

Arnold Lee Swindlehurst

List of Publications by Year in descending order

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335
papers

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all docs

337
docs citations

337
times ranked

9403
citing authors

#	ARTICLE	IF	CITATIONS
1	Zero-Forcing Methods for Downlink Spatial Multiplexing in Multiuser MIMO Channels. IEEE Transactions on Signal Processing, 2004, 52, 461-471.	3.2	2,566
2	An Overview of Massive MIMO: Benefits and Challenges. IEEE Journal on Selected Topics in Signal Processing, 2014, 8, 742-758.	7.3	2,080
3	A Vector-Perturbation Technique for Near-Capacity Multiantenna Multiuser Communicationâ€™ Part I: Channel Inversion and Regularization. IEEE Transactions on Communications, 2005, 53, 195-202.	4.9	1,318
4	Principles of Physical Layer Security in Multiuser Wireless Networks: A Survey. IEEE Communications Surveys and Tutorials, 2014, 16, 1550-1573.	24.8	1,060
5	An introduction to the multi-user MIMO downlink. , 2004, 42, 60-67.		691
6	Millimeter-wave massive MIMO: the next wireless revolution?. , 2014, 52, 56-62.		657
7	A Vector-Perturbation Technique for Near-Capacity Multiantenna Multiuser Communicationâ€™ Part II: Perturbation. IEEE Transactions on Communications, 2005, 53, 537-544.	4.9	636
8	Modeling the statistical time and angle of arrival characteristics of an indoor multipath channel. IEEE Journal on Selected Areas in Communications, 2000, 18, 347-360.	9.7	554
9	Robust Beamforming for Security in MIMO Wiretap Channels With Imperfect CSI. IEEE Transactions on Signal Processing, 2011, 59, 351-361.	3.2	376
10	A performance analysis of subspace-based methods in the presence of model errors. I. The MUSIC algorithm. IEEE Transactions on Signal Processing, 1992, 40, 1758-1774.	3.2	373
11	Cooperative Jamming for Secure Communications in MIMO Relay Networks. IEEE Transactions on Signal Processing, 2011, 59, 4871-4884.	3.2	373
12	Channel Estimation and Performance Analysis of One-Bit Massive MIMO Systems. IEEE Transactions on Signal Processing, 2017, 65, 4075-4089.	3.2	367
13	Reconfigurable Intelligent Surfaces for 6G Systems: Principles, Applications, and Research Directions. IEEE Communications Magazine, 2021, 59, 14-20.	4.9	354
14	Wireless Relay Communications with Unmanned Aerial Vehicles: Performance and Optimization. IEEE Transactions on Aerospace and Electronic Systems, 2011, 47, 2068-2085.	2.6	297
15	Subspace-based signal analysis using singular value decomposition. Proceedings of the IEEE, 1993, 81, 1277-1308.	16.4	269
16	Experimental characterization of the MIMO wireless channel: data acquisition and analysis. IEEE Transactions on Wireless Communications, 2003, 2, 335-343.	6.1	243
17	Optimization of MANET connectivity via smart deployment/movement of unmanned air vehicles. IEEE Transactions on Vehicular Technology, 2009, 58, 3533-3546.	3.9	240
18	Secure Communication Via an Untrusted Non-Regenerative Relay in Fading Channels. IEEE Transactions on Signal Processing, 2013, 61, 2536-2550.	3.2	230

