

# Robert W Heath Jr

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

676  
papers

39,696  
citations

94  
h-index

186  
g-index

753  
ext. papers

50,697  
ext. citations

6  
avg, IF

8.22  
L-index

#	Paper	IF	Citations
676	Five disruptive technology directions for 5G. <i>IEEE Communications Magazine</i> , <b>2014</b> , 52, 74-80	9.1	2754
675	Spatially Sparse Precoding in Millimeter Wave MIMO Systems. <i>IEEE Transactions on Wireless Communications</i> , <b>2014</b> , 13, 1499-1513	9.6	1746
674	MIMO Precoding and Combining Solutions for Millimeter-Wave Systems. <i>IEEE Communications Magazine</i> , <b>2014</b> , 52, 122-131	9.1	1490
673	Channel Estimation and Hybrid Precoding for Millimeter Wave Cellular Systems. <i>IEEE Journal on Selected Topics in Signal Processing</i> , <b>2014</b> , 8, 831-846	7.5	1335
672	An Overview of Signal Processing Techniques for Millimeter Wave MIMO Systems. <i>IEEE Journal on Selected Topics in Signal Processing</i> , <b>2016</b> , 10, 436-453	7.5	1263
671	. <i>IEEE Transactions on Information Theory</i> , <b>2003</b> , 49, 2735-2747	2.8	868
670	An overview of limited feedback in wireless communication systems. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2008</b> , 26, 1341-1365	14.2	824
669	Coverage and Rate Analysis for Millimeter-Wave Cellular Networks. <i>IEEE Transactions on Wireless Communications</i> , <b>2015</b> , 14, 1100-1114	9.6	793
668	. <i>IEEE Transactions on Wireless Communications</i> , <b>2015</b> , 14, 6481-6494	9.6	663
667	Shifting the MIMO Paradigm. <i>IEEE Signal Processing Magazine</i> , <b>2007</b> , 24, 36-46	9.4	656
666	. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2016</b> , 34, 998-1009	14.2	563
665	Grassmannian frames with applications to coding and communication. <i>Applied and Computational Harmonic Analysis</i> , <b>2003</b> , 14, 257-275	3.1	533
664	Hybrid MIMO Architectures for Millimeter Wave Communications: Phase Shifters or Switches?. <i>IEEE Access</i> , <b>2016</b> , 4, 247-267	3.5	458
663	Limited feedback unitary precoding for spatial multiplexing systems. <i>IEEE Transactions on Information Theory</i> , <b>2005</b> , 51, 2967-2976	2.8	418
662	. <i>IEEE Transactions on Wireless Communications</i> , <b>2014</b> , 13, 5070-5083	9.6	407
661	Millimeter-Wave Vehicular Communication to Support Massive Automotive Sensing <b>2016</b> , 54, 160-167		398
660	Mimo for millimeter-wave wireless communications: beamforming, spatial multiplexing, or both? <b>2014</b> , 52, 110-121		379

659	Antenna selection for spatial multiplexing systems with linear receivers. <i>IEEE Communications Letters</i> , <b>2001</b> , 5, 142-144	3.8	360
658	60 GHz wireless communications: Emerging requirements and design recommendations. <i>IEEE Vehicular Technology Magazine</i> , <b>2007</b> , 2, 41-50	9.9	337
657	. <i>IEEE Transactions on Communications</i> , <b>2016</b> , 1-1	6.9	330
656	Low complexity user selection algorithms for multiuser MIMO systems with block diagonalization. <i>IEEE Transactions on Signal Processing</i> , <b>2006</b> , 54, 3658-3663	4.8	330
655	Modeling Heterogeneous Network Interference Using Poisson Point Processes. <i>IEEE Transactions on Signal Processing</i> , <b>2013</b> , 61, 4114-4126	4.8	326
654	What is the value of limited feedback for MIMO channels? <b>2004</b> , 42, 54-59		321
653	Networked MIMO with clustered linear precoding. <i>IEEE Transactions on Wireless Communications</i> , <b>2009</b> , 8, 1910-1921	9.6	320
652	Frequency Selective Hybrid Precoding for Limited Feedback Millimeter Wave Systems. <i>IEEE Transactions on Communications</i> , <b>2016</b> , 64, 1801-1818	6.9	294
651	Designing structured tight frames via an alternating projection method. <i>IEEE Transactions on Information Theory</i> , <b>2005</b> , 51, 188-209	2.8	279
650	Transmit selection in spatial multiplexing systems. <i>IEEE Communications Letters</i> , <b>2002</b> , 6, 491-493	3.8	274
649	. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2015</b> , 33, 1-13	14.2	265
648	Near Maximum-Likelihood Detector and Channel Estimator for Uplink Multiuser Massive MIMO Systems With One-Bit ADCs. <i>IEEE Transactions on Communications</i> , <b>2016</b> , 64, 2005-2018	6.9	252
647	Interference alignment via alternating minimization <b>2009</b> ,		251
646	Switching between diversity and multiplexing in MIMO systems. <i>IEEE Transactions on Communications</i> , <b>2005</b> , 53, 962-968	6.9	246
645	Capacity Analysis of One-Bit Quantized MIMO Systems With Transmitter Channel State Information. <i>IEEE Transactions on Signal Processing</i> , <b>2015</b> , 63, 5498-5512	4.8	241
644	Adaptive modulation and MIMO coding for broadband wireless data networks <b>2002</b> , 40, 108-115		231
643	Overcoming interference in spatial multiplexing MIMO cellular networks. <i>IEEE Wireless Communications</i> , <b>2007</b> , 14, 95-104	13.4	221
642	. <i>IEEE Transactions on Vehicular Technology</i> , <b>2018</b> , 67, 3012-3027	6.8	218

