Erik G Larsson

List of Publications by Year
in descending order

318 papers	31,353 citations	17440 63 h-index	5679 162 g-index
319 all docs	319 docs citations	319 times ranked	10634 citing authors

#	ARTICLE	IF	CITATIONS
1	Massive MIMO for next generation wireless systems. IEEE Communications Magazine, 2014, 52, 186-195.	6.1	5,006
2	Scaling Up MIMO: Opportunities and Challenges with Very Large Arrays. IEEE Signal Processing Magazine, 2013, 30, 40-60.	5.6	4,222
3	Energy and Spectral Efficiency of Very Large Multiuser MIMO Systems. IEEE Transactions on Communications, 2013, 61, 1436-1449.	7.8	2,423
4	Cell-Free Massive MIMO Versus Small Cells. IEEE Transactions on Wireless Communications, 2017, 16, 1834-1850.	9.2	1,399
5	Spectrum Sensing for Cognitive Radio : State-of-the-Art and Recent Advances. IEEE Signal Processing Magazine, 2012, 29, 101-116.	5.6	906
6	Massive MIMO: ten myths and one critical question. IEEE Communications Magazine, 2016, 54, 114-123.	6.1	882
7	Towards 6G wireless communication networks: vision, enabling technologies, and new paradigm shifts. Science China Information Sciences, 2021, 64, 1.	4.3	858
8	Intelligent Reflecting Surface Versus Decode-and-Forward: How Large Surfaces are Needed to Beat Relaying?. IEEE Wireless Communications Letters, 2020, 9, 244-248.	5.0	560
9	Weighted Sum-Rate Maximization for Reconfigurable Intelligent Surface Aided Wireless Networks. IEEE Transactions on Wireless Communications, 2020, 19, 3064-3076.	9.2	498
10	On the Total Energy Efficiency of Cell-Free Massive MIMO. IEEE Transactions on Green Communications and Networking, 2018, 2, 25-39.	5.5	459
11	Massive MIMO for Maximal Spectral Efficiency: How Many Users and Pilots Should Be Allocated?. IEEE Transactions on Wireless Communications, 2016, 15, 1293-1308.	9.2	429
12	Intelligent Reflecting Surfaces: Physics, Propagation, and Pathloss Modeling. IEEE Wireless Communications Letters, 2020, 9, 581-585.	5.0	415
13	Complete Characterization of the Pareto Boundary for the MISO Interference Channel. IEEE Transactions on Signal Processing, 2008, 56, 5292-5296.	5.3	406
14	Massive Access for 5G and Beyond. IEEE Journal on Selected Areas in Communications, 2021, 39, 615-637.	14.0	347
15	Ubiquitous cell-free Massive MIMO communications. Eurasip Journal on Wireless Communications and Networking, 2019, 2019, .	2.4	317
16	EVD-based channel estimation in multicell multiuser MIMO systems with very large antenna arrays. , 2012, , .		314
17	Sparse Signal Processing for Grant-Free Massive Connectivity: A Future Paradigm for Random Access Protocols in the Internet of Things. IEEE Signal Processing Magazine, 2018, 35, 88-99.	5.6	314
18	Uplink Performance of Wideband Massive MIMO With One-Bit ADCs. IEEE Transactions on Wireless Communications, 2017, 16, 87-100.	9.2	277

