Chao Xu

List of Publications by Year
in descending order

51 papers	1,049 citations	393982 19 h-index	454577 30 g-index
51 all docs	51 docs citations	51 times ranked	654 citing authors

#	Article	IF	Citations
1	Reduced-Complexity Coherent Versus Non-Coherent QAM-Aided Space-Time Shift Keying. IEEE Transactions on Communications, 2011, 59, 3090-3101.	4.9	97
2	Transmit-Diversity-Assisted Space-Shift Keying for Colocated and Distributed/Cooperative MIMO Elements. IEEE Transactions on Vehicular Technology, 2011, 60, 2864-2869.	3.9	72
3	Spatial Modulation and Space-Time Shift Keying: Optimal Performance at a Reduced Detection Complexity. IEEE Transactions on Communications, 2013, 61, 206-216.	4.9	62
4	Low-Complexity Channel Estimation and Passive Beamforming for RIS-Assisted MIMO Systems Relying on Discrete Phase Shifts. IEEE Transactions on Communications, 2022, 70, 1245-1260.	4.9	61
5	Two Decades of MIMO Design Tradeoffs and Reduced-Complexity MIMO Detection in Near-Capacity Systems. IEEE Access, 2017, 5, 18564-18632.	2.6	60
6	Sixty Years of Coherent Versus Non-Coherent Tradeoffs and the Road From 5G to Wireless Futures. IEEE Access, 2019, 7, 178246-178299.	2.6	49
7	Reduced-Complexity Noncoherently Detected Differential Space-Time Shift Keying. IEEE Signal Processing Letters, 2011, 18, 153-156.	2.1	35
8	Compressed-Sensing Assisted Spatial Multiplexing Aided Spatial Modulation. IEEE Transactions on Wireless Communications, 2018, 17, 794-807.	6.1	34
9	Adaptive Coherent/Non-Coherent Spatial Modulation Aided Unmanned Aircraft Systems. IEEE Wireless Communications, 2019, 26, 170-177.	6.6	34
10	Reduced-Complexity Iterative-Detection-Aided Generalized Space-Time Shift Keying. IEEE Transactions on Vehicular Technology, 2012, 61, 3656-3664.	3.9	31
11	Differential-Detection Aided Large-Scale Generalized Spatial Modulation is Capable of Operating in High-Mobility Millimeter-Wave Channels. IEEE Journal on Selected Topics in Signal Processing, 2019, 13, 1360-1374.	7.3	26
12	Adaptive Coherent/Non-Coherent Single/Multiple-Antenna Aided Channel Coded Ground-to-Air Aeronautical Communication. IEEE Transactions on Communications, 2019, 67, 1099-1116.	4.9	25
13	Multiple-Symbol Differential Sphere Detection Aided Differential Space-Time Block Codes Using QAM Constellations. IEEE Signal Processing Letters, 2011, 18, 497-500.	2.1	24
14	Near-Capacity Wireless System Design Principles. IEEE Communications Surveys and Tutorials, 2015, 17, 1806-1833.	24.8	24
15	Algebraic Differential Spatial Modulation is Capable of Approaching the Performance of its Coherent Counterpart. IEEE Transactions on Communications, 2017, , 1-1.	4.9	23
16	Fifty Years of Noise Modeling and Mitigation in Power-Line Communications. IEEE Communications Surveys and Tutorials, 2021, 23, 41-69.	24.8	23
17	Single-RF Index Shift Keying Aided Differential Spaceâ€"Time Block Coding. IEEE Transactions on Signal Processing, 2018, 66, 773-788.	3.2	21
18	Reconfigurable Intelligent Surface Assisted Multi-Carrier Wireless Systems for Doubly Selective High-Mobility Ricean Channels. IEEE Transactions on Vehicular Technology, 2022, 71, 4023-4041.	3.9	21