#	ARTICLE	IF	CITATIONS
19	Optimization of UAV Heading for the Ground-to-Air Uplink. IEEE Journal on Selected Areas in Communications, 2012, 30, 993-1005.	9.7	215
20	Channel Acquisition for Massive MIMO-OFDM With Adjustable Phase Shift Pilots. IEEE Transactions on Signal Processing, 2016, 64, 1461-1476.	3.2	214
21	A Comprehensive Overview on 5G-and-Beyond Networks With UAVs: From Communications to Sensing and Intelligence. IEEE Journal on Selected Areas in Communications, 2021, 39, 2912-2945.	9.7	202
22	Robust Secure Transmission in MISO Channels Based on Worst-Case Optimization. IEEE Transactions on Signal Processing, 2012, 60, 1696-1707.	3.2	200
23	Maximum likelihood methods in radar array signal processing. Proceedings of the IEEE, 1998, 86, 421-441.	16.4	195
24	Multiple invariance ESPRIT. IEEE Transactions on Signal Processing, 1992, 40, 867-881.	3.2	191
25	Performance Analysis of Multi-Antenna Hybrid Satellite-Terrestrial Relay Networks in the Presence of Interference. IEEE Transactions on Communications, 2015, 63, 4390-4404.	4.9	163
26	Azimuth/elevation direction finding using regular array geometries. IEEE Transactions on Aerospace and Electronic Systems, 1993, 29, 145-156.	2.6	153
27	Delay-Intolerant Covert Communications With Either Fixed or Random Transmit Power. IEEE Transactions on Information Forensics and Security, 2019, 14, 129-140.	4.5	151
28	Fixed SINR solutions for the MIMO wiretap channel. , 2009, , .		148
29	A Bayesian approach to auto-calibration for parametric array signal processing. IEEE Transactions on Signal Processing, 1994, 42, 3495-3507.	3.2	142
30	Jamming Games in the MIMO Wiretap Channel With an Active Eavesdropper. IEEE Transactions on Signal Processing, 2013, 61, 82-91.	3.2	135
31	Hybrid Precoder and Combiner Design With Low-Resolution Phase Shifters in mmWave MIMO Systems. IEEE Journal on Selected Topics in Signal Processing, 2018, 12, 256-269.	7.3	135
32	Detecting passive eavesdroppers in the MIMO wiretap channel. , 2012, , .		123
33	Blind and semi-blind equalization for generalized space-time block codes. IEEE Transactions on Signal Processing, 2002, 50, 2489-2498.	3.2	119
34	Downlink Resource Reuse for Device-to-Device Communications Underlying Cellular Networks. IEEE Signal Processing Letters, 2014, 21, 531-534.	2.1	119
35	Analysis of One-Bit Quantized Precoding for the Multiuser Massive MIMO Downlink. IEEE Transactions on Signal Processing, 2017, 65, 4624-4634.	3.2	119
36	Time delay and spatial signature estimation using known asynchronous signals. IEEE Transactions on Signal Processing, 1998, 46, 449-462.	3.2	116