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19	The Multicell Multiuser MIMO Uplink with Very Large Antenna Arrays and a Finite-Dimensional Channel. IEEE Transactions on Communications, 2013, 61, 2350-2361.	7.8	272
20	Per-Antenna Constant Envelope Precoding for Large Multi-User MIMO Systems. IEEE Transactions on Communications, 2013, 61, 1059-1071.	7.8	269
21	Competition Versus Cooperation on the MISO Interference Channel. IEEE Journal on Selected Areas in Communications, 2008, 26, 1059-1069.	14.0	248
22	Cell-Free Massive MIMO: Uniformly great service for everyone. , 2015, , .		237
23	Massive MIMO in Real Propagation Environments: Do All Antennas Contribute Equally?. IEEE Transactions on Communications, 2015, 63, 3917-3928.	7.8	210
24	Active Reconfigurable Intelligent Surface-Aided Wireless Communications. IEEE Transactions on Wireless Communications, 2021, 20, 4962-4975.	9.2	202
25	Reconfigurable Intelligent Surfaces: Three Myths and Two Critical Questions. IEEE Communications Magazine, 2020, 58, 90-96.	6.1	194
26	Analysis of the pilot contamination effect in very large multicell multiuser MIMO systems for physical channel models. , 2011, , .		192
27	Grant-Free Massive MTC-Enabled Massive MIMO: A Compressive Sensing Approach. IEEE Transactions on Communications, 2018, 66, 6164-6175.	7.8	186
28	No Downlink Pilots Are Needed in TDD Massive MIMO. IEEE Transactions on Wireless Communications, 2017, 16, 2921-2935.	9.2	173
29	Adversarial Attacks on Deep-Learning Based Radio Signal Classification. IEEE Wireless Communications Letters, 2019, 8, 213-216.	5.0	170
30	On the Optimality of Single-Carrier Transmission in Large-Scale Antenna Systems. IEEE Wireless Communications Letters, 2012, 1, 276-279.	5.0	164
31	PAR-Aware Large-Scale Multi-User MIMO-OFDM Downlink. IEEE Journal on Selected Areas in Communications, 2013, 31, 303-313.	14.0	155
32	Intelligent Reflecting Surface-Assisted Cognitive Radio System. IEEE Transactions on Communications, 2021, 69, 675-687.	7.8	146
33	Joint Power Allocation and User Association Optimization for Massive MIMO Systems. IEEE Transactions on Wireless Communications, 2016, 15, 6384-6399.	9.2	139
34	Massive MIMO With Spatially Correlated Rician Fading Channels. IEEE Transactions on Communications, 2019, 67, 3234-3250.	7.8	136
35	Symbiotic Radio: Cognitive Backscattering Communications for Future Wireless Networks. IEEE Transactions on Cognitive Communications and Networking, 2020, 6, 1242-1255.	7.9	136
36	Multi-pair amplify-and-forward relaying with very large antenna arrays. , 2013, , .		130

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37	Uplink Performance of Time-Reversal MRC in Massive MIMO Systems Subject to Phase Noise. IEEE Transactions on Wireless Communications, 2015, 14, 711-723.	9.2	130
38	Uplink Performance Analysis of Multicell MU-SIMO Systems With ZF Receivers. IEEE Transactions on Vehicular Technology, 2013, 62, 4471-4483.	6.3	128
39	Weighted Sum-Rate Maximization for Intelligent Reflecting Surface Enhanced Wireless Networks. , 2019, , .		126
40	Game theory and the flat-fading gaussian interference channel. IEEE Signal Processing Magazine, 2009, 26, 18-27.	5.6	120
41	Single-User Beamforming in Large-Scale MISO Systems with Per-Antenna Constant-Envelope Constraints: The Doughnut Channel. IEEE Transactions on Wireless Communications, 2012, 11, 3992-4005.	9.2	111
42	Scalability Aspects of Cell-Free Massive MIMO. , 2019, , .		111
43	Local Partial Zero-Forcing Precoding for Cell-Free Massive MIMO. IEEE Transactions on Wireless Communications, 2020, 19, 4758-4774.	9.2	111
44	Massive MIMO With Optimal Power and Training Duration Allocation. IEEE Wireless Communications Letters, 2014, 3, 605-608.	5.0	110
45	A Random Access Protocol for Pilot Allocation in Crowded Massive MIMO Systems. IEEE Transactions on Wireless Communications, 2017, 16, 2220-2234.	9.2	108
46	Joint Pilot Design and Uplink Power Allocation in Multi-Cell Massive MIMO Systems. IEEE Transactions on Wireless Communications, 2018, 17, 2000-2015.	9.2	107
47	On the Feasibility of Wireless Energy Transfer Using Massive Antenna Arrays. IEEE Transactions on Wireless Communications, 2016, 15, 3466-3480.	9.2	105
48	The Higher-Order Singular Value Decomposition: Theory and an Application [Lecture Notes. IEEE Signal Processing Magazine, 2010, 27, 151-154.	5.6	103
49	Is NOMA Efficient in Multi-Antenna Networks? A Critical Look at Next Generation Multiple Access Techniques. IEEE Open Journal of the Communications Society, 2021, 2, 1310-1343.	6.9	102
50	Fixed-Complexity Soft MIMO Detection via Partial Marginalization. IEEE Transactions on Signal Processing, 2008, 56, 3397-3407.	5.3	101
51	Massive MIMO for Communications With Drone Swarms. IEEE Transactions on Wireless Communications, 2018, 17, 1604-1629.	9.2	98
52	Fingerprinting-Based Positioning in Distributed Massive MIMO Systems. , 2015, , .		93
53	Power Control in Cellular Massive MIMO With Varying User Activity: A Deep Learning Solution. IEEE Transactions on Wireless Communications, 2020, 19, 5732-5748.	9.2	90
54	Physical Adversarial Attacks Against End-to-End Autoencoder Communication Systems. IEEE Communications Letters, 2019, 23, 847-850.	4.1	89

