Chengwen Xing

List of Publications by Year
in descending order

136 papers	2,913 citations	201674 27 h-index	189892 50 g-index
136 all docs	136 docs citations	136 times ranked	2528 citing authors

#	Article	IF	Citations
1	Training Optimization for Subarray-Based IRS-Assisted MIMO Communications. IEEE Internet of Things Journal, 2022, 9, 2890-2905.	8.7	8
2	Throughput Maximization for Asynchronous RIS-Aided Hybrid Powered Communication Networks. IEEE Transactions on Wireless Communications, 2022, 21, 4114-4132.	9.2	5
3	Joint Device Detection, Channel Estimation, and Data Decoding With Collision Resolution for MIMO Massive Unsourced Random Access. IEEE Journal on Selected Areas in Communications, 2022, 40, 1535-1555.	14.0	16
4	Joint Transceiver Optimization for IRS-Aided MIMO Communications. IEEE Transactions on Communications, 2022, 70, 3467-3482.	7.8	12
5	Training Beam Design for Channel Estimation in Hybrid mmWave MIMO Systems. IEEE Transactions on Wireless Communications, 2022, 21, 7121-7134.	9.2	5
6	Joint Bayesian Channel Estimation and Data Detection for OTFS Systems in LEO Satellite Communications. IEEE Transactions on Communications, 2022, 70, 4386-4399.	7.8	4
7	Deep Multimodal Learning: Merging Sensory Data for Massive MIMO Channel Prediction. IEEE Journal on Selected Areas in Communications, 2021, 39, 1885-1898.	14.0	22
8	Matrix-Monotonic Optimization $-$ Part II: Multi-Variable Optimization. IEEE Transactions on Signal Processing, 2021, 69, 179-194.	5.3	14
9	A Unified MIMO Optimization Framework Relying on the KKT Conditions. IEEE Transactions on Communications, 2021, 69, 7251-7268.	7.8	7
10	Throughput Maximization for Intelligent Reflecting Surface Aided MIMO WPCNs With Different DL/UL Reflection Patterns. IEEE Transactions on Signal Processing, 2021, 69, 2706-2724.	5.3	23
11	Beamforming Optimization for Intelligent Reflecting Surface-Aided SWIPT IoT Networks Relying on Discrete Phase Shifts. IEEE Internet of Things Journal, 2021, 8, 8585-8602.	8.7	46
12	Wideband Beamforming for Hybrid Massive MIMO Terahertz Communications. IEEE Journal on Selected Areas in Communications, 2021, 39, 1725-1740.	14.0	60
13	Wireless Caching: Cell-Free versus Small Cells. , 2021, , .		7
14	Sensory Data Assisted Downlink Channel Prediction for Massive MIMO. , 2021, , .		0
15	Wideband Beamforming for Hybrid Phased Array Terahertz Systems. , 2021, , .		5
16	Multi-Antenna Covert Communication via Full-Duplex Jamming Against a Warden With Uncertain Locations. IEEE Transactions on Wireless Communications, 2021, 20, 5467-5480.	9.2	26
17	Unified IRS-Aided MIMO Transceiver Designs via Majorization Theory. IEEE Transactions on Signal Processing, 2021, 69, 3016-3032.	5.3	32
18	Robust Superimposed Training Optimization for UAV Assisted Communication Systems. IEEE Transactions on Wireless Communications, 2020, 19, 1704-1721.	9.2	23

