random, that is the question. Journal of Sound and Vibration, 2010, 329, 2809-2824.	3.9	25
40	Speech enhancement using an equivalent source inverse filtering-based microphone array. Journal of the Acoustical Society of America, 2010, 127, 1373-1380.	1.1	3
41	Experimental modeling and design optimization of push-pull electret loudspeakers. Journal of the Acoustical Society of America, 2010, 127, 2274-2281.	1.1	23
42	Expert diagnostic system for moving-coil loudspeakers using nonlinear modeling. Journal of the Acoustical Society of America, 2009, 125, 819-830.	1.1	7
43	Electroacoustic analysis of an electret loudspeaker using combined finite-element and lumped-parameter models. Journal of the Acoustical Society of America, 2009, 125, 3632-3640.	1.1	23
44	A study of fault diagnosis in a scooter using adaptive order tracking technique and neural network. Expert Systems With Applications, 2009, 36, 49-56.	7.6	14
45	An expert system for the diagnosis of faults in rotating machinery using adaptive order-tracking algorithm. Expert Systems With Applications, 2009, 36, 5424-5431.	7.6	31
46	Design and implementation of a hybrid sub-band acoustic echo canceller (AEC). Journal of Sound and Vibration, 2009, 321, 1069-1089.	3.9	3
47	Multirate synthesis of reverberators using subband filtering. Journal of Sound and Vibration, 2009, 321, 1090-1108.	3.9	6
48	Optimal design of minimum mean-square error noise reduction algorithms using the simulated annealing technique. Journal of the Acoustical Society of America, 2009, 125, 934-943.	1.1	3
49	Comparative study of audio spatializers for dual-loudspeaker mobile phones. Journal of the Acoustical Society of America, 2007, 121, 298-309.	1.1	5
50	Optimal design of resonant piezoelectric buzzer from a perspective of vibration-absorber theory. Journal of the Acoustical Society of America, 2007, 122, 1568-1580.	1.1	6
51	Upmixing and Downmixing Two-Channel Stereo Audio for Consumer Electronics. , 2007, , .		1
52	Integration of a Quantitative Feedback Theory (QFT)-Based Active Noise Canceller and 3D Audio Processor to Headsets. Journal of Vibration and Acoustics, Transactions of the ASME, 2007, 129, 567-576.	1.6	2
53	Upmixing and Downmixing Two-channel Stereo Audio for Consumer Electronics. IEEE Transactions on Consumer Electronics, 2007, 53, 1011-1019.	3.6	30
54	Development of an expert system for fault diagnosis in scooter engine platform using fuzzy-logic inference. Expert Systems With Applications, 2007, 33, 1063-1075.	7.6	46

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55	Source identification system based on the time-domain nearfield equivalence source imaging: Fundamental theory and implementation. Journal of Sound and Vibration, 2007, 307, 202-225.	3.9	53
56	Upmixing and Downmixing Two-Channel Stereo Audio for Consumer Electronics. , 2007, , .		0
57	Development and implementation of cross-talk cancellation system in spatial audio reproduction based on subband filtering. Journal of Sound and Vibration, 2006, 290, 1269-1289.	3.9	8
58	Objective and subjective analysis of effects of listening angle on crosstalk cancellation in spatial sound reproduction. Journal of the Acoustical Society of America, 2006, 120, 1976-1989.	1.1	26
59	Fault diagnosis of rotating machinery using an intelligent order tracking system. Journal of Sound and Vibration, 2005, 280, 699-718.	3.9	69
60	Head-related transfer function (HRTF) synthesis based on a three-dimensional array model and singular value decomposition. Journal of Sound and Vibration, 2005, 281, 1093-1115.	3.9	9
61	Optimal design of loudspeaker arrays for robust cross-talk cancellation using the Taguchi method and the genetic algorithm. Journal of the Acoustical Society of America, 2005, 117, 2802-2813.	1.1	35
62	Microphone array signal processing with application in three-dimensional spatial hearing. Journal of the Acoustical Society of America, 2005, 117, 2112-2121.	1.1	10