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37	UAV-Assisted Intelligent Reflecting Surface Symbiotic Radio System. IEEE Transactions on Wireless Communications, 2021, 20, 5769-5785.	6.1	111
38	Solutions for the MIMO Gaussian Wiretap Channel With a Cooperative Jammer. IEEE Transactions on Signal Processing, 2011, 59, 5013-5022.	3.2	110
39	Passive direction-of-arrival and range estimation for near-field sources. , 0, , .		109
40	Secure Relay and Jammer Selection for Physical Layer Security. IEEE Signal Processing Letters, 2015, 22, 1147-1151.	2.1	100
41	A performance analysis of subspace-based methods in the presence of model error. II. Multidimensional algorithms. IEEE Transactions on Signal Processing, 1993, 41, 2882-2890.	3.2	96
42	Subspace-based estimation of time delays and Doppler shifts. IEEE Transactions on Signal Processing, 1998, 46, 2472-2483.	3.2	92
43	Massive MIMO for Wireless Sensing With a Coherent Multiple Access Channel. IEEE Transactions on Signal Processing, 2015, 63, 3005-3017.	3.2	89
44	Massive MIMO 1-Bit DAC Transmission: A Low-Complexity Symbol Scaling Approach. IEEE Transactions on Wireless Communications, 2018, 17, 7559-7575.	6.1	83
45	Downlink Achievable Rate Analysis in Massive MIMO Systems With One-Bit DACs. IEEE Communications Letters, 2017, 21, 1669-1672.	2.5	82
46	Multuser Full-Duplex Two-Way Communications via Intelligent Reflecting Surface. IEEE Transactions on Signal Processing, 2021, 69, 837-851.	3.2	82
47	A Comparison of Hybrid Beamforming and Digital Beamforming With Low-Resolution ADCs for Multiple Users and Imperfect CSI. IEEE Journal on Selected Topics in Signal Processing, 2018, 12, 484-498.	7.3	81
48	1-Bit Massive MIMO Transmission: Embracing Interference with Symbol-Level Precoding. IEEE Communications Magazine, 2021, 59, 121-127.	4.9	79
49	Optimal power allocation for GSVD-based beamforming in the MIMO Gaussian wiretap channel. , 2012, , .		72
50	Channel Estimation for RIS-Aided Multuser Millimeter-Wave Systems. IEEE Transactions on Signal Processing, 2022, 70, 1478-1492.	3.2	72
51	Quantized Constant Envelope Precoding With PSK and QAM Signaling. IEEE Transactions on Wireless Communications, 2018, 17, 8022-8034.	6.1	69
52	3D UAV Trajectory and Communication Design for Simultaneous Uplink and Downlink Transmission. IEEE Transactions on Communications, 2020, 68, 5908-5923.	4.9	66
53	Analysis of the combined effects of finite samples and model errors on array processing performance. IEEE Transactions on Signal Processing, 1994, 42, 3073-3083.	3.2	65
54	Channel Estimation With Reconfigurable Intelligent Surfacesâ€”A General Framework. Proceedings of the IEEE, 2022, 110, 1312-1338.	16.4	65

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55	A full-duplex active eavesdropper in mimo wiretap channels: Construction and countermeasures. , 2011, , .		64
56	Weighted subspace fitting for general array error models. IEEE Transactions on Signal Processing, 1998, 46, 2484-2498.	3.2	63
57	Spatial signature estimation for uniform linear arrays with unknown receiver gains and phases. IEEE Transactions on Signal Processing, 1999, 47, 2128-2138.	3.2	62
58	Cross-layer issues in MAC protocol design for MIMO ad hoc networks. IEEE Wireless Communications, 2006, 13, 62-76.	6.6	61
59	Subspace fitting with diversely polarized antenna arrays. IEEE Transactions on Antennas and Propagation, 1993, 41, 1687-1694.	3.1	60
60	Interference Exploitation Precoding for Multi-Level Modulations: Closed-Form Solutions. IEEE Transactions on Communications, 2021, 69, 291-308.	4.9	60
61	Performance Bounds for MIMO-OFDM Channel Estimation. IEEE Transactions on Signal Processing, 2009, 57, 1901-1916.	3.2	59
62	Generalised array manifold model for wireless communication channels with local scattering. IET Radar, Sonar & Navigation, 1998, 145, 51.	2.1	56
63	Exploiting arrays with multiple invariances using MUSIC and MODE. IEEE Transactions on Signal Processing, 2001, 49, 2511-2521.	3.2	56
64	MIMO Interference Channel With Confidential Messages: Achievable Secrecy Rates and Precoder Design. IEEE Transactions on Information Forensics and Security, 2011, 6, 640-649.	4.5	56
65	Blind Estimation of Sparse Broadband Massive MIMO Channels With Ideal and One-bit ADCs. IEEE Transactions on Signal Processing, 2018, 66, 2972-2983.	3.2	56
66	Dynamic UAV relay positioning for the ground-to-air uplink. , 2010, , .		55
67	Applying Bargaining Solutions to Resource Allocation in Multiuser MIMO-OFDMA Broadcast Systems. IEEE Journal on Selected Topics in Signal Processing, 2012, 6, 127-139.	7.3	55
68	Full Rank Solutions for the MIMO Gaussian Wiretap Channel With an Average Power Constraint. IEEE Transactions on Signal Processing, 2013, 61, 2620-2631.	3.2	54
69	On Secrecy Metrics for Physical Layer Security Over Quasi-Static Fading Channels. IEEE Transactions on Wireless Communications, 2016, 15, 6913-6924.	6.1	53
70	Highlights of statistical signal and array processing. IEEE Signal Processing Magazine, 1998, 15, 21-64.	4.6	52
71	Wireless indoor channel modeling: statistical agreement of ray tracing simulations and channel sounding measurements. , 0, , .		52
72	Device-to-device communications: The physical layer security advantage. , 2014, , .		52