641	MIMO Relaying With Linear Processing for Multiuser Transmission in Fixed Relay Networks. <i>IEEE Transactions on Signal Processing</i> , <b>2008</b> , 56, 727-738	4.8	217
640	Coverage and capacity of millimeter-wave cellular networks <b>2014</b> , 52, 70-77		213
639	Dynamic Subarrays for Hybrid Precoding in Wideband mmWave MIMO Systems. <i>IEEE Transactions on Wireless Communications</i> , <b>2017</b> , 16, 2907-2920	9.6	200
638	. <i>IEEE Transactions on Information Theory</i> , <b>2013</b> , 59, 5213-5226	2.8	200
637	Multiuser MIMO in Distributed Antenna Systems With Out-of-Cell Interference. <i>IEEE Transactions on Signal Processing</i> , <b>2011</b> , 59, 4885-4899	4.8	196
636	Hybrid precoding for millimeter wave cellular systems with partial channel knowledge <b>2013</b> ,		195
635	Uplink Performance of Wideband Massive MIMO With One-Bit ADCs. <i>IEEE Transactions on Wireless Communications</i> , <b>2017</b> , 16, 87-100	9.6	194
634	Equal gain transmission in multiple-input multiple-output wireless systems. <i>IEEE Transactions on Communications</i> , <b>2003</b> , 51, 1102-1110	6.9	193
633	Channel Estimation for Hybrid Architecture-Based Wideband Millimeter Wave Systems. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2017</b> , 35, 1996-2009	14.2	190
632	Cooperative Algorithms for MIMO Interference Channels. <i>IEEE Transactions on Vehicular Technology</i> , <b>2011</b> , 60, 206-218	6.8	190
631	Effects of channel aging in massive MIMO systems. <i>Journal of Communications and Networks</i> , <b>2013</b> , 15, 338-351	4.1	189
630	. <i>IEEE Transactions on Signal Processing</i> , <b>2002</b> , 50, 2429-2441	4.8	181
629	The future of WiMAX: Multihop relaying with IEEE 802.16j <b>2009</b> , 47, 104-111		177
628	Antenna Subset Modulation for Secure Millimeter-Wave Wireless Communication. <i>IEEE Transactions on Communications</i> , <b>2013</b> , 61, 3231-3245	6.9	171
627	Channel Estimation in Broadband Millimeter Wave MIMO Systems With Few-Bit ADCs. <i>IEEE Transactions on Signal Processing</i> , <b>2018</b> , 66, 1141-1154	4.8	167
626	Design and Evaluation of a Reconfigurable Antenna Array for MIMO Systems. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2008</b> , 56, 869-881	4.9	162
625	Systematic Codebook Designs for Quantized Beamforming in Correlated MIMO Channels. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2007</b> , 25, 1091-1100	14.2	162
624	Relay Architectures for 3GPP LTE-Advanced. <i>Eurasip Journal on Wireless Communications and Networking</i> , <b>2009</b> , 2009,	3.2	159

