Bin Liao

List of Publications by Year in descending order

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116	2,527	172207	214527
papers	citations	29 h-index	47 g-index

117	117	117	1501
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	DOA Estimation and Tracking of ULAs with Mutual Coupling. IEEE Transactions on Aerospace and Electronic Systems, 2012, 48, 891-905.	2.6	160
2	Iterative Methods for Subspace and DOA Estimation in Nonuniform Noise. IEEE Transactions on Signal Processing, 2016, 64, 3008-3020.	3.2	143
3	MIMO Radar Waveform Design With PAPR and Similarity Constraints. IEEE Transactions on Signal Processing, 2018, 66, 968-981.	3.2	119
4	Transceive Beamforming With Accurate Nulling in FDA-MIMO Radar for Imaging. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 4145-4159.	2.7	98
5	Direction Finding With Partly Calibrated Uniform Linear Arrays. IEEE Transactions on Antennas and Propagation, 2012, 60, 922-929.	3.1	97
6	Communication-Aware Waveform Design for MIMO Radar With Good Transmit Beampattern. IEEE Transactions on Signal Processing, 2018, 66, 5549-5562.	3.2	92
7	Accurate WiFi Localization by Fusing a Group of Fingerprints via a Global Fusion Profile. IEEE Transactions on Vehicular Technology, 2018, 67, 7314-7325.	3.9	69
8	One-Bit MUSIC. IEEE Signal Processing Letters, 2019, 26, 961-965.	2.1	69
9	Spectrally Compatible Waveform Design for MIMO Radar in the Presence of Multiple Targets. IEEE Transactions on Signal Processing, 2018, 66, 3543-3555.	3.2	66
10	$ext {A}^ext {2}ext {RC}$: An Accurate Array Response Control Algorithm for Pattern Synthesis. IEEE Transactions on Signal Processing, 2017, 65, 1810-1824.	3.2	61
11	Fast Angle Estimation for MIMO Radar With Nonorthogonal Waveforms. IEEE Transactions on Aerospace and Electronic Systems, 2018, 54, 2091-2096.	2.6	61
12	Adaptive Beamforming for Uniform Linear Arrays With Unknown Mutual Coupling. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 464-467.	2.4	58
13	Robust Adaptive Beamforming With Precise Main Beam Control. IEEE Transactions on Aerospace and Electronic Systems, 2017, 53, 345-356.	2.6	55
14	Convexity of Fairness-Aware Resource Allocation in Wireless Powered Communication Networks. IEEE Communications Letters, 2016, 20, 474-477.	2.5	54
15	Joint Design of the Transmit and Receive Beamforming in MIMO Radar Systems. IEEE Transactions on Vehicular Technology, 2019, 68, 7919-7930.	3.9	51
16	Co-Design for Overlaid MIMO Radar and Downlink MISO Communication Systems via CramÃ©râ€“Rao Bound Minimization. IEEE Transactions on Signal Processing, 2019, 67, 6227-6240.	3.2	49
17	A New Nested Array Configuration With Increased Degrees of Freedom. IEEE Access, 2018, 6, 1490-1497.	2.6	46
18	Pattern Synthesis for Arbitrary Arrays via Weight Vector Orthogonal Decomposition. IEEE Transactions on Signal Processing, 2018, 66, 1286-1299.	3.2	42