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73	Dynamic Hybrid Beamforming With Low-Resolution PSs for Wideband mmWave MIMO-OFDM Systems. IEEE Journal on Selected Areas in Communications, 2020, 38, 2168-2181.	9.7	50
74	Buffer-Aided Relaying for Two-Hop Secure Communication. IEEE Transactions on Wireless Communications, 2015, 14, 152-164.	6.1	49
75	Joint Symbol-Level Precoding and Reflecting Designs for IRS-Enhanced MU-MISO Systems. IEEE Transactions on Wireless Communications, 2021, 20, 798-811.	6.1	49
76	Minimum probability-of-error perturbation precoding for the one-bit massive MIMO downlink. , 2017, , .		48
77	Multipair Massive MIMO Relaying Systems With One-Bit ADC<roman>&s</roman> and DAC<roman>&s</roman>. IEEE Transactions on Signal Processing, 2018, 66, 2984-2997.	3.2	46
78	Spectral Efficiency of Mixed-ADC Massive MIMO. IEEE Transactions on Signal Processing, 2018, 66, 3599-3613.	3.2	46
79	On the Optimality of Linear Precoding for Secrecy in the MIMO Broadcast Channel. IEEE Journal on Selected Areas in Communications, 2013, 31, 1701-1713.	9.7	45
80	Secret Channel Training to Enhance Physical Layer Security With a Full-Duplex Receiver. IEEE Transactions on Information Forensics and Security, 2018, 13, 2788-2800.	4.5	45
81	Cancelable Biometric Recognition With ECGs: Subspace-Based Approaches. IEEE Transactions on Information Forensics and Security, 2019, 14, 1323-1336.	4.5	45
82	Dual-Functional Radar-Communication Waveform Design: A Symbol-Level Precoding Approach. IEEE Journal on Selected Topics in Signal Processing, 2021, 15, 1316-1331.	7.3	45
83	16 Subspace methods for directions-of-arrival estimation. Handbook of Statistics, 1993, 10, 693-739.	0.4	43
84	Analysis of a decision directed beamformer. IEEE Transactions on Signal Processing, 1995, 43, 2920-2927.	3.2	43
85	Utility of beamforming strategies for secrecy in multiuser MIMO wiretap channels. , 2009, , .		43
86	Adaptive Limited Feedback for MISO Wiretap Channels With Cooperative Jamming. IEEE Transactions on Signal Processing, 2014, 62, 993-1004.	3.2	42
87	A Generalizable Model-and-Data Driven Approach for Open-Set RFF Authentication. IEEE Transactions on Information Forensics and Security, 2021, 16, 4435-4450.	4.5	42
88	Space-time autoregressive filtering for matched subspace STAP. IEEE Transactions on Aerospace and Electronic Systems, 2003, 39, 510-520.	2.6	40
89	Fixed-rate power allocation strategies for enhanced secrecy in MIMO wiretap channels. , 2009, , .		40
90	Throughput Maximization for UAV-Aided Backscatter Communication Networks. IEEE Transactions on Communications, 2020, 68, 1254-1270.	4.9	40

