Jingdong Chen

List of Publications by Year
in descending order

113 papers	3,638 citations	201674 27 h-index	149698 56 g-index
116 all docs	116 docs citations	116 times ranked	1701 citing authors

#	Article	IF	Citations
1	New insights into the noise reduction Wiener filter. IEEE Transactions on Audio Speech and Language Processing, 2006, 14, 1218-1234.	3.2	464
2	On the Importance of the Pearson Correlation Coefficient in Noise Reduction. IEEE Transactions on Audio Speech and Language Processing, 2008, 16, 757-765.	3.2	266
3	Time Delay Estimation in Room Acoustic Environments: An Overview. Eurasip Journal on Advances in Signal Processing, 2006, 2006, 1.	1.7	203
4	Time-Delay Estimation via Linear Interpolation and Cross Correlation. IEEE Transactions on Speech and Audio Processing, 2004, 12, 509-519.	1.5	181
5	On Microphone-Array Beamforming From a MIMO Acoustic Signal Processing Perspective. IEEE Transactions on Audio Speech and Language Processing, 2007, 15, 1053-1065.	3.2	118
6	Robust time delay estimation exploiting redundancy among multiple microphones. IEEE Transactions on Speech and Audio Processing, 2003, 11, 549-557.	1.5	114
7	On the Design of Frequency-Invariant Beampatterns With Uniform Circular Microphone Arrays. IEEE/ACM Transactions on Audio Speech and Language Processing, 2017, 25, 1140-1153.	5.8	106
8	An Integrated Solution for Online Multichannel Noise Tracking and Reduction. IEEE Transactions on Audio Speech and Language Processing, 2011, 19, 2159-2169.	3.2	95
9	Study and Design of Differential Microphone Arrays. Springer Topics in Signal Processing, 2013, , .	0.2	87
10	On the design and implementation of linear differential microphone arrays. Journal of the Acoustical Society of America, 2014, 136, 3097-3113.	1.1	86
11	Design of Circular Differential Microphone Arrays. Springer Topics in Signal Processing, 2015, , .	0.2	83
12	Time Delay Estimation via Minimum Entropy. IEEE Signal Processing Letters, 2007, 14, 157-160.	3.6	73
13	Insights Into Frequency-Invariant Beamforming With Concentric Circular Microphone Arrays. IEEE/ACM Transactions on Audio Speech and Language Processing, 2018, 26, 2305-2318.	5.8	69
14	Gaussian Model-Based Multichannel Speech Presence Probability. IEEE Transactions on Audio Speech and Language Processing, 2010, 18, 1072-1077.	3.2	67
15	Performance Study of the MVDR Beamformer as a Function of the Source Incidence Angle. IEEE/ACM Transactions on Audio Speech and Language Processing, 2014, 22, 67-79.	5.8	66
16	Theoretical Analysis of Differential Microphone Array Beamforming and an Improved Solution. IEEE/ACM Transactions on Audio Speech and Language Processing, 2015, 23, 2093-2105.	5.8	50
17	A Simple Theory and New Method of Differential Beamforming With Uniform Linear Microphone Arrays. IEEE/ACM Transactions on Audio Speech and Language Processing, 2020, 28, 1079-1093.	5.8	50
18	Array Processing. Springer Topics in Signal Processing, 2019, , .	0.2	47