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19	Multi-Antenna Aided Secrecy Beamforming Optimization for Wirelessly Powered HetNets. IEEE Transactions on Wireless Communications, 2020, 19, 5261-5277.	9.2	9
20	Majorization-Minimization Aided Hybrid Transceivers for MIMO Interference Channels. IEEE Transactions on Signal Processing, 2020, 68, 4903-4918.	5.3	20
21	Power Optimization for Enhancing Secrecy of Cooperative User Relaying NOMA Networks. IEEE Transactions on Vehicular Technology, 2020, 69, 8008-8012.	6.3	13
22	Hybrid Transceiver Optimization for Multi-Hop Communications. IEEE Journal on Selected Areas in Communications, 2020, 38, 1880-1895.	14.0	13
23	New Viewpoint and Algorithms for Water-Filling Solutions in Wireless Communications. IEEE Transactions on Signal Processing, 2020, 68, 1618-1634.	5.3	53
24	Training Optimization for Hybrid MIMO Communication Systems. IEEE Transactions on Wireless Communications, 2020, 19, 5473-5487.	9.2	7
25	Irregular Array Manifold Aided Channel Estimation in Massive MIMO Communications. IEEE Journal on Selected Topics in Signal Processing, 2019, 13, 974-988.	10.8	19
26	Robust Energy Efficiency Optimization for Amplify-and-Forward MIMO Relaying Systems. IEEE Transactions on Wireless Communications, 2019, 18, 4326-4343.	9.2	11
27	Optimal Beamforming and Time Allocation for Partially Wireless Powered Sensor Networks With Downlink SWIPT. IEEE Transactions on Signal Processing, 2019, 67, 3197-3212.	5.3	32
28	Beamspace Precoding and Beam Selection for Wideband Millimeter-Wave MIMO Relying on Lens Antenna Arrays. IEEE Transactions on Signal Processing, 2019, 67, 6301-6313.	5.3	39
29	Secure Wideband Beamforming Design for Two-Way MIMO Relaying Systems. IEEE Transactions on Vehicular Technology, 2019, 68, 3472-3486.	6.3	16
30	Uplink Resource Allocation for Relay-Aided Device-to-Device Communication. IEEE Transactions on Intelligent Transportation Systems, 2018, 19, 3883-3892.	8.0	31
31	Dynamic Spectrum Leasing With Two Sellers. IEEE Transactions on Vehicular Technology, 2018, 67, 4852-4866.	6.3	6
32	Iterative Receivers for Downlink MIMO-SCMA: Message Passing and Distributed Cooperative Detection. IEEE Transactions on Wireless Communications, 2018, 17, 3444-3458.	9.2	64
33	Polarization Sensitive Array Based Physical-Layer Security. IEEE Transactions on Vehicular Technology, 2018, 67, 3964-3981.	6.3	13
34	NOMA-Based Calibration for Large-Scale Spaceborne Antenna Arrays. IEEE Transactions on Vehicular Technology, 2018, 67, 2231-2242.	6.3	9
35	Time-Invariant Joint Transmit and Receive Beampattern Optimization for Polarization-Subarray Based Frequency Diverse Array Radar. IEEE Transactions on Signal Processing, 2018, 66, 5364-5379.	5.3	19
36	Transmit-Receive Beampattern Optimization for Polarization-Subarray-Based Frequency Diverse Array Radar. , 2018, , .		0

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37	Decoupled Heterogeneous Networks With Millimeter Wave Small Cells. IEEE Transactions on Wireless Communications, 2018, 17, 5871-5884.	9.2	39
38	Uplink Interference Coordination Management With Power Control for D2D Underlaying Cellular Networks: Modeling, Algorithms, and Analysis. IEEE Transactions on Vehicular Technology, 2018, 67, 8582-8594.	6.3	31
39	Millimeter-Wave Secrecy Beamforming Designs for Two-Way Amplify-and-Forward MIMO Relaying Networks. IEEE Transactions on Vehicular Technology, 2017, 66, 2059-2071.	6.3	67
40	On Weighted MSE Model for MIMO Transceiver Optimization. IEEE Transactions on Vehicular Technology, 2017, 66, 7072-7085.	6.3	13
41	Secure Communications for Dual-Polarized MIMO Systems. IEEE Transactions on Signal Processing, 2017, 65, 4177-4192.	5.3	27
42	Energy Efficient Transmission in Multi-User MIMO Relay Channels With Perfect and Imperfect Channel State Information. IEEE Transactions on Wireless Communications, 2017, 16, 3885-3898.	9.2	15
43	Guard Zone Based Interference Management for D2D-Aided Underlaying Cellular Networks. IEEE Transactions on Vehicular Technology, 2017, 66, 5466-5471.	6.3	26
44	A Survey of Multi-Objective Optimization in Wireless Sensor Networks: Metrics, Algorithms, and Open Problems. IEEE Communications Surveys and Tutorials, 2017, 19, 550-586.	39.4	317
45	Robust energy-efficient precoding optimization for dual-polarized multiuser MIMO downlink. , 2017, , .		3
46	5G entering into a new era [Guest Editorial]. China Communications, 2017, 14, iv-vi.	3.2	1
47	Some facts you may want to know about water-filling solutions. , 2017, , .		0
48	Energy States Aided Relay Selection for Cognitive Relaying Transmission. , 2016, , .		0
49	Optimal Mode Selection With Uplink Data Rate Maximization for D2D-Aided Underlaying Cellular Networks. IEEE Access, 2016, 4, 8844-8856.	4.2	14
50	On the Performance of HARQ-IR over Nakagami-m Fading Channels in Mobile Ad Hoc Networks. IEEE Transactions on Vehicular Technology, 2016, , 1-1.	6.3	6
51	Secrecy beamforming design for large millimeter-wave two-way relaying networks. , 2016, , .		4
52	Decomposition Optimization Algorithms for Distributed Radar Systems. IEEE Transactions on Signal Processing, 2016, 64, 6443-6458.	5.3	19
53	Throughput Improvement in Cellular Networks via Full-Duplex Based Device-to-Device Communications. IEEE Access, 2016, 4, 7645-7657.	4.2	41
54	Transceiver designs with matrix-version water-filling architecture under mixed power constraints. Science China Information Sciences, 2016, 59, 1.	4.3	5