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91	A performance bound for prediction of MIMO channels. IEEE Transactions on Signal Processing, 2006, 54, 520-529.	3.2	38
92	Wireless Relay Communications using an Unmanned Aerial Vehicle. , 2006, , .		38
93	Smart deployment/movement of unmanned air vehicle to improve connectivity in MANET. , 2006, , .		38
94	Massive MIMO downlink 1-bit precoding with linear programming for PSK signaling. , 2017, , .		38
95	Cooperative Jamming in MIMO ad-hoc networks. , 2009, , .		36
96	Securing multi-antenna two-way relay channels with analog network coding against eavesdroppers. , 2010, , .		34
97	Channel allocation in multi-user MIMO wireless communications systems. , 2004, , .		33
98	SVM-Based Channel Estimation and Data Detection for One-Bit Massive MIMO Systems. IEEE Transactions on Signal Processing, 2021, 69, 2086-2099.	3.2	33
99	A statistical subspace method for blind channel identification in OFDM communications. , 0, , .		32
100	Secure Communications via Cooperative Jamming in Two-Hop Relay Systems. , 2010, , .		32
101	A Hybrid Approach to Spatial Multiplexing in Multiuser MIMO Downlinks. Eurasip Journal on Wireless Communications and Networking, 2004, 2004, 1.	1.5	31
102	Discrete double integrator consensus. , 2008, , .		31
103	Positioning and navigation with applications to communications [from the Guest Editors. IEEE Signal Processing Magazine, 2005, 22, 10-11.	4.6	30
104	Optimal strategies for countering dual-threat jamming/eavesdropping-capable adversaries in MIMO channels. , 2010, , .		29
105	The Extended Invariance Principle for Signal Parameter Estimation in an Unknown Spatial Field. IEEE Transactions on Signal Processing, 2011, 59, 3213-3225.	3.2	29
106	Secure Massive MIMO Communication With Low-Resolution DACs. IEEE Transactions on Communications, 2019, 67, 3265-3278.	4.9	29
107	Secure Communication for Spatially Sparse Millimeter-Wave Massive MIMO Channels via Hybrid Precoding. IEEE Transactions on Communications, 2020, 68, 887-901.	4.9	29
108	Channel estimation and uplink achievable rates in one-bit massive MIMO systems. , 2016, , .		28

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109	Joint Waveform and Filter Designs for STAP-SLP-Based MIMO-DFRC Systems. IEEE Journal on Selected Areas in Communications, 2022, 40, 1918-1931.	9.7	28
110	Optimal Power Allocation for Parameter Tracking in a Distributed Amplify-and-Forward Sensor Network. IEEE Transactions on Signal Processing, 2014, 62, 2200-2211.	3.2	27
111	Channel Estimation in One-Bit Massive MIMO Systems: Angular Versus Unstructured Models. IEEE Journal on Selected Topics in Signal Processing, 2019, 13, 1017-1031.	7.3	27
112	One-Bit Sigma-Delta MIMO Precoding. IEEE Journal on Selected Topics in Signal Processing, 2019, 13, 1046-1061.	7.3	27
113	The effects of array calibration errors on DF-based signal copy performance. IEEE Transactions on Signal Processing, 1995, 43, 2724-2732.	3.2	26
114	Throughput-Optimal Training for a Time-Varying Multi-Antenna Channel. IEEE Transactions on Wireless Communications, 2007, 6, 3364-3373.	6.1	26
115	MIMO environmental capacity sensitivity. , 0, , .		25
116	Pilot optimization for time-delay and channel estimation in OFDM systems. , 2011, , .		23
117	Matching Pursuit and Source Deflation for Sparse EEG/MEG Dipole Moment Estimation. IEEE Transactions on Biomedical Engineering, 2013, 60, 2280-2288.	2.5	23
118	Supervised and Semi-Supervised Learning for MIMO Blind Detection With Low-Resolution ADCs. IEEE Transactions on Wireless Communications, 2020, 19, 2427-2442.	6.1	23
119	Projection Versus Prewhitening for EEG Interference Suppression. IEEE Transactions on Biomedical Engineering, 2012, 59, 1329-1338.	2.5	22
120	Spectral Efficiency under Energy Constraint for Mixed-ADC MRC Massive MIMO. IEEE Signal Processing Letters, 2017, 24, 1847-1851.	2.1	22
121	Massive MIMO Channel Estimation with 1-Bit Spatial Sigma-delta ADCs. , 2019, , .		22
122	On Ergodic Secrecy Rate for MISO Wiretap Broadcast Channels with Opportunistic Scheduling. IEEE Communications Letters, 2014, 18, 50-53.	2.5	21
123	Effective SNR for Space-Time Modulation Over a Time-Varying Rician Channel. IEEE Transactions on Communications, 2004, 52, 17-23.	4.9	20
124	Performance of Space-Time Modulation for a Generalized Time-Varying Rician Channel Model. IEEE Transactions on Wireless Communications, 2004, 3, 1003-1012.	6.1	20
125	Unified Framework for the Synchronization of Flexible Multicarrier Communication Signals. IEEE Transactions on Signal Processing, 2013, 61, 828-842.	3.2	20
126	Transmitter Optimization for Per-Antenna Power Constrained Multi-Antenna Downlinks: A Newline An SLNR Maximization Methodology. IEEE Transactions on Signal Processing, 2016, 64, 2712-2725.	3.2	20