#	Article	IF	Citations
19	Design of Robust Differential Microphone Arrays. IEEE/ACM Transactions on Audio Speech and Language Processing, 2014, 22, 1455-1466.	5.8	46
20	Fundamentals of Differential Beamforming. Springer Briefs in Electrical and Computer Engineering, 2016, , .	0.5	44
21	Design of robust concentric circular differential microphone arrays. Journal of the Acoustical Society of America, 2017, 141, 3236-3249.	1.1	44
22	Design and Experimental Analysis of Dual-Band Polarization Converting Metasurface. IEEE Antennas and Wireless Propagation Letters, 2021, 20, 1409-1413.	4.0	38
23	Fundamentals of Noise Reduction. , 2008, , 843-872.		33
24	A flexible high directivity beamformer with spherical microphone arrays. Journal of the Acoustical Society of America, 2018, 143, 3024-3035.	1.1	29
25	Differential Kronecker Product Beamforming. IEEE/ACM Transactions on Audio Speech and Language Processing, 2019, 27, 892-902.	5.8	29
26	Steering Study of Linear Differential Microphone Arrays. IEEE/ACM Transactions on Audio Speech and Language Processing, 2021, 29, 158-170.	5.8	29
27	Design of Planar Differential Microphone Arrays With Fractional Orders. IEEE/ACM Transactions on Audio Speech and Language Processing, 2020, 28, 116-130.	5.8	28
28	Time Difference of Arrival Estimation Exploiting Multichannel Spatio-Temporal Prediction. IEEE Transactions on Audio Speech and Language Processing, 2013, 21, 463-475.	3.2	27
29	Superdirective Beamforming Based on the Krylov Matrix. IEEE/ACM Transactions on Audio Speech and Language Processing, 2016, 24, 2531-2543.	5.8	27
30	On the design of differential beamformers with arbitrary planar microphone array geometry. Journal of the Acoustical Society of America, 2018, 144, EL66-EL70.	1.1	27
31	Design and experimental analysis of dual-band polarization converting metasurface for microwave applications. Scientific Reports, 2020, 10, 15393.	3.3	27
32	Design of robust differential microphone arrays with the Jacobiâ€"Anger expansion. Applied Acoustics, 2016, 110, 194-206.	3.3	26
33	Wideband Fabryâ€"Perot Resonator Antenna Employing Multilayer Partially Reflective Surface. IEEE Transactions on Antennas and Propagation, 2021, 69, 2404-2409.	5.1	26
34	Affine Combination of Diffusion Strategies Over Networks. IEEE Transactions on Signal Processing, 2020, 68, 2087-2104.	5.3	24
35	A Family of Maximum SNR Filters for Noise Reduction. IEEE/ACM Transactions on Audio Speech and Language Processing, 2014, 22, 2034-2047.	5.8	23
36	Robust Dereverberation With Kronecker Product Based Multichannel Linear Prediction. IEEE Signal Processing Letters, 2021, 28, 101-105.	3.6	23

#	Article	IF	Citations
37	Design of robust differential microphone arrays with orthogonal polynomials. Journal of the Acoustical Society of America, 2015, 138, 1079-1089.	1.1	22
38	Design and Analysis of an Ultraminiaturized FSS Using 2.5-D Convoluted Square Spirals. IEEE Transactions on Antennas and Propagation, 2020, 68, 2919-2925.	5.1	22
39	Acoustic Source Localization Based on Geometric Projection in Reverberant and Noisy Environments. IEEE Journal on Selected Topics in Signal Processing, 2019, 13, 143-155.	10.8	21
40	Time Difference of Arrival Estimation Based on a Kronecker Product Decomposition. IEEE Signal Processing Letters, 2021, 28, 51-55.	3.6	20
41	Robust and steerable kronecker product differential beamforming With rectangular microphone arrays. , 2020, , .		19
42	Kronecker Product Multichannel Linear Filtering for Adaptive Weighted Prediction Error-Based Speech Dereverberation. IEEE/ACM Transactions on Audio Speech and Language Processing, 2022, 30, 1277-1289.	5.8	19
43	Study of nonuniform linear differential microphone arrays with the minimum-norm filter. Applied Acoustics, 2015, 98, 62-69.	3.3	18
44	Window-Based Constant Beamwidth Beamformer. Sensors, 2019, 19, 2091.	3.8	18
45	Synthesis of Ultraminiaturized Frequency-Selective Surfaces Utilizing 2.5-D Tapered Meandering Lines. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 163-167.	4.0	17
46	Continuously steerable differential beamformers with null constraints for circular microphone arrays. Journal of the Acoustical Society of America, 2020, 148, 1248-1258.	1.1	17
47	Robust blind identification of room acoustic channels in symmetric alpha-stable distributed noise environments. Journal of the Acoustical Society of America, 2014, 136, 693-704.	1.1	16
48	Broadbeam Cylindrical Dielectric Resonator Antenna. IEEE Access, 2019, 7, 112653-112661.	4.2	16
49	Differential Beamforming on Graphs. IEEE/ACM Transactions on Audio Speech and Language Processing, 2020, 28, 901-913.	5.8	16
50	Direction-of-arrival estimation of passive acoustic sources in reverberant environments based on the Householder transformation. Journal of the Acoustical Society of America, 2015, 138, 3053-3060.	1.1	15
51	Reduced-Order Robust Superdirective Beamforming With Uniform Linear Microphone Arrays. IEEE/ACM Transactions on Audio Speech and Language Processing, 2016, 24, 1548-1559.	5.8	15
52	On Robust and High Directive Beamforming With Small-Spacing Microphone Arrays for Scattered Sources. IEEE/ACM Transactions on Audio Speech and Language Processing, 2019, 27, 842-852.	5.8	15
53	On the Robustness of the Superdirective Beamformer. IEEE/ACM Transactions on Audio Speech and Language Processing, 2021, 29, 838-849.	5.8	15
54	Beamforming with Cube Microphone Arrays Via Kronecker Product Decompositions. IEEE/ACM Transactions on Audio Speech and Language Processing, 2021, 29, 1774-1784.	5.8	15