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55	Joint Power Allocation and Load Balancing Optimization for Energy-Efficient Cell-Free Massive MIMO Networks. IEEE Transactions on Wireless Communications, 2020, 19, 6798-6812.	9.2	84
56	Massive MIMO with multi-cell MMSE processing: exploiting all pilots for interference suppression. Eurasip Journal on Wireless Communications and Networking, 2017, 2017, .	2.4	83
57	Wireless Information and Power Transfer in Multiway Massive MIMO Relay Networks. IEEE Transactions on Wireless Communications, 2016, 15, 3837-3855.	9.2	82
58	Optimal Pilot and Payload Power Control in Single-Cell Massive MIMO Systems. IEEE Transactions on Signal Processing, 2017, 65, 2363-2378.	5.3	77
59	Massive MIMO for Internet of Things (IoT) connectivity. Physical Communication, 2019, 37, 100859.	2.1	77
60	Jamming-Resistant Receivers for the Massive MIMO Uplink. IEEE Transactions on Information Forensics and Security, 2018, 13, 210-223.	6.9	76
61	Random Access Protocols for Massive MIMO. IEEE Communications Magazine, 2017, 55, 216-222.	6.1	72
62	Cognitive radio in a frequency-planned environment: some basic limits. IEEE Transactions on Wireless Communications, 2008, 7, 4800-4806.	9.2	70
63	What Role can NOMA Play in Massive MIMO?. IEEE Journal on Selected Topics in Signal Processing, 2019, 13, 597-611.	10.8	70
64	Energy Efficiency of the Cell-Free Massive MIMO Uplink With Optimal Uniform Quantization. IEEE Transactions on Green Communications and Networking, 2019, 3, 971-987.	5.5	69
65	Waveforms for the Massive MIMO Downlink: Amplifier Efficiency, Distortion, and Performance. IEEE Transactions on Communications, 2016, 64, 5050-5063.	7.8	66
66	Optimal Channel Estimation for Reciprocity-Based Backscattering With a Full-Duplex MIMO Reader. IEEE Transactions on Signal Processing, 2019, 67, 1662-1677.	5.3	66
67	Monotonic Optimization Framework for the Two-User MISO Interference Channel. IEEE Transactions on Communications, 2010, 58, 2159-2168.	7.8	65
68	Performance Analysis of NOMA in Training-Based Multiuser MIMO Systems. IEEE Transactions on Wireless Communications, 2018, 17, 372-385.	9.2	65
69	Optimal Power Allocation for Hybrid ARQ with Chase Combining in i.i.d. Rayleigh Fading Channels. IEEE Transactions on Communications, 2013, 61, 1835-1846.	7.8	64
70	How Much Do Downlink Pilots Improve Cell-Free Massive MIMO?. , 2016, , .		63
71	Downlink Training in Cell-Free Massive MIMO: A Blessing in Disguise. IEEE Transactions on Wireless Communications, 2019, 18, 5153-5169.	9.2	63
72	The MISO interference channel from a game-theoretic perspective: A combination of selfishness and altruism achieves pareto optimality. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	62