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19	New Approaches to Direction-of-Arrival Estimation With Sensor Arrays in Unknown Nonuniform Noise. IEEE Sensors Journal, 2016, 16, 8982-8989.	2.4	41
20	Transmit Signal Design for Large-Scale MIMO System With 1-bit DACs. IEEE Transactions on Wireless Communications, 2019, 18, 4466-4478.	6.1	40
21	Transmit Sequence Design for Dual-Function Radar-Communication System With One-Bit DACs. IEEE Transactions on Wireless Communications, 2021, 20, 5846-5860.	6.1	40
22	Direction Finding in MIMO Radar With Unknown Mutual Coupling. IEEE Access, 2017, 5, 4439-4447.	2.6	37
23	A Cumulant-Based Method for Direction Finding in Uniform Linear Arrays With Mutual Coupling. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 1717-1720.	2.4	36
24	Direction finding in partly calibrated uniform linear arrays with unknown gains and phases. IEEE Transactions on Aerospace and Electronic Systems, 2015, 51, 217-227.	2.6	36
25	Pattern Synthesis With Multipoint Accurate Array Response Control. IEEE Transactions on Antennas and Propagation, 2017, 65, 4075-4088.	3.1	35
26	Hybrid Beamforming Design for OFDM Dual-Function Radar-Communication System. IEEE Journal on Selected Topics in Signal Processing, 2021, 15, 1455-1467.	7.3	35
27	Direction Finding With Partly Calibrated Uniform Linear Arrays in Nonuniform Noise. IEEE Sensors Journal, 2016, 16, 4882-4890.	2.4	33
28	Hybrid Beamforming for Multi-Carrier Dual-Function Radar-Communication System. IEEE Transactions on Cognitive Communications and Networking, 2021, 7, 1002-1015.	4.9	33
29	Capacitive Proximity Sensor Array With a Simple High Sensitivity Capacitance Measuring Circuit for Humanâ€“Computer Interaction. IEEE Sensors Journal, 2018, 18, 5906-5914.	2.4	31
30	Direction-of-Arrival Estimation in Subarrays-Based Linear Sparse Arrays with Gain/Phase Uncertainties. IEEE Transactions on Aerospace and Electronic Systems, 2013, 49, 2268-2280.	2.6	28
31	Knowledge Aided Adaptive Localization via Global Fusion Profile. IEEE Internet of Things Journal, 2018, 5, 1081-1089.	5.5	28
32	A Generalized Algorithm for Fast Two-Dimensional Angle Estimation of a Single Source With Uniform Circular Arrays. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 984-986.	2.4	27
33	Flexible Array Response Control via Oblique Projection. IEEE Transactions on Signal Processing, 2019, 67, 3126-3139.	3.2	26
34	OPARC: Optimal and Precise Array Response Control Algorithmâ€”Part I: Fundamentals. IEEE Transactions on Signal Processing, 2019, 67, 652-667.	3.2	26
35	A cumulant-based approach for direction finding in the presence of mutual coupling. Signal Processing, 2014, 104, 197-202.	2.1	25
36	Target Detection Performance of Collocated MIMO Radar With One-Bit ADCs. IEEE Signal Processing Letters, 2019, 26, 1832-1836.	2.1	25

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37	A nonlinear-ADMM method for designing MIMO radar constant modulus waveform with low correlation sidelobes. Signal Processing, 2019, 159, 93-103.	2.1	25
38	Robust adaptive beamforming with random steering vector mismatch. Signal Processing, 2016, 129, 190-194.	2.1	23
39	On Convexity of Fairness-Aware Energy-Efficient Power Allocation in Spectrum-Sharing Networks. IEEE Communications Letters, 2016, 20, 534-537.	2.5	23
40	One-Bit Compressive Sensing via Schur-Concave Function Minimization. IEEE Transactions on Signal Processing, 2019, 67, 4139-4151.	3.2	23
41	DeepFPC: A deep unfolded network for sparse signal recovery from 1-Bit measurements with application to DOA estimation. Signal Processing, 2020, 176, 107699.	2.1	22
42	OPARC: Optimal and Precise Array Response Control Algorithmâ€”Part II: Multi-Points and Applications. IEEE Transactions on Signal Processing, 2019, 67, 668-683.	3.2	21
43	Matrix completion based direction-of-arrival estimation in nonuniform noise. , 2016, , .		20
44	Spatial smoothing based methods for direction-of-arrival estimation of coherent signals in nonuniform noise. , 2017, 67, 116-122.		18
45	Robust Quasi-Adaptive Beamforming Against Direction-of-Arrival Mismatch. IEEE Transactions on Aerospace and Electronic Systems, 2018, 54, 1197-1207.	2.6	18
46	1-bit compressive sensing with an improved algorithm based on fixed-point continuation. Signal Processing, 2019, 154, 168-173.	2.1	18
47	Array signal processing and systems. Multidimensional Systems and Signal Processing, 2018, 29, 467-473.	1.7	17
48	QoS-Aware Hybrid Beamforming and DOA Estimation in Multi-Carrier Dual-Function Radar-Communication Systems. IEEE Journal on Selected Areas in Communications, 2022, 40, 1890-1905.	9.7	17
49	Pattern Synthesis via Oblique Projection-Based Multipoint Array Response Control. IEEE Transactions on Antennas and Propagation, 2019, 67, 4602-4616.	3.1	15
50	A simple method for DOA estimation in the presence of unknown nonuniform noise. , 2015, , .		13
51	Direction finding in MIMO radar with unknown transmitter and/or receiver gains and phases. Multidimensional Systems and Signal Processing, 2017, 28, 691-707.	1.7	13
52	A New Local Polynomial Modeling Based Variable Forgetting Factor and Variable Regularized PAST Algorithm for Subspace Tracking. IEEE Transactions on Aerospace and Electronic Systems, 2018, 54, 1530-1544.	2.6	13
53	Robust one-bit compressive sensing with weighted â„“1-norm minimization. Signal Processing, 2019, 164, 380-385.	2.1	13
54	An Eigendecomposition-Based Approach to Blind Beamforming in a Multipath Environment. IEEE Communications Letters, 2017, 21, 322-325.	2.5	12