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127	Relaxed Biquadratic Optimization for Joint Filter-Signal Design in Signal-Dependent STAP. IEEE Transactions on Signal Processing, 2018, 66, 1300-1315.	3.2	20
128	Methods for blind equalization and resolution of overlapping echoes of unknown shape. IEEE Transactions on Signal Processing, 1999, 47, 1245-1254.	3.2	19
129	Cooperative Power Scheduling for Wireless MIMO Networks. , 2007, , .		19
130	Adaptive Mobile Sensor Positioning for Multi-Static Target Tracking. IEEE Transactions on Aerospace and Electronic Systems, 2010, 46, 120-132.	2.6	19
131	Nonlinear Precoding for Multipair Relay Networks With One-Bit ADCs and DACs. IEEE Signal Processing Letters, 2018, 25, 303-307.	2.1	19
132	Generative-Adversarial-Network Enabled Signal Detection for Communication Systems With Unknown Channel Models. IEEE Journal on Selected Areas in Communications, 2021, 39, 47-60.	9.7	19
133	Linear and Deep Neural Network-Based Receivers for Massive MIMO Systems With One-Bit ADCs. IEEE Transactions on Wireless Communications, 2021, 20, 7333-7345.	6.1	19
134	Exploiting Randomized Continuous Wave in Secure Backscatter Communications. IEEE Internet of Things Journal, 2020, 7, 3389-3403.	5.5	18
135	EKG Biometric Recognition: Unlinkability, Irreversibility, and Security. IEEE Internet of Things Journal, 2021, 8, 487-500.	5.5	18
136	A subspace fitting method for identification of linear state-space models. IEEE Transactions on Automatic Control, 1995, 40, 311-316.	3.6	17
137	Algorithms for blind equalization with multiple antennas based on frequency domain subspaces. , 0, , .		17
138	Space-Time Power Schedule for Distributed MIMO Links Without Instantaneous Channel State Information at the Transmitting Nodes. IEEE Transactions on Signal Processing, 2008, 56, 686-701.	3.2	17
139	Competing for Secrecy in the MISO Interference Channel. IEEE Transactions on Signal Processing, 2013, 61, 170-181.	3.2	17
140	Estimation in Phase-Shift and Forward Wireless Sensor Networks. IEEE Transactions on Signal Processing, 2013, 61, 3840-3851.	3.2	17
141	Discrete Phase Shift Design for Practical Large Intelligent Surface Communication. , 2019, , .		17
142	An analysis of subspace fitting algorithms in the presence of sensor errors. , 0, , .		16
143	Dirty Paper Coding versus Linear GSVD-Based Precoding in MIMO Broadcast Channel with Confidential Messages. , 2011, , .		16
144	Secure space-time block coding via artificial noise alignment. , 2011, , .		16