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73	Cooperative transmission based on decode-and-forward relaying with partial repetition coding. IEEE Transactions on Wireless Communications, 2009, 8, 1716-1725.	9.2	62
74	Massive MIMO Performance—TDD Versus FDD: What Do Measurements Say?. IEEE Transactions on Wireless Communications, 2018, 17, 2247-2261.	9.2	61
75	Random Pilot and Data Access in Massive MIMO for Machine-Type Communications. IEEE Transactions on Wireless Communications, 2017, 16, 7703-7717.	9.2	60
76	Outage-Optimal Power Allocation for Hybrid ARQ with Incremental Redundancy. IEEE Transactions on Wireless Communications, 2011, 10, 2069-2074.	9.2	58
77	Fast Blind Recognition of Channel Codes. IEEE Transactions on Communications, 2014, 62, 1393-1405.	7.8	58
78	On the Performance of Cell-Free Massive MIMO in Ricean Fading. , 2018, , .		58
79	Target Tracking in Confined Environments With Uncertain Sensor Positions. IEEE Transactions on Vehicular Technology, 2016, 65, 870-882.	6.3	57
80	Max–Min Fair Transmit Precoding for Multi-Group Multicasting in Massive MIMO. IEEE Transactions on Wireless Communications, 2018, 17, 1358-1373.	9.2	53
81	Performance Analysis of FDD Massive MIMO Systems Under Channel Aging. IEEE Transactions on Wireless Communications, 2018, 17, 1094-1108.	9.2	53
82	Spatio-Temporal Waveform Design for Multiuser Massive MIMO Downlink With 1-bit Receivers. IEEE Journal on Selected Topics in Signal Processing, 2017, 11, 347-362.	10.8	49
83	Analytic Framework for the Effective Rate of MISO Fading Channels. IEEE Transactions on Communications, 2012, 60, 1741-1751.	7.8	48
84	Joint Beamforming and Broadcasting in Massive MIMO. IEEE Transactions on Wireless Communications, 2016, 15, 3058-3070.	9.2	48
85	Spatial Characteristics of Distortion Radiated From Antenna Arrays With Transceiver Nonlinearities. IEEE Transactions on Wireless Communications, 2018, 17, 6663-6679.	9.2	48
86	Using Intelligent Reflecting Surfaces for Rank Improvement in MIMO Communications. , 2020, , .		48
87	Measurement Analysis and Channel Modeling for TOA-Based Ranging in Tunnels. IEEE Transactions on Wireless Communications, 2015, 14, 456-467.	9.2	47
88	Large-Scale Multipair Two-Way Relay Networks with Distributed AF Beamforming. IEEE Communications Letters, 2013, 17, 1-4.	4.1	46
89	Cell-Free Massive MIMO with Radio Stripes and Sequential Uplink Processing. , 2020, , .		46
90	On Optimal Link Activation With Interference Cancelation in Wireless Networking. IEEE Transactions on Vehicular Technology, 2013, 62, 939-945.	6.3	45

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91	Kernel Methods for Accurate UWB-Based Ranging With Reduced Complexity. IEEE Transactions on Wireless Communications, 2016, 15, 1783-1793.	9.2	45
92	Efficient DSP and Circuit Architectures for Massive MIMO: State of the Art and Future Directions. IEEE Transactions on Signal Processing, 2018, 66, 4717-4736.	5.3	45
93	A Fast Scheme for Blind Identification of Channel Codes. , 2011, , .		44
94	Performance analysis of (TDD) massive MIMO with Kalman channel prediction. , 2017, , .		43
95	Out-of-Band Radiation from Large Antenna Arrays. IEEE Communications Magazine, 2018, 56, 196-203.	6.1	42
96	Age of Information in a Multiple Access Channel with Heterogeneous Traffic and an Energy Harvesting Node. , 2019, , .		41
97	Out-of-Band Radiation From Antenna Arrays Clarified. IEEE Wireless Communications Letters, 2018, 7, 610-613.	5.0	40
98	Massive MU-MIMO downlink TDD systems with linear precoding and downlink pilots. , 2013, , .		39
99	The Sign-Definiteness Lemma and Its Applications to Robust Transceiver Optimization for Multiuser MIMO Systems. IEEE Transactions on Signal Processing, 2013, 61, 238-252.	5.3	39
100	Sum Throughput Maximization in Multi-Tag Backscattering to Multiantenna Reader. IEEE Transactions on Communications, 2019, 67, 5689-5705.	7.8	38
101	MMSE-Optimal Sequential Processing for Cell-Free Massive MIMO With Radio Stripes. IEEE Transactions on Communications, 2021, 69, 7775-7789.	7.8	38
102	Overview of spectrum sensing for cognitive radio. , 2010, , .		37
103	On the performance of cell-free massive MIMO with short-term power constraints. , 2016, , .		37
104	Random access protocol for massive MIMO: Strongest-user collision resolution (SUCR). , 2016, , .		37
105	How Energy-Efficient Can a Wireless Communication System Become?. , 2018, , .		36
106	Uplink Spectral and Energy Efficiency of Cell-Free Massive MIMO With Optimal Uniform Quantization. IEEE Transactions on Communications, 2021, 69, 223-245.	7.8	36
107	Selfishness and altruism on the MISO interference channel: the case of partial transmitter CSI. IEEE Communications Letters, 2009, 13, 667-669.	4.1	35
108	Energy efficiency optimization for cell-free massive MIMO. , 2017, , .		33

