Wenwu Wang

List of Publications by Year
in descending order

88 papers	1,711 citations	331670 21 h-index	330143 37 g-index
89 all docs	89 docs citations	89 times ranked	1022 citing authors

#	Article	IF	Citations
1	PANNs: Large-Scale Pretrained Audio Neural Networks for Audio Pattern Recognition. IEEE/ACM Transactions on Audio Speech and Language Processing, 2020, 28, 2880-2894.	5.8	380
2	Simultaneous Codeword Optimization (SimCO) for Dictionary Update and Learning. IEEE Transactions on Signal Processing, 2012, 60, 6340-6353.	5.3	102
3	Penalty function-based joint diagonalization approach for convolutive blind separation of nonstationary sources. IEEE Transactions on Signal Processing, 2005, 53, 1654-1669.	5.3	60
4	A Multiplicative Algorithm for Convolutive Non-Negative Matrix Factorization Based on Squared Euclidean Distance. IEEE Transactions on Signal Processing, 2009, 57, 2858-2864.	5.3	54
5	Audio Assisted Robust Visual Tracking With Adaptive Particle Filtering. IEEE Transactions on Multimedia, 2015, 17, 186-200.	7.2	54
6	Audiovisual Speech Source Separation: An overview of key methodologies. IEEE Signal Processing Magazine, 2014, 31, 125-134.	5.6	49
7	Localization based stereo speech source separation using probabilistic time-frequency masking and deep neural networks. Eurasip Journal on Audio, Speech, and Music Processing, 2016, 2016, .	2.1	39
8	Analysis SimCO Algorithms for Sparse Analysis Model Based Dictionary Learning. IEEE Transactions on Signal Processing, 2016, 64, 417-431.	5.3	38
9	Exploitation of source nonstationarity in underdetermined blind source separation with advanced clustering techniques. IEEE Transactions on Signal Processing, 2006, 54, 2198-2212.	5.3	35
10	Social Force Model-Based MCMC-OCSVM Particle PHD Filter for Multiple Human Tracking. IEEE Transactions on Multimedia, 2017, 19, 725-739.	7.2	35
11	Joint Mixing Vector and Binaural Model Based Stereo Source Separation. IEEE/ACM Transactions on Audio Speech and Language Processing, 2014, 22, 1434-1448.	5.8	34
12	Variable step-size sign natural gradient algorithm for sequential blind source separation. IEEE Signal Processing Letters, 2005, 12, 589-592.	3.6	33
13	Video Assisted Speech Source Separation. , 0, , .		32
14	Sparse analysis model based multiplicative noise removal with enhanced regularization. Signal Processing, 2017, 137, 160-176.	3.7	30
15	Robust Multi-Speaker Tracking via Dictionary Learning and Identity Modeling. IEEE Transactions on Multimedia, 2014, 16, 864-880.	7.2	28
16	Mean-Shift and Sparse Sampling-Based SMC-PHD Filtering for Audio Informed Visual Speaker Tracking. IEEE Transactions on Multimedia, 2016, 18, 2417-2431.	7.2	28
17	Video-Aided Model-Based Source Separation in Real Reverberant Rooms. IEEE Transactions on Audio Speech and Language Processing, 2013, 21, 1900-1912.	3.2	26
18	Reverberant speech separation with probabilistic time–frequency masking for B-format recordings. Speech Communication, 2015, 68, 41-54.	2.8	26