#	Article	IF	Citations
19	Reduced-complexity noncoherently detected Differential Space-Time Shift Keying. , 2011, , .		20
20	Differential Space-Time Coding Dispensing With Channel Estimation Approaches the Performance of Its Coherent Counterpart in the Open-Loop Massive MIMO-OFDM Downlink. IEEE Transactions on Communications, 2018, 66, 6190-6204.	4.9	20
21	Finite-Cardinality Single-RF Differential Space-Time Modulation for Improving the Diversity-Throughput Tradeoff. IEEE Transactions on Communications, 2019, 67, 318-335.	4.9	20
22	Joint Training of the Superimposed Direct and Reflected Links in Reconfigurable Intelligent Surface Assisted Multiuser Communications. IEEE Transactions on Green Communications and Networking, 2022, 6, 739-754.	3.5	19
23	Reduced-Complexity Soft-Decision Aided Space-Time Shift Keying. IEEE Signal Processing Letters, 2011, 18, 547-550.	2.1	18
24	Reduced-Complexity Approx-Log-MAP and Max-Log-MAP Soft PSK/QAM Detection Algorithms. IEEE Transactions on Communications, 2013, 61, 1415-1425.	4.9	17
25	Reduced-Complexity Noncoherent Soft-Decision-Aided DAPSK Dispensing With Channel Estimation. IEEE Transactions on Vehicular Technology, 2013, 62, 2633-2643.	3.9	17
26	Multiple-Symbol Joint Signal Processing for Differentially Encoded Single- and Multi-Carrier Communications: Principles, Designs and Applications. IEEE Communications Surveys and Tutorials, 2014, 16, 689-712.	24.8	14
27	â€œNear-Perfectâ€•Finite-Cardinality Generalized Space-Time Shift Keying. IEEE Journal on Selected Areas in Communications, 2019, 37, 2146-2164.	9.7	14
28	Multiple-Symbol Differential Sphere Detection and Decision-Feedback Differential Detection Conceived for Differential QAM. IEEE Transactions on Vehicular Technology, 2016, 65, 8345-8360.	3.9	13
29	Iterative Receiver Design for Polar-Coded SCMA Systems. IEEE Transactions on Communications, 2021, 69, 4235-4246.	4.9	13
30	Constant-Envelope Space-Time Shift Keying. IEEE Journal on Selected Topics in Signal Processing, 2019, 13, 1387-1402.	7.3	11
31	Near-Instantaneously Adaptive Multi-Set Space-Time Shift Keying for UAV-Aided Video Surveillance. IEEE Transactions on Vehicular Technology, 2020, 69, 12843-12856.	3.9	11
32	Optimal Pilot Power Based Channel Estimation Improves the Throughput of Intelligent Reflective Surface Assisted Systems. IEEE Transactions on Vehicular Technology, 2020, 69, 16202-16206.	3.9	11
33	Reduced-Complexity Soft-Decision Multiple-Symbol Differential Sphere Detection. IEEE Transactions on Communications, 2015, 63, 3275-3289.	4.9	9
34	Soft-Decision Multiple-Symbol Differential Sphere Detection and Decision-Feedback Differential Detection for Differential QAM Dispensing with Channel Estimation in the Face of Rapidly Fading Channels. IEEE Transactions on Wireless Communications, 2016, 15, 4408-4425.	6.1	9
35	Impulsive Noise Mitigation in Digital Subscriber Lines: The State-of-the-Art and Research Opportunities. IEEE Communications Magazine, 2019, 57, 145-151.	4.9	9
36	Deep Learning-Aided Optical IM/DD OFDM Approaches the Throughput of RF-OFDM. IEEE Journal on Selected Areas in Communications, 2022, 40, 212-226.	9.7	9

#	Article	IF	Citations
37	Multicarrier Division Duplex Aided Millimeter Wave Communications. IEEE Access, 2019, 7, 100719-100732.	2.6	8
38	Near-Capacity Irregular Convolutional Coded Cooperative Differential Linear Dispersion Codes Using Multiple-Symbol Differential Detection. IEEE Signal Processing Letters, 2011, 18, 173-176.	2.1	7
39	Performance of HARQ-Assisted OFDM Systems Contaminated by Impulsive Noise: Finite-Length LDPC Code Analysis. IEEE Access, 2019, 7, 14112-14123.	2.6	7
40	Space-, Time- and Frequency-Domain Index Modulation for Next-Generation Wireless: A Unified Single-/Multi-Carrier and Single-/Multi-RF MIMO Framework. IEEE Transactions on Wireless Communications, 2021, 20, 3847-3864.	6.1	7
41	Turbo Detection Aided Autoencoder for Multicarrier Wireless Systems: Integrating Deep Learning Into Channel Coded Systems. IEEE Transactions on Cognitive Communications and Networking, 2022, 8, 600-614.	4.9	7
42	Artificially Time-Varying Differential MIMO for Achieving Practical Physical Layer Security. IEEE Open Journal of the Communications Society, 2021, 2, 2180-2194.	4.4	6
43	The Achievable Rate Analysis of Generalized Quadrature Spatial Modulation and a Pair of Low-Complexity Detectors. IEEE Transactions on Vehicular Technology, 2022, 71, 5203-5215.	3.9	6
44	Air-to-Ground NOMA Systems for the â€œInternet-Above-the-Cloudsâ€. IEEE Access, 2018, 6, 47442-47460.	2.6	5
45	Scalable Panoramic Wireless Video Streaming Relying on Optimal-Rate FEC-Coded Adaptive QAM. IEEE Transactions on Vehicular Technology, 2020, 69, 11206-11219.	3.9	5
46	Joint Impulsive Noise Estimation and Data Detection Conceived for LDPC-Coded DMT-Based DSL Systems. IEEE Access, 2017, 5, 23133-23145.	2.6	5
47	Low-Complexity Improved-Rate Generalised Spatial Modulation: Bit-to-Symbol Mapping, Detection and Performance Analysis. IEEE Transactions on Vehicular Technology, 2022, 71, 1060-1065.	3.9	5
48	Subcarrier Subset Selection-Aided Transmit Precoding Achieves Full-Diversity in Index Modulation. IEEE Transactions on Vehicular Technology, 2019, 68, 11031-11041.	3.9	3
49	Unity-Rate Coding Improves the Iterative Detection Convergence of Autoencoder-Aided Communication Systems. IEEE Transactions on Vehicular Technology, 2022, 71, 5037-5047.	3.9	2
50	Energy Efficient Transmission Based on Grouped Spatial Modulation for Upstream DSL Systems. IEEE Access, 2019, 7, 88312-88326.	2.6	0
51	Optimal-Power Superposition Modulation for Scalable Video Broadcasting. IEEE Transactions on Vehicular Technology, 2020, 69, 16230-16234.	3.9	0