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109	Multi-Tag Backscattering to MIMO Reader: Channel Estimation and Throughput Fairness. IEEE Transactions on Wireless Communications, 2019, 18, 5584-5599.	9.2	33
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111	Optimizing multi-cell massive MIMO for spectral efficiency: How Many users should be scheduled?. , 2014, , .		32
112	A Multi-Cell MMSE Precoder for Massive MIMO Systems and New Large System Analysis. , 2015, , .		32
113	Detection and mitigation of jamming attacks in massive MIMO systems using random matrix theory. , 2016, , .		32
114	Joint Unicast and Multi-Group Multicast Transmission in Massive MIMO Systems. IEEE Transactions on Wireless Communications, 2018, 17, 6375-6388.	9.2	32
115	Massively Distributed Antenna Systems With Nonideal Optical Fiber Fronthauls: A Promising Technology for 6G Wireless Communication Systems. IEEE Vehicular Technology Magazine, 2020, 15, 43-51.	3.4	31
116	On the Performance of Backhaul Constrained Cell-Free Massive MIMO with Linear Receivers. , 2018, , .		29
117	Optimized Power Control for Massive MIMO With Underlaid D2D Communications. IEEE Transactions on Communications, 2019, 67, 2763-2778.	7.8	28
118	Some fundamental limits on frequency synchronization in massive MIMO. , 2013, , .		27
119	Amplifier-Aware Multiple-Input Single-Output Capacity. IEEE Transactions on Communications, 2014, 62, 913-919.	7.8	27
120	Uplink pilot and data power control for single cell massive MIMO systems with MRC. , 2015, , .		27
121	Massive MIMO for Connectivity With Drones: Case Studies and Future Directions. IEEE Access, 2019, 7, 94676-94691.	4.2	27
122	Sensor-Network-Aided Cognitive Radio: On the Optimal Receiver for Estimate-and-Forward Protocols Applied to the Relay Channel. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	26
123	Downlink Spectral Efficiency of Cell-Free Massive MIMO with Full-Pilot Zero-Forcing. , 2018, , .		26
124	Clustering-Based Activity Detection Algorithms for Grant-Free Random Access in Cell-Free Massive MIMO. IEEE Transactions on Communications, 2021, 69, 7520-7530.	7.8	26
125	Accuracy Comparison of LS and Squared-Range LS for Source Localization. IEEE Transactions on Signal Processing, 2010, 58, 916-923.	5.3	25
126	Spectrum sensing methods for detection of DVB-T signals in AWGN and fading channels. , 2010, , .		25

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127	A Multi-Cell MMSE Detector for Massive MIMO Systems and New Large System Analysis. , 2015, , .		25
128	A scalable architecture for massive MIMO base stations using distributed processing. , 2016, , .		25
129	Optimizing Information Freshness in a Multiple Access Channel With Heterogeneous Devices. IEEE Open Journal of the Communications Society, 2021, 2, 456-470.	6.9	25
130	Globally Optimal Resource Allocation for Achieving Maximum Weighted Sum Rate. , 2010, , .		24
131	Achievable uplink rates for massive MIMO with coarse quantization. , 2017, , .		24
132	Device Activity and Embedded Information Bit Detection Using AMP in Massive MIMO. , 2017, , .		24
133	Sum Spectral Efficiency Maximization in Massive MIMO Systems: Benefits from Deep Learning. , 2019, , .		24
134	Enhanced Normalized Conjugate Beamforming for Cell-Free Massive MIMO. IEEE Transactions on Communications, 2021, 69, 2863-2877.	7.8	24
135	Partial Marginalization Soft MIMO Detection With Higher Order Constellations. IEEE Transactions on Signal Processing, 2011, 59, 453-458.	5.3	23
136	RadioWeaves for efficient connectivity: analysis and impact of constraints in actual deployments. , 2019, , .		23
137	Joint Transmit and Circuit Power Minimization in Massive MIMO With Downlink SINR Constraints: When to Turn on Massive MIMO?. IEEE Transactions on Wireless Communications, 2019, 18, 1834-1846.	9.2	22
138	Linear Multihop Amplify-and-Forward Relay Channels: Error Exponent and Optimal Number of Hops. IEEE Transactions on Wireless Communications, 2011, 10, 3834-3842.	9.2	21
139	Closed-form parameterization of the Pareto boundary for the two-user MISO interference channel. , 2011, , .		20
140	Out-of-band radiation measure for MIMO arrays with beamformed transmission. , 2016, , .		20
141	Random access for massive MIMO systems with intra-cell pilot contamination. , 2016, , .		20
142	Dynamic Resource Allocation in Co-Located and Cell-Free Massive MIMO. IEEE Transactions on Green Communications and Networking, 2020, 4, 209-220.	5.5	20
143	Soft-Decision Metrics for Coded Orthogonal Signaling in Symmetric Alpha-Stable Noise. IEEE Transactions on Signal Processing, 2008, 56, 266-273.	5.3	19
144	Uplink performance analysis of multicell MU-MIMO with zero-forcing receivers and perfect CSI. , 2011, , .		19