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19	Sparse coding with adaptive dictionary learning for underdetermined blind speech separation. Speech Communication, 2013, 55, 432-450.	2.8	25
20	Two-Stage Monaural Source Separation in Reverberant Room Environments Using Deep Neural Networks. IEEE/ACM Transactions on Audio Speech and Language Processing, 2019, 27, 125-139.	5.8	25
21	A multistage approach to blind separation of convolutive speech mixtures. Speech Communication, 2011, 53, 524-539.	2.8	24
22	Monaural Source Separation in Complex Domain With Long Short-Term Memory Neural Network. IEEE Journal on Selected Topics in Signal Processing, 2019, 13, 359-369.	10.8	23
23	A Novel Hybrid Approach to the Permutation Problem of Frequency Domain Blind Source Separation. Lecture Notes in Computer Science, 2004, , 532-539.	1.3	22
24	A Source Counting Method Using Acoustic Vector Sensor Based on Sparse Modeling of DOA Histogram. IEEE Signal Processing Letters, 2019, 26, 69-73.	3.6	22
25	Blind separation of convolutive mixtures of cyclostationary signals. International Journal of Adaptive Control and Signal Processing, 2004, 18, 279-298.	4.1	21
26	Integrating binaural cues and blind source separation method for separating reverberant speech mixtures. , 2011, , .		20
27	A perceptually-weighted deep neural network for monaural speech enhancement in various background noise conditions. , 2017, , .		20
28	Adaptive Retrodiction Particle PHD Filter for Multiple Human Tracking. IEEE Signal Processing Letters, 2016, 23, 1592-1596.	3.6	19
29	Source Separation of Convolutive and Noisy Mixtures Using Audio-Visual Dictionary Learning and Probabilistic Time-Frequency Masking. IEEE Transactions on Signal Processing, 2013, 61, 5520-5535.	5.3	18
30	Sparse Recovery and Dictionary Learning From Nonlinear Compressive Measurements. IEEE Transactions on Signal Processing, 2019, 67, 5659-5670.	5.3	18
31	Anomalous Sound Detection Using Spectral-Temporal Information Fusion. , 2022, , .		18
32	Analysis SimCO: A new algorithm for analysis dictionary learning. , 2014, , .		17
33	A Skip Attention Mechanism for Monaural Singing Voice Separation. IEEE Signal Processing Letters, 2019, 26, 1481-1485.	3.6	16
34	Squared Euclidean Distance Based Convolutive Non-Negative Matrix Factorization with Multiplicative Learning Rules For Audio Pattern Separation. , 2007, , .		15
35	Spatial and coherence cues based time-frequency masking for binaural reverberant speech separation. , 2013, , .		14
36	Low rank matrix completion using truncated nuclear norm and sparse regularizer. Signal Processing: Image Communication, 2018, 68, 76-87.	3.2	14

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37	Convolutional fusion network for monaural speech enhancement. Neural Networks, 2021, 143, 97-107.	5.9	14
38	Use of bimodal coherence to resolve the permutation problem in convolutive BSS. Signal Processing, 2012, 92, 1916-1927.	3.7	12
39	Multiple Speaker Tracking in Spatial Audio via PHD Filtering and Depth-Audio Fusion. IEEE Transactions on Multimedia, 2018, 20, 1767-1780.	7.2	12
40	A multistage approach for blind separation of convolutive speech mixtures. , 2009, , .		11
41	Dictionary learning and update based on simultaneous codeword optimization (SimCO). , 2012, , .		11
42	Audio constrained particle filter based visual tracking. , 2013, , .		11
43	Particle Flow SMC-PHD Filter for Audio-Visual Multi-speaker Tracking. Lecture Notes in Computer Science, 2017, , 344-353.	1.3	11
44	Multi-source phase retrieval from multi-channel phaseless STFT measurements. Signal Processing, 2018, 144, 36-40.	3.7	10
45	Iterative Deep Neural Networks for Speaker-Independent Binaural Blind Speech Separation. , 2018, , .		10
46	Evolving Multi-Resolution Pooling CNN for Monaural Singing Voice Separation. IEEE/ACM Transactions on Audio Speech and Language Processing, 2021, 29, 807-822.	5.8	10
47	Methods for learning adaptive dictionary in underdetermined speech separation. , 2011, , .		9
48	Multi-Scale Residual Convolutional Encoder Decoder with Bidirectional Long Short-Term Memory for Single Channel Speech Enhancement. , 2021, , .		9
49	Note Onset Detection via Nonnegative Factorization of Magnitude Spectrum. Eurasip Journal on Advances in Signal Processing, 2008, 2008, .	1.7	8
50	A block-based compressed sensing method for underdetermined blind speech separation incorporating binary mask. , 2010, , .		8
51	An Expectation-Maximization Algorithm for Blind Separation of Noisy Mixtures Using Gaussian Mixture Model. Circuits, Systems, and Signal Processing, 2017, 36, 2697-2726.	2.0	7
52	Sparse Analysis Model Based Dictionary Learning for Signal Declipping. IEEE Journal on Selected Topics in Signal Processing, 2021, 15, 25-36.	10.8	7
53	Diverse Audio Captioning Via Adversarial Training. , 2022, , .		7
54	PARAFAC-Based Blind Identification of Underdetermined Mixtures Using Gaussian Mixture Model. Circuits, Systems, and Signal Processing, 2014, 33, 1841-1857.	2.0	6