#	Article	IF	Citations
55	On the Design of Flexible Kronecker Product Beamformers with Linear Microphone Arrays. , 2019, , .		14
56	Partial AUC Optimization Based Deep Speaker Embeddings with Class-Center Learning for Text-Independent Speaker Verification. , 2020, , .		14
57	Kronecker Product Beamforming with Multiple Differential Microphone Arrays. , 2020, , .		13
58	Design of Directivity Patterns with a Unique Null of Maximum Multiplicity. IEEE/ACM Transactions on Audio Speech and Language Processing, 2016, 24, 226-235.	5.8	12
59	Dereverberation with Differential Microphone Arrays and the Weighted-Prediction-Error Method. , 2018, , .		12
60	On the Design of Target Beampatterns for Differential Microphone Arrays. IEEE/ACM Transactions on Audio Speech and Language Processing, 2019, 27, 1295-1307.	5.8	12
61	Speaker Verification by Partial AUC Optimization With Mahalanobis Distance Metric Learning. IEEE/ACM Transactions on Audio Speech and Language Processing, 2020, 28, 1533-1548.	5.8	12
62	Model-based distributed node clustering and multi-speaker speech presence probability estimation in wireless acoustic sensor networks. Journal of the Acoustical Society of America, 2020, 147, 4189-4201.	1.1	12
63	End-to-End Speaker Verification via Curriculum Bipartite Ranking Weighted Binary Cross-Entropy. IEEE/ACM Transactions on Audio Speech and Language Processing, 2022, 30, 1330-1344.	5.8	10
64	A multistage minimum variance distortionless response beamformer for noise reduction. Journal of the Acoustical Society of America, 2015, 137, 1377-1388.	1.1	9
65	Wide 3-dB beamwidth step-walled rectangular dielectric resonator antenna. Journal of Electromagnetic Waves and Applications, 2020, 34, 349-361.	1.6	9
66	On time delay estimation from a sparse linear prediction perspective. Journal of the Acoustical Society of America, 2015, 137, 1044-1047.	1.1	8
67	Beamforming based on null-steering with small spacing linear microphone arrays. Journal of the Acoustical Society of America, 2018, 143, 2651-2665.	1.1	8
68	Steerable differential beamformers with planar microphone arrays. Eurasip Journal on Audio, Speech, and Music Processing, 2020, 2020, .	2.1	8
69	Beamforming With Small-Spacing Microphone Arrays Using Constrained/Generalized LASSO. IEEE Signal Processing Letters, 2020, 27, 356-360.	3.6	8
70	Convex Combination of Diffusion Strategies Over Networks. IEEE Transactions on Signal and Information Processing Over Networks, 2020, 6, 714-731.	2.8	8
71	Broad-band and broad-angle linear and circular polarization converting metasurface. Journal of Electromagnetic Waves and Applications, 2022, 36, 1102-1112.	1.6	8
72	Subspace superdirective beamforming with uniform circular microphone arrays. , 2016, , .		7

#	Article	IF	Citations
73	Robust multichannel TDOA estimation for speaker localization using the impulsive characteristics of speech spectrum. , 2017, , .		7
74	Heterophasic Binaural Differential Beamforming for Speech Intelligibility Improvement. IEEE Transactions on Vehicular Technology, 2020, 69, 13497-13509.	6.3	7
75	Array Beamforming with Linear Difference Equations. Springer Topics in Signal Processing, 2021, , .	0.2	7
76	On the Design of 3D Steerable Beamformers With Uniform Concentric Circular Microphone Arrays. IEEE/ACM Transactions on Audio Speech and Language Processing, 2021, 29, 2764-2778.	5.8	7
77	Microphone array beamforming based on maximization of the front-to-back ratio. Journal of the Acoustical Society of America, 2018, 144, 3450-3464.	1.1	6
78	Cosine metric learning based speaker verification. Speech Communication, 2020, 118, 10-20.	2.8	6
79	On a Particular Family of Differential Beamformers With Cardioid-Like and No-Null Patterns. IEEE Signal Processing Letters, 2021, 28, 140-144.	3.6	6
80	Robust Pressure Matching with ATF Perturbation Constraints for Sound Field Control. , 2022, , .		6
81	Noise Robust Frequency-Domain Adaptive Blind Multichannel Identification With ℓ_p-Norm Constraint. IEEE/ACM Transactions on Audio Speech and Language Processing, 2018, 26, 1608-1619.	5.8	5
82	A class of multichannel sparse linear prediction algorithms for time delay estimation of speech sources. Signal Processing, 2020, 169, 107395.	3.7	5
83	Online Proximal Learning Over Jointly Sparse Multitask Networks With $\ell_{\infty, 1}$ Regularization. IEEE Transactions on Signal Processing, 2020, 68, 6319-6335.	5.3	5
84	Generalized combined nonlinear adaptive filters: From the perspective of diffusion adaptation over networks. Signal Processing, 2020, 172, 107507.	3.7	5
85	A New Method to Design Steerable First-Order Differential Beamformers. IEEE Signal Processing Letters, 2021, 28, 563-567.	3.6	5
86	Differential Beamforming From the Beampattern Factorization Perspective. IEEE/ACM Transactions on Audio Speech and Language Processing, 2021, 29, 632-643.	5.8	5
87	A Speech Enhancement System for Automotive Speech Recognition with a Hybrid Voice Activity Detection Method. , 2018, , .		4
88	On microphone array beamforming and insights into the underlying signal models in the short-time-Fourier-transform domain. Journal of the Acoustical Society of America, 2021, 149, 660-672.	1.1	4
89	A Single-Input/Binaural-Output Antiphasic Speech Enhancement Method for Speech Intelligibility Improvement. IEEE Signal Processing Letters, 2021, 28, 1445-1449.	3.6	4
90	On the Design of Square Differential Microphone Arrays with a Multistage Structure. , 2021, , .		4