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145	Effect of oscillator phase noise on uplink performance of large MU-MIMO systems. , 2012, , .		19
146	Efficient Computation of Pareto Optimal Beamforming Vectors for the MISO Interference Channel With Successive Interference Cancellation. IEEE Transactions on Signal Processing, 2013, 61, 4782-4795.	5.3	19
147	Blind estimation of effective downlink channel gains in massive MIMO. , 2015, , .		19
148	Techniques for System Information Broadcast in Cell-Free Massive MIMO. IEEE Transactions on Communications, 2019, 67, 244-257.	7.8	19
149	Max-Min Optimal Beamforming for Cell-Free Massive MIMO. IEEE Communications Letters, 2020, 24, 2344-2348.	4.1	19
150	Blind Channel Estimation for Downlink Massive MIMO Systems With Imperfect Channel Reciprocity. IEEE Transactions on Signal Processing, 2020, 68, 3132-3145.	5.3	19
151	Adversarial Attacks on Deep Learning Based Power Allocation in a Massive MIMO Network. , 2021, , .		19
152	On the separability of signal and interference-plus-noise subspaces in blind pilot decontamination. , 2016, , .		18
153	Primary System Detection for Cognitive Radio: Does Small-Scale Fading Help?. IEEE Communications Letters, 2007, 11, 799-801.	4.1	17
154	ML Detection in Phase Noise Impaired SIMO Channels With Uplink Training. IEEE Transactions on Communications, 2016, 64, 223-235.	7.8	17
155	Impact of Spatial Filtering on Distortion From Low-Noise Amplifiers in Massive MIMO Base Stations. IEEE Transactions on Communications, 2018, 66, 6050-6067.	7.8	17
156	On the Energy Efficiency of Limited-Backhaul Cell-Free Massive MIMO. , 2019, , .		17
157	Multi-Cell Massive MIMO Uplink With Underlay Spectrum Sharing. IEEE Transactions on Cognitive Communications and Networking, 2019, 5, 119-137.	7.9	17
158	Parameterization of the MISO interference channel with transmit beamforming and partial channel state information. , 2008, , .		16
159	Spectral efficiency of the multipair two-way relay channel with massive arrays. , 2013, , .		16
160	Achievable rates of ZF receivers in massive MIMO with phase noise impairments. , 2013, , .		16
161	Jamming a TDD Point-to-Point Link Using Reciprocity-Based MIMO. IEEE Transactions on Information Forensics and Security, 2017, 12, 2957-2970.	6.9	15
162	Analysis of Nonorthogonal Training in Massive MIMO Under Channel Aging With SIC Receivers. IEEE Signal Processing Letters, 2019, 26, 282-286.	3.6	15