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55	Robust capacity maximization transceiver design for MIMO OFDM systems. Science China Information Sciences, 2016, 59, 1.	4.3	4
56	Transceiver Optimization for Multi-Hop Communications With Per-Antenna Power Constraints. IEEE Transactions on Signal Processing, 2016, 64, 1519-1534.	5.3	145
57	Transmission Capacity of Clustered Ad Hoc Networks With Virtual Antenna Array. IEEE Transactions on Vehicular Technology, 2016, 65, 6926-6939.	6.3	4
58	Performance analysis for uplink massive MIMO systems with a large and random number of UEs. Science China Information Sciences, 2016, 59, 1-9.	4.3	18
59	Cooperative beamforming design for physical-layer security of multi-hop MIMO communications. Science China Information Sciences, 2016, 59, 1.	4.3	7
60	The Role of Large-Scale Fading in Uplink Massive MIMO Systems. IEEE Transactions on Vehicular Technology, 2016, 65, 477-483.	6.3	40
61	Matrix-field water-filling architecture for MIMO transceiver designs with mixed power constraints. , 2015, , .		8
62	A novel transceiver architecture in the two-way relay channel with analog and digital beamforming. , 2015, , .		1
63	System-level performance evaluation of ultra-dense networks for 5G. , 2015, , .		7
64	Performance Analysis and Location Optimization for Massive MIMO Systems With Circularly Distributed Antennas. IEEE Transactions on Wireless Communications, 2015, 14, 5659-5671.	9.2	67
65	Distributed cooperative localization based on Gaussian message passing on factor graph in wireless networks. Science China Information Sciences, 2015, 58, 1-15.	4.3	9
66	Distributed optimization for downlink broadband small cell networks. , 2015, , .		2
67	Matrix-Monotonic Optimization for MIMO Systems. IEEE Transactions on Signal Processing, 2015, 63, 334-348.	5.3	158
68	A new ultra-wideband high-frequency channel model. , 2015, , .		0
69	Analysis of device-to-device communications with exclusion regions underlaying 5G networks. Transactions on Emerging Telecommunications Technologies, 2015, 26, 93-101.	3.9	18
70	Feasible D2D communication distance in D2D-enabled cellular networks. , 2014, , .		18
71	Performance analysis for distributed antenna systems based on random matrix theory. , 2014, , .		0
72	A Dynamic Clustering Algorithm Design for C-RAN Based on Multi-Objective Optimization Theory. , 2014, , .		7