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55	Direction-of-arrival estimation in nonuniform noise via low-rank matrix decomposition. , 2017, , .		12
56	Adaptive Beamforming in an Impulsive Noise Environment Using Matrix Completion. IEEE Communications Letters, 2018, 22, 768-771.	2.5	12
57	Time Allocation and Load Balancing in Multi-Cell Wireless Powered Communication Networks. IEEE Access, 2016, 4, 7795-7805.	2.6	11
58	Fast Determination of Single-Cut Far-Field Pattern of Base Station Antenna at a Quasi-Far-Field Distance. IEEE Transactions on Antennas and Propagation, 2020, 68, 3989-3996.	3.1	11
59	Minimum Secrecy Throughput Maximization in Wireless Powered Secure Communications. IEEE Transactions on Vehicular Technology, 2018, 67, 2571-2581.	3.9	10
60	DOA estimation of rectilinear signals with a partly calibrated uniform linear array. Signal Processing, 2018, 147, 203-207.	2.1	9
61	One-Bit Direction of Arrival Estimation With an Improved Fixed-Point Continuation Algorithm. , 2018, , .		9
62	DOA estimation under the coexistence of nonuniform noise and mutual coupling. , 2015, , .		8
63	Fast Array Response Adjustment With Phase-Only Constraint: A Geometric Approach. IEEE Transactions on Antennas and Propagation, 2019, 67, 6439-6451.	3.1	8
64	DOD/DOA and Polarization Estimation in MIMO Systems With Spatially Spread Dipole Quints. IEEE Communications Letters, 2020, 24, 99-102.	2.5	8
65	Direction-of-Arrival Estimation Based on Quantized Matrix Recovery. IEEE Communications Letters, 2020, 24, 349-353.	2.5	8
66	DOA and phase error estimation using one calibrated sensor in ULA. Multidimensional Systems and Signal Processing, 2018, 29, 523-535.	1.7	7
67	Toeplitz Matrix Completion for Direction Finding Using a Modified Nested Linear Array. , 2019, , .		7
68	Hybrid Beamforming for Wideband OFDM Dual Function Radar Communications. , 2021, , .		7
69	Transmit beampattern synthesis for MIMO radar with one-bit digital-to-analog converters. Signal Processing, 2021, 188, 108228.	2.1	7
70	A new visual object tracking algorithm using Bayesian Kalman filter. , 2014, , .		6
71	Robust beamforming against direction-of-arrival mismatch via signal-to-interference-plus-noise ratio maximization. , 2017, , .		6
72	Transmit Beampattern Design for MIMO Radar with One-bit DACs. , 2019, , .		6

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73	A robust beamformer with main beam control. , 2016, , .		5
74	Waveform Design for Collocated MIMO Radar With High-Mix-Low-Resolution ADCs. IEEE Transactions on Signal Processing, 2021, 69, 28-41.	3.2	5
75	Robust adaptive beamforming against significant angle mismatch. , 2017, , .		4
76	Fourth-order direction finding in antenna arrays with partial channel gain/phase calibration. Signal Processing, 2020, 169, 107380.	2.1	4
77	Transmit Beampattern Design for MIMO Radar with One-bit DACs via Block-Sparse SDR. , 2020, , .		4
78	Transmit Beampattern Synthesis for MIMO Radar with One-Bit DACs. , 2021, , .		4
79	ADMMâ€based approach for compressive sensing with negative weights. IET Signal Processing, 2020, 14, 854-860.	0.9	4
80	An Improved Eigendecomposition-Based Algorithm for Frequencies Estimation of Two Sinusoids. IEEE Communications Letters, 2013, 17, 557-560.	2.5	3
81	On Proportional Fairness in Power Allocation for Two-Tone Spectrum-Sharing Networks. IEEE Transactions on Vehicular Technology, 2016, 65, 10090-10096.	3.9	3
82	MIMO Radar Transmit Beampattern Synthesis via Waveform Design for Target Localization. , 2019, , .		3
83	Joint Design for MIMO Radar and Downlink Communication Systems Coexistence. , 2019, , .		3
84	A Robust Deep Unfolded Network for Sparse Signal Recovery from Noisy Binary Measurements. , 2021, , .		3
85	Hybrid Beamforming for Multi-User Dual-Function MIMO Radar-Communication System. , 2020, , .		3
86	Array calibration with sensor position errors using particle swarm optimization algorithm. , 2009, , .		2
87	A review on direction finding in partly calibrated arrays. , 2014, , .		2
88	An improved approach to robust capon beamforming with enhanced performance. , 2016, , .		2
89	Estimation of DOA and phase error using a partly calibrated sensor array with arbitrary geometry. , 2016, , .		2
90	DOA Estimation of Quasi-Stationary Signals with a Nested Array in Unknown Noise Field. , 2018, , .		2