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145	Robust algorithms for direction-finding in the presence of model errors. , 1990, , .		15
146	Some experiments with array data collected in actual urban and suburban environments. , 0, , .		15
147	Simultaneous channel estimation and decoding for diagonal space-time codes. , 0, , .		15
148	Efficient Dipole Parameter Estimation in EEG Systems With Near-ML Performance. IEEE Transactions on Biomedical Engineering, 2012, 59, 1339-1348.	2.5	15
149	Joint transmit design and node selection for one-way and two-way untrusted relay channels. , 2013, , .		15
150	Spectral Efficiency of One-Bit Sigma-Delta Massive MIMO. IEEE Journal on Selected Areas in Communications, 2020, 38, 2215-2226.	9.7	15
151	Intelligent Reflecting Surface Based Passive Information Transmission: A Symbol-Level Precoding Approach. IEEE Transactions on Vehicular Technology, 2021, 70, 6735-6749.	3.9	15
152	Alternate-Jamming-Aided Wireless Physical-Layer Surveillance: Protocol Design and Performance Analysis. IEEE Transactions on Information Forensics and Security, 2021, 16, 1989-2003.	4.5	15
153	An analysis of MUSIC and root-MUSIC in the presence of sensor perturbations. , 1989, , .		14
154	Detection and estimation using the third moment matrix. , 0, , .		14
155	Using least squares to improve blind signal copy performance. IEEE Signal Processing Letters, 1994, 1, 80-82.	2.1	14
156	A maximum a posteriori approach to beamforming in the presence of calibration errors. , 0, , .		14
157	Equilibrium Outcomes of Dynamic Games in MIMO Channels with Active Eavesdroppers. , 2010, , .		14
158	On one-bit quantized ZF precoding for the multiuser massive MIMO downlink. , 2016, , .		14
159	Rethinking Secure Precoding via Interference Exploitation: A Smart Eavesdropper Perspective. IEEE Transactions on Information Forensics and Security, 2021, 16, 585-600.	4.5	14
160	2-D parameter estimation using arrays with multidimensional invariance structure. , 1989, , .		13
161	Alternative algorithm for maximum likelihood DOA estimation and detection. IET Radar, Sonar & Navigation, 1994, 141, 293.	2.1	13
162	Bargaining and the MISO Interference Channel. Eurasip Journal on Advances in Signal Processing, 2009, 2009, .	1.0	13

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163	Applications of Array Signal Processing. Academic Press Library in Signal Processing, 2014, 3, 859-953.	0.8	13
164	A new approach for symbol frame synchronization and carrier frequency estimation in OFDM communications. , 1999, , .		12
165	Improving the topological resilience of mobile ad hoc networks. , 2009, , .		12
166	User selection in multiuser MIMO systems with secrecy considerations. , 2009, , .		12
167	Cooperation strategies for secrecy in MIMO relay networks with unknown eavesdropper CSI. , 2011, , .		12
168	How Much Training Is Needed in One-Bit Massive MIMO Systems at Low SNR?. , 2016, , .		12
169	Analysis of one-bit quantized ZF precoding for the multiuser massive MIMO downlink. , 2016, , .		12
170	Quadratic Semidefinite Programming for Waveform-Constrained Joint Filter-Signal Design in STAP. IEEE Transactions on Signal Processing, 2020, 68, 1744-1759.	3.2	12
171	Secrecy capacity of MISO Gaussian wiretap channel with a cooperative jammer. , 2011, , .		11
172	Power allocation method based on the channel statistics for combined positioning and communications OFDM systems. , 2013, , .		11
173	Reconsidering Linear Transmit Signal Processing in 1-Bit Quantized Multi-User MISO Systems. IEEE Transactions on Wireless Communications, 2019, 18, 254-267.	6.1	11
174	Optimized Transmission for Parameter Estimation in Wireless Sensor Networks. IEEE Transactions on Signal and Information Processing Over Networks, 2020, 6, 35-47.	1.6	11
175	Secure Symbol-Level Precoding in MU-MISO Wiretap Systems. IEEE Transactions on Information Forensics and Security, 2020, 15, 3359-3373.	4.5	11
176	Massive MIMO Channel Estimation With Low-Resolution Spatial Sigma-Delta ADCs. IEEE Access, 2021, 9, 109320-109334.	2.6	11
177	Fountain-Coding Aided Secure Transmission With Delay and Content Awareness. IEEE Transactions on Vehicular Technology, 2020, 69, 7992-7997.	3.9	11
178	Channel training design in full-duplex wiretap channels to enhance physical layer security. , 2017, , .		10
179	Massive MIMO downlink 1-bit precoding for frequency selective channels. , 2017, , .		10
180	Safeguarding 5G-and-Beyond Networks with Physical Layer Security. IEEE Wireless Communications, 2019, 26, 4-5.	6.6	10