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73	An Efficient Synchronization Signal Design for Neighboring Cell Search. , 2014, , .		1
74	A robust and distributed design for coordinated downlink beamforming for secure MISO interference channels. Transactions on Emerging Telecommunications Technologies, 2014, 25, 1020-1027.	3.9	5
75	A tractable model for Device-to-Device communication underlaying multi-cell cellular networks. , 2014, , .		7
76	Gaussian message-based cooperative localization on factor graph in wireless sensor networks. , 2014, , .		3
77	Matrix optimization problems for MIMO systems with matrix monotone objective functions. , 2014, , .		0
78	Secrecy-Rate Balancing for Two-User MISO Interference Channels. IEEE Wireless Communications Letters, 2014, 3, 6-9.	5.0	18
79	Robust Low-Complexity MMSE Precoding Algorithm for Cloud Radio Access Networks. IEEE Communications Letters, 2014, 18, 773-776.	4.1	14
80	Relay Antenna Selection in MIMO Two-Way Relay Networks Over Nakagami- <inline-formula> <tex-math notation="TeX">m</tex-math></inline-formula> Fading Channels. IEEE Transactions on Vehicular Technology, 2014, 63, 2349-2362.	6.3	49
81	Leakageâ€based distributed minimumâ€meanâ€square error beamforming for relayâ€assisted cloud radio access networks. IET Communications, 2014, 8, 1883-1891.	2.2	10
82	Ergodic secrecy rate of two-user MISO interference channels with statistical CSI. Science China Information Sciences, 2014, 57, 1-14.	4.3	4
83	Tensor-based blind signal recovery for multi-carrier amplify-and-forward relay networks. Science China Information Sciences, 2014, 57, 1-11.	4.3	5
84	Performance analysis for range expansion in heterogeneous networks. Science China Information Sciences, 2014, 57, 1-10.	4.3	3
85	A real-time QoE methodology for AMR codec voice in mobile network. Science China Information Sciences, 2014, 57, 1-13.	4.3	0
86	Adaptive multiobjective optimisation for energy efficient interference coordination in multicell networks. IET Communications, 2014, 8, 1374-1383.	2.2	62
87	Low complexity LMMSE beamforming design for uplink virtual MIMO systems. , 2014, , .		0
88	Robust Filter-and-forward Beamforming Design for Two-way Multi-antenna Relaying Networks. Mobile Networks and Applications, 2013, 18, 467-476.	3.3	1
89	Symbol Error Rate of Spaceâ€"Time Network Coding in Nakagami- m Fading. IEEE Transactions on Vehicular Technology, 2013, 62, 2644-2655.	6.3	7
90	Robust Coordinated Beamforming for Secure MISO Interference Channels with Bounded Ellipsoidal Uncertainties. IEEE Wireless Communications Letters, 2013, 2, 407-410.	5.0	14

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91	An extended packetization-aware mapping algorithm for scalable video coding in finite-length fountain codes. Science China Information Sciences, 2013, 56, 1-10.	4.3	6
92	Joint resource allocation for learning-based cognitive radio networks with MIMO-OFDM relay-aided transmissions. , 2013, , .		5
93	Robust Transceiver Design for MIMO-OFDM Systems Based on Cluster Water-Filling. IEEE Communications Letters, 2013, 17, 1451-1454.	4.1	8
94	A Matrix-Field Weighted Mean-Square-Error Model for MIMO Transceiver Design. IEEE Communications Letters, 2013, 17, 1652-1655.	4.1	6
95	Analysis of Hybrid ARQ in Ad Hoc Networks with Correlated Interference and Feedback Errors. IEEE Transactions on Wireless Communications, 2013, 12, 3942-3955.	9.2	11
96	Analysis of hybrid ARQ in interference dominant mobile ad hoc networks. , 2013, , .		2
97	MIMO Beamforming Designs With Partial CSI Under Energy Harvesting Constraints. IEEE Signal Processing Letters, 2013, 20, 363-366.	3.6	78
98	Robust Peer-to-Peer Relay Beamforming: A Probabilistic Approach. IEEE Communications Letters, 2013, 17, 305-308.	4.1	16
99	A General Robust Linear Transceiver Design for Multi-Hop Amplify-and-Forward MIMO Relaying Systems. IEEE Transactions on Signal Processing, 2013, 61, 1196-1209.	5.3	181
100	Design of Binary Network Codes for Multiuser Multiway Relay Networks. IEEE Transactions on Vehicular Technology, 2013, 62, 3786-3799.	6.3	9
101	Outage analysis of opportunistic amplify-and-forward cooperative cellular systems with random relays. , 2013, , .		1
102	How to understand linear minimum mean–square–error transceiver design for multiple–input–multiple–output systems from quadratic matrix programming. IET Communications, 2013, 7, 1231-1242.	2.2	88
103	Performance analysis of cooperative DF relaying over correlated Nakagami-m fading channels. , 2013, , .		4
104	Capacity for deterministic MIMO channels under rank constraint: A textbook derivation. , 2013, , .		0
105	Performance of Superposition Coding for Downlink Coordinated Two-Point System. IEEE Transactions on Vehicular Technology, 2013, 62, 4057-4064.	6.3	9
106	Performance Analysis for Heterogeneous Cellular Systems with Range Expansion. , 2013, , .		3
107	QoS-based anti-jamming algorithm design for distributed wireless networks. , 2013, , .		0
108	Secrecy Balancing over Two-User MISO Interference Channels with Rician Fading. International Journal of Antennas and Propagation, 2013, 2013, 1-7.	1.2	2