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55	An RIP-Based Performance Guarantee of Covariance-Assisted Matching Pursuit. IEEE Signal Processing Letters, 2018, 25, 828-832.	3.6	6
56	A non-intrusive method for estimating binaural speech intelligibility from noise-corrupted signals captured by a pair of microphones. Speech Communication, 2018, 96, 116-128.	2.8	6
57	Sparse Blind Speech Deconvolution with Dynamic Range Regularization and Indicator Function. Circuits, Systems, and Signal Processing, 2017, 36, 4145-4160.	2.0	5
58	Intelligent Signal Processing Mechanisms for Nuanced Anomaly Detection in Action Audio-Visual Data Streams. , 2018, , .		5
59	Consistent Dictionary Learning for Signal Declipping. Lecture Notes in Computer Science, 2018, , 446-455.	1.3	5
60	A Speech Synthesis Approach for High Quality Speech Separation and Generation. IEEE Signal Processing Letters, 2019, 26, 1872-1876.	3.6	5
61	Blind Multiple-Input Multiple-Output Image Phase Retrieval. IEEE Transactions on Industrial Electronics, 2020, 67, 2220-2230.	7.9	5
62	A Global-Local Attention Framework for Weakly Labelled Audio Tagging. , 2021, , .		5
63	Audio-Visual Tracking of Multiple Speakers Via a PMBM Filter. , 2022, , .		5
64	Generalized generating function with tucker decomposition and alternating least squares for underdetermined blind identification. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.7	4
65	Social force model aided robust particle PHD filter for multiple human tracking. , 2016, , .		4
66	Labelled Non-zero Particle Flow for SMC-PHD Filtering. , 2019, , .		4
67	Cocktail Party Problem. , 0, , 61-79.		4
68	A Mutual Learning Framework for Few-Shot Sound Event Detection. , 2022, , .		4
69	Reverberant speech separation based on audio-visual dictionary learning and binaural cues. , 2012, , .		3
70	Acoustic vector sensor based speech source separation with mixed Gaussian-Laplacian distributions. , 2013, , .		3
71	Blind Source Separation Based on Dictionary Learning: A Singularity-Aware Approach. Signals and Communication Technology, 2014, , 39-59.	0.5	3
72	A Robust student's-t distribution PHD filter with OCSVM updating for multiple human tracking. , 2015, , .		3

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73	Audio informed visual speaker tracking with SMC-PHD filter. , 2015, , .		3
74	Audio head pose estimation using the direct to reverberant speech ratio. Speech Communication, 2016, 85, 98-108.	2.8	3
75	Audio–Visual Speaker Tracking. , 2017, , .		3
76	Error sensitivity analysis of Delta divergence - a novel measure for classifier incongruence detection. Pattern Recognition, 2018, 77, 30-44.	8.1	3
77	Person Tracking Using Audio and Depth Cues. , 2015, , .		2
78	A greedy algorithm with learned statistics for sparse signal reconstruction. , 2017, , .		2
79	Particle flow for sequential Monte Carlo implementation of probability hypothesis density. , 2017, , .		2
80	Multiple Input Single Output Phase Retrieval. Circuits, Systems, and Signal Processing, 2019, 38, 3818-3840.	2.0	2
81	Robust PCA Using Nonconvex Rank Approximation and Sparse Regularizer. Circuits, Systems, and Signal Processing, 2020, 39, 3086-3104.	2.0	2
82	Enhancing Audio Augmentation Methods with Consistency Learning. , 2021, , .		2
83	Predicting Binaural Speech Intelligibility from Signals Estimated by a Blind Source Separation Algorithm. , 0, , .		1
84	Polynomial dictionary learning algorithms in sparse representations. Signal Processing, 2018, 142, 492-503.	3.7	0
85	Single-Channel Speech Enhancement with Sequentially Trained DNN System. , 2019, , .		0
86	Monaural Speech Enhancement Based On Two Stage Long Short-Term Memory Networks. , 2019, , .		0
87	Joint $$L1-L2$$ Regularisation for Blind Speech Deconvolution. Lecture Notes in Computer Science, 2018, , 834-843.	1.3	0
88	Partial Arithmetic Consensus based Distributed Intensity Particle Flow SMC-PHD Filter for Multi-Target Tracking. , 2022, , .		0