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163	Asymptotically optimal transmit strategies for the multiple antenna interference channel. , 2008, , .		14
164	Linear precoding in multiple antenna broadcast channels: Efficient computation of the achievable rate region. , 2008, , .		14
165	Comparison of Strategies for Signaling of Scheduling Assignments in Wireless OFDMA. IEEE Transactions on Vehicular Technology, 2010, 59, 4527-4542.	6.3	14
166	A unified framework for GLRT-based spectrum sensing of signals with covariance matrices with known eigenvalue multiplicities. , 2011, , .		14
167	Piggybacking an Additional Lonely Bit on Linearly Coded Payload Data. IEEE Wireless Communications Letters, 2012, 1, 292-295.	5.0	14
168	Joint pilot sequence design and power control for Max-Min fairness in uplink massive MIMO. , 2017, , .		14
169	Optimal OFDMA Downlink Scheduling Under a Control Signaling Cost Constraint. IEEE Transactions on Communications, 2010, 58, 2776-2781.	7.8	13
170	Joint Source-Channel Coding for the MIMO Broadcast Channel. IEEE Transactions on Signal Processing, 2012, 60, 2085-2090.	5.3	13
171	Improving 3GPP-LTE Uplink Control Signaling Performance Using Complex-Field Coding. IEEE Transactions on Vehicular Technology, 2013, 62, 161-171.	6.3	13
172	GNSS spoofing detection using multiple mobile COTS receivers. , 2015, , .		13
173	Downlink Power Control in Massive MIMO Networks with Distributed Antenna Arrays. , 2018, , .		13
174	An Algorithm for Grant-Free Random Access in Cell-Free Massive MIMO. , 2020, , .		13
175	A Bayesian approach to spectrum sensing, denoising and anomaly detection. , 2009, , .		12
176	Does non-orthogonal spectrum sharing in the same cell improve the sum-rate of wireless operators?. , 2012, , .		12
177	Statistical test for GNSS spoofing attack detection by using multiple receivers on a rigid body. Eurasip Journal on Advances in Signal Processing, 2020, 2020, .	1.7	12
178	Pareto-optimal beamforming for the MISO interference channel with partial CSI. , 2009, , .		11
179	Outage rate regions for the MISO IFC. , 2009, , .		11
180	Stopping Criterion for Complexity Reduction of Sphere Decoding. IEEE Communications Letters, 2009, 13, 402-404.	4.1	11

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181	Three Practical Aspects of Massive MIMO: Intermittent User Activity, Pilot Synchronism, and Asymmetric Deployment. , 2015, , .		11
182	Massive MIMO at night: On the operation of massive MIMO in low traffic scenarios. , 2015, , .		11
183	Multi-cell massive MIMO performance with double scattering channels. , 2016, , .		11
184	Performance of In-Band Transmission of System Information in Massive MIMO Systems. IEEE Transactions on Wireless Communications, 2018, 17, 1700-1712.	9.2	11
185	Transactions letters - Combining long-term and low-rate short-term channel state information over correlated mimo channels. IEEE Transactions on Wireless Communications, 2008, 7, 2409-2414.	9.2	10
186	Implementation Aspects of Fixed-Complexity Soft-Output MIMO Detection. , 2009, , .		10
187	Massive MIMO as a cyber-weapon. , 2014, , .		10
188	Downlink power control for massive MIMO cellular systems with optimal user association. , 2016, , .		10
189	Passive Intelligent Surface Assisted MIMO Powered Sustainable IoT. , 2020, , .		10
190	Spectrum sensing of orthogonal space-time block coded signals with multiple receive antennas. , 2010, , .		9
191	Multiantenna spectrum sensing of a second-order cyclostationary signal. , 2011, , .		9
192	Robust joint optimization of MIMO two-way relay channels with imperfect CSI. , 2011, , .		9
193	Mixed-integer linear programming framework for max-min power control with single-stage interference cancellation. , 2011, , .		9
194	On the Value of Spectrum Sharing among Operators in Multicell Networks. , 2013, , .		9
195	Human and Machine Type Communications Can Coexist in Uplink Massive Mimo Systems. , 2018, , .		9
196	Introduction to the Special Issue on Array Signal Processing for Angular Models in Massive MIMO Communications. IEEE Journal on Selected Topics in Signal Processing, 2019, 13, 882-885.	10.8	9
197	Performance Analysis of Quantized Uplink Massive MIMO-OFDM With Oversampling Under Adjacent Channel Interference. IEEE Transactions on Communications, 2020, 68, 871-886.	7.8	9
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200	Finite-SNR Analysis and Optimization of Decode-and-Forward Relaying Over Slow-Fading Channels. IEEE Transactions on Vehicular Technology, 2009, 58, 4292-4305.	6.3	8
201	Comments on "Multiple Antenna Spectrum Sensing in Cognitive Radios". IEEE Transactions on Wireless Communications, 2011, 10, 1678-1680.	9.2	8
202	Superposition Modulation-Based Symmetric Relaying With Hybrid ARQ: Analysis and Optimization. IEEE Transactions on Vehicular Technology, 2011, 60, 3667-3683.	6.3	8
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