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181	Near-Field Source Parameter Estimation Using A Spatial Wigner Distribution Approach. Proceedings of SPIE, 1988, 0975, 86.	0.8	9
182	Maximum SINR beamforming for correlated sources. , 0, , .		9
183	MIMO interference channel with confidential messages: Game theoretic beamforming designs. , 2010, , .		9
184	QoS-constrained robust beamforming in MISO wiretap channels with a helper. , 2011, , .		9
185	Secrecy analysis of unauthenticated amplify-and-forward relaying with antenna selection. , 2012, , .		9
186	Reduced Dimension Minimum BER PSK Precoding for Constrained Transmit Signals in Massive MIMO. , 2018, , .		9
187	A burst-form CSI estimation approach for FDD massive MIMO systems. Signal Processing, 2019, 162, 106-114.	2.1	9
188	Recursive blind symbol estimation of convolutionally coded cochannel signals. IEEE Transactions on Signal Processing, 2000, 48, 956-965.	3.2	8
189	Application of MUSIC to arrays with multiple invariances. , 0, , .		8
190	Experimental measurements of capacity for MIMO indoor wireless channels. , 0, , .		8
191	Rank minimization designs for underlay MIMO cognitive radio networks with completely unknown primary CSI. , 2012, , .		8
192	Energy efficient beamforming for secure communication in cognitive radio networks. , 2016, , .		8
193	DNN-based Detectors for Massive MIMO Systems with Low-Resolution ADCs. , 2021, , .		8
194	Analysis of the combined effects of finite samples and model errors on array processing performance. , 1993, , .		7
195	Fixed window constant modulus algorithms. , 1999, , .		7
196	Performance of MIMO spatial multiplexing algorithms using indoor channel measurements and models. Wireless Communications and Mobile Computing, 2004, 4, 739-754.	0.8	7
197	Downlink resource allocation for multi-user MIMO-OFDMA systems: The Kalai-Smorodinsky bargaining approach. , 2009, , .		7
198	Ensuring Secrecy in MIMO Wiretap Channels with Imperfect CSIT: A Beamforming Approach. , 2010, , .		7

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199	Interference-Aware Scheduling for Connectivity in MIMO Ad Hoc Multicast Networks. IEEE Transactions on Vehicular Technology, 2012, 61, 1762-1778.	3.9	7
200	Modified Waterfilling Algorithms for MIMO Spatial Multiplexing with Asymmetric CSI. IEEE Wireless Communications Letters, 2012, 1, 89-92.	3.2	7
201	Robust beamforming via FIR filtering for GNSS multipath mitigation. , 2013, , .		7
202	Limited Rate Feedback in a MIMO Wiretap Channel With a Cooperative Jammer. IEEE Transactions on Signal Processing, 2016, 64, 4695-4706.	3.2	7
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