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91	Sparse representation based DOA estimation using a modified nested linear array. , 2018, , .		2
92	A New Capacitance Measuring System for Capacitive Sensor for Moving Target Detection. IEEE Transactions on Circuits and Systems II: Express Briefs, 2019, 66, 1099-1103.	2.2	2
93	A new nested array for direction-of-arrival estimation. Multidimensional Systems and Signal Processing, 2020, 31, 663-672.	1.7	2
94	DOA Estimation of Quasi-Stationary Signals in Uniform Linear Arrays With Mutual Coupling. , 2020, , .		2
95	An improved pre-processing approach for convex-geometry based blind source separation. , 2021, 114, 103048.		2
96	Improved cumulant-based methods for direction finding with mutual coupling effect. , 2015, , .		1
97	Spectrally Compatible Waveform Design for MIMO Radar With Transmit Beampattern Formation. , 2018, , .		1
98	A Sparse Representation Based Method for DOA Estimation Based in Nonuniform Noise. , 2018, , .		1
99	Online Mutual Coupling Calibration Using a Signal Source at Unknown Location. , 2018, , .		1
100	A Fast Method for Array Response Adjustment with Phase-Only Constraint. , 2019, , .		1
101	New Approach to Designing Constant Modulus Waveforms with Low Correlation Sidelobes for MIMO Radar. , 2019, , .		1
102	Waveform Design for MIMO Radar With Partial Low-Resolution ADCs. , 2020, , .		1
103	Generalized Fixed-Point Continuation Method: Convergence and Application. IEEE Transactions on Signal Processing, 2020, 68, 5746-5758.	3.2	1
104	An MAP Method for Closed-Loop Channel Training in Massive MIMO Systems. IEEE Transactions on Vehicular Technology, 2022, 71, 5534-5539.	3.9	1
105	Blind Regularized Constant Modulus Multiuser Detection via a Newton Algorithm. , 2021, , .		1
106	Hybrid beamforming design for orthogonal frequency division multiplexing dualâ€function radarâ€communication system with optimised transmit beampattern. IET Signal Processing, 2022, 16, 864-872.	0.9	1
107	Direction-of-Arrival Estimation Based on Enhanced Sparse Representation. , 2018, , .		0
108	Direction Finding With Partially Corrupted Data Based on OptSpace Algorithm. , 2019, , .		0

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109	Transmit Signal Design for One-Bit Dual-Function Radar-Communication System. , 2020, , .		0
110	Deep Learning Based Broadband DOA Estimation. , 2021, , .		0
111	A Local Dominance Based Single Source Points Detector for Mixing Matrix Estimation. , 2021, , .		0
112	Blind Separation of Convolutive Speech Mixtures Based on Local Sparsity and K-means. , 2021, , .		0
113	Subspace tracking for time-varying direction-of-arrival estimation with sensor arrays. , 2022, , 129-155.		0
114	Blind Constant Modulus Multiuser Detection With Regularization. IEEE Wireless Communications Letters, 2022, 11, 1649-1653.	3.2	0
115	Transmit waveform and receive filter design for multipleâ€input multipleâ€output radar with oneâ€bit digitalâ€toâ€analogue converters. IET Signal Processing, 0, , .	0.9	0
116	Guest editorial: Advanced signal processing for integration ofÂradar and communication (IRC). IET Signal Processing, 0, , .	0.9	0