63	Determination of optimal exciter deployment for panel speakers using the genetic algorithm. Journal of Sound and Vibration, 2004, 269, 727-743.	3.9	12
64	Optimization and implementation of piezoelectric radiators using the genetic algorithm. Journal of the Acoustical Society of America, 2003, 113, 3197.	1.1	4
65	A Ring Silencer Design for Reducing Noise of Axial Fan. Fluctuation and Noise Letters, 2003, 03, L259-L264.	1.5	1
66	Broadband Spatially Feedforward Active Noise Control Algorithms Using a Comb Filter. Journal of Vibration and Acoustics, Transactions of the ASME, 2003, 125, 18-23.	1.6	0
67	Optimal design of panel speaker array with omnidirectional characteristics. Journal of the Acoustical Society of America, 2002, 112, 1944-1952.	1.1	4
68	Reduction of electronic delay in active noise control systems— A multirate signal processing approach. Journal of the Acoustical Society of America, 2002, 111, 916-924.	1.1	17
69	Synthesis of a robust broadband duct ANC system using convex programming approach. Journal of the Acoustical Society of America, 2002, 111, 1751-1757.	1.1	2
70	Estimation of sound power of baffled planar sources using radiation matrices. Journal of the Acoustical Society of America, 2002, 112, 876-883.	1.1	37
71	Analysis and DSP Implementation of a Broadband Duct ANC System Using Spatially Feedforward Structure. Journal of Vibration and Acoustics, Transactions of the ASME, 2001, 123, 129-136.	1.6	4
72	Effects of Directional Microphone and Transducer in Spatially Feedforward Active Noise Control System. Japanese Journal of Applied Physics, 2001, 40, 6133-6137.	1.5	5

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73	Development of panel loudspeaker system: Design, evaluation and enhancement. Journal of the Acoustical Society of America, 2001, 109, 2751-2761.	1.1	33
74	ACTIVE CANCELLATION OF NOISE IN A CAR CABIN USING THE ZERO SPILLOVER CONTROLLER. Journal of Sound and Vibration, 2000, 235, 787-800.	3.9	4
75	Digital Signal Processor Implementation of Active Noise Control Systems for Broadband Noise Cancellation in Engine Exhaust Systems. Japanese Journal of Applied Physics, 2000, 39, 4982-4986.	1.5	10
76	Robust control of a sensorless bass-enhanced moving-coil loudspeaker system. Journal of the Acoustical Society of America, 1999, 105, 3283-3289.	1.1	17
77	Plant uncertainty analysis in a duct active noise control problem by using the $H\hat{a}\check{z}$ theory. Journal of the Acoustical Society of America, 1998, 104, 237-247.	1.1	16
78	Study of the acoustic feedback problem of active noise control by using the l1 and l2 vector space optimization approaches. Journal of the Acoustical Society of America, 1997, 102, 1004-1012.	1.1	8
79	Implementation of an active headset by using the $H\hat{a}\check{z}$ robust control theory. Journal of the Acoustical Society of America, 1997, 102, 2184-2190.	1.1	42
80	Active noise control of enclosed harmonic fields by using BEM-based optimization techniques. Applied Acoustics, 1996, 48, 15-32.	3.3	14
81	Active noise cancellation by using the linear quadratic Gaussian independent modal space control. Journal of the Acoustical Society of America, 1995, 97, 2664-2674.	1.1	12
82	Acoustical source characterization by using recursive Wiener filtering. Journal of the Acoustical Society of America, 1995, 97, 2657-2663.	1.1	18
83	Free vibration of a thin spherical shell containing a compressible fluid. Journal of the Acoustical Society of America, 1994, 95, 3300-3310.	1.1	12
84	Study of acoustic resonance in enclosures using eigenanalysis based on boundary element methods. Journal of the Acoustical Society of America, 1992, 91, 2529-2538.	1.1	12
85	Application of BEM (boundary element method)â€‌based acoustic holography to radiation analysis of sound sources with arbitrarily shaped geometries. Journal of the Acoustical Society of America, 1992, 92, 533-549.	1.1	281