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109	Semi-dynamic switch on/off algorithm over multi-pico stations in Heterogeneous Network. , 2012, , .		1
110	Distributed Filter-And-Forward Beamforming for Two-Way Relaying Networks under Channel Uncertainties. , 2012, , .		0
111	Maximum mutual information design for amplify-and-forward multi-hop MIMO relaying systems under channel uncertainties. , 2012, , .		0
112	Robust Tomlinson-Harashima precoding for non-regenerative multi-antenna relaying systems. , 2012, , .		0
113	A QoE-based OFDM resource allocation scheme for energy efficiency and quality guarantee in multiuser-multiservice system. , 2012, , .		12
114	Robust two-way amplify-and-forward MIMO relay beamforming with non-reciprocal and reciprocal CSI. , 2012, , .		0
115	On the performance of two-way relaying with dirty paper coding. , 2012, , .		1
116	Outage analysis of opportunistic cooperative ad hoc networks with randomly located nodes. , 2012, , .		0
117	An enhanced echo MIMO channel estimation method. , 2012, , .		1
118	Robust Transceiver with Tomlinson-Harashima Precoding for Amplify-and-Forward MIMO Relaying Systems. IEEE Journal on Selected Areas in Communications, 2012, 30, 1370-1382.	14.0	45
119	A unified linear MSE minimization MIMO beamforming design based on quadratic matrix programming. , 2012, , .		1
120	Adaptive multi-objective optimization for distributed heterogeneous networks. , 2012, , .		2
121	Robust linear transceiver design for multi-hop non-regenerative MIMO relaying systems. , 2011, , .		3
122	Outage performance analysis for cooperative networks with randomly distributed nodes. , 2011, , .		1
123	Beamforming design for multi-pair two-way AF MIMO relaying networks using quadratic programming. , 2011, , .		4
124	Uplink LMMSE Beamforming Design for Cellular Networks with AF MIMO Relaying. , 2011, , .		1
125	Robust transceiver design for AF MIMO relay systems with column correlations. , 2011, , .		8
126	Joint Robust Weighted LMMSE Transceiver Design for Dual-Hop AF Multiple-Antenna Relay Systems. , 2011, , .		2

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127	Author's Reply to â€œComments on `Timing Estimation and Resynchronization for Amplify-and-Forward Communication Systems'â€ IEEE Transactions on Signal Processing, 2011, 59, 4048-4049.	5.3	2
128	Linear Transceiver Design for Amplify-And-Forward MIMO Relay Systems under Channel Uncertainties. , 2010, , .		2
129	Robust beamforming for amplify-and-forward MIMO relay systems based on quadratic matrix programming. , 2010, , .		4
130	Timing Estimation and Resynchronization for Amplify-and-Forward Communication Systems. IEEE Transactions on Signal Processing, 2010, 58, 2218-2229.	5.3	88
131	Transceiver Design for Dual-Hop Nonregenerative MIMO-OFDM Relay Systems Under Channel Uncertainties. IEEE Transactions on Signal Processing, 2010, 58, 6325-6339.	5.3	61
132	Iterative transceiver design for MIMO AF relay networks with multiple sources. , 2010, , .		18
133	Robust Joint Design of Linear Relay Precoder and Destination Equalizer for Dual-Hop Amplify-and-Forward MIMO Relay Systems. IEEE Transactions on Signal Processing, 2010, 58, 2273-2283.	5.3	165
134	Bayesian Robust Linear Transceiver Design for Dual-Hop Amplify-and-Forward MIMO Relay Systems. , 2009, , .		2
135	Iterative LMMSE transceiver design for dual-hop AF MIMO relay systems under channel uncertainties. , 2009, , .		3
136	On Low Complexity Robust Beamforming With Positive Semidefinite Constraints. IEEE Transactions on Signal Processing, 2009, 57, 4942-4945.	5.3	24