#	ARTICLE	IF	CITATIONS
91	Microphone Array Beamforming With High Flexible Interference Attenuation and Noise Reduction. IEEE/ACM Transactions on Audio Speech and Language Processing, 2022, 30, 1865-1876.	5.8	4
92	A Single-Channel Noise Reduction Filtering/Smoothing Technique in the Time Domain. , 2018, , .		3
93	Design of Optimal Linear Differential Microphone Arrays Based Array Geometry Optimization. , 2019, , .		3
94	On the compromise between noise reduction and speech/noise spatial information preservation in binaural speech enhancement. Journal of the Acoustical Society of America, 2021, 149, 3151-3162.	1.1	3
95	A New Class of Differential Beamformers. IEEE/ACM Transactions on Audio Speech and Language Processing, 2021, 29, 594-606.	5.8	3
96	Binaural Heterophasic Superdirective Beamforming. Sensors, 2021, 21, 74.	3.8	3
97	Recursive Variable Span Linear Filter for Noise Reduction. IEEE Signal Processing Letters, 2019, 26, 1902-1906.	3.6	2
98	Planar Array Geometry Optimization for Region Sound Acquisition. , 2021, , .		2
99	A Simplified Wiener Beamformer Based on Covariance Matrix Modelling. , 2021, , .		2
100	2.5-D Partially Reflective Surface for Resonant Cavity Antennas: Design and Synthesis. IEEE Transactions on Antennas and Propagation, 2021, 69, 3771-3777.	5.1	2
101	DNN Based Multiframe Single-Channel Noise Reduction Filters. , 2022, , .		2
102	On Differential Beamforming With Nonuniform Linear Microphone Arrays. IEEE/ACM Transactions on Audio Speech and Language Processing, 2022, 30, 1840-1852.	5.8	2
103	A Front-End Speech Enhancement System for Robust Automotive Speech Recognition. , 2018, , .		1
104	Generalized Combined Nonlinear Adaptive Filters for Nonlinear Acoustic Echo Cancellation. , 2019, , .		1
105	On Estimation of Time-Varying Variances of Source and Noise for Sensor Array Processing. IEEE/ACM Transactions on Audio Speech and Language Processing, 2020, 28, 2865-2879.	5.8	1
106	Robust Frequency-Domain Recursive Least M-Estimate Adaptive Filter For Acoustic System Identification. , 2020, , .		1
107	An Improved Solution to the Frequency-Invariant Beamforming with Concentric Circular Microphone Arrays. , 2020, , .		1
108	Robust Steerable Differential Beamformers with Null Constraints for Concentric Circular Microphone Arrays. , 2021, , .		1

#	ARTICLE	IF	CITATIONS
109	Combined Differential Beamforming With Uniform Linear Microphone Arrays. , 2021, , .		1
110	Study of the Null Directions on The Performance of Differential Beamformers. , 2022, , .		1
111	Investigation on Broadbeam Acute Isosceles Triangular Dielectric Resonator Antenna. , 2019, , .		0
112	Robust Source Separation with Differential Microphone Arrays and Independent Low-Rank Matrix Analysis. , 2021, , .		0
113	Broadbeam Acute Isosceles Triangular Dielectric Resonator Antenna. , 2019, , .		0