623	Limited feedback unitary precoding for orthogonal space-time block codes. <i>IEEE Transactions on Signal Processing</i> , <b>2005</b> , 53, 64-73	4.8	153
622	On the existence of equiangular tight frames. <i>Linear Algebra and Its Applications</i> , <b>2007</b> , 426, 619-635	0.9	152
621	Channel estimation in millimeter wave MIMO systems with one-bit quantization <b>2014</b> ,		150
620	60 GHz Wireless: Up Close and Personal. <i>IEEE Microwave Magazine</i> , <b>2010</b> , 11, 44-50	1.2	145
619	Blind Channel Estimation for MIMO-OFDM Systems. <i>IEEE Transactions on Vehicular Technology</i> , <b>2007</b> , 56, 670-685	6.8	143
618	Simplified Spatial Correlation Models for Clustered MIMO Channels With Different Array Configurations. <i>IEEE Transactions on Vehicular Technology</i> , <b>2007</b> , 56, 1924-1934	6.8	143
617	Compressed sensing based multi-user millimeter wave systems: How many measurements are needed? <b>2015</b> ,		141
616	. <i>IEEE Transactions on Vehicular Technology</i> , <b>2009</b> , 58, 152-164	6.8	140
615	Multimode antenna selection for spatial multiplexing systems with linear receivers. <i>IEEE Transactions on Signal Processing</i> , <b>2005</b> , 53, 3042-3056	4.8	138
614	Is the PHY layer dead? <b>2011</b> , 49, 159-165		134
613	Exploiting input cyclostationarity for blind channel identification in OFDM systems. <i>IEEE Transactions on Signal Processing</i> , <b>1999</b> , 47, 848-856	4.8	133
612	Low complexity precoding for large millimeter wave MIMO systems <b>2012</b> ,		131
611	Block diagonalization for multi-user MIMO with other-cell interference. <i>IEEE Transactions on Wireless Communications</i> , <b>2008</b> , 7, 2671-2681	9.6	131
610	A current perspective on distributed antenna systems for the downlink of cellular systems <b>2013</b> , 51, 161-167		127
609	Rethinking information theory for mobile ad hoc networks <b>2008</b> , 46, 94-101		127
608	MIMO Interference Alignment Over Correlated Channels With Imperfect CSI. <i>IEEE Transactions on Signal Processing</i> , <b>2011</b> , 59, 2783-2794	4.8	125
607	Adaptive Limited Feedback for Sum-Rate Maximizing Beamforming in Cooperative Multicell Systems. <i>IEEE Transactions on Signal Processing</i> , <b>2011</b> , 59, 800-811	4.8	125
606	Performance Analysis of Outdoor mmWave Ad Hoc Networks. <i>IEEE Transactions on Signal Processing</i> , <b>2016</b> , 64, 4065-4079	4.8	124

605	Frequency-Domain Compressive Channel Estimation for Frequency-Selective Hybrid Millimeter Wave MIMO Systems. <i>IEEE Transactions on Wireless Communications</i> , <b>2018</b> , 17, 2946-2960	9.6	123
604	Channel estimation and hybrid combining for mmWave: Phase shifters or switches? <b>2015</b> ,		122
603	The Impact of Beamwidth on Temporal Channel Variation in Vehicular Channels and Its Implications. <i>IEEE Transactions on Vehicular Technology</i> , <b>2017</b> , 66, 5014-5029	6.8	120
602	Hybrid Architectures With Few-Bit ADC Receivers: Achievable Rates and Energy-Rate Tradeoffs. <i>IEEE Transactions on Wireless Communications</i> , <b>2017</b> , 16, 2274-2287	9.6	120
601	Interference Alignment with Analog Channel State Feedback. <i>IEEE Transactions on Wireless Communications</i> , <b>2012</b> , 11, 626-636	9.6	120
600	Multuser diversity for MIMO wireless systems with linear receivers <b>2001</b> ,		119
599	Coordinated beamforming with limited feedback in the MIMO broadcast channel. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2008</b> , 26, 1505-1515	14.2	117
598	The practical challenges of interference alignment. <i>IEEE Wireless Communications</i> , <b>2013</b> , 20, 35-42	13.4	116
597	Device-to-Device Millimeter Wave Communications: Interference, Coverage, Rate, and Finite Topologies. <i>IEEE Transactions on Wireless Communications</i> , <b>2016</b> , 15, 6175-6188	9.6	112
596	Millimeter Wave Vehicular Communications: A Survey. <i>Foundations and Trends in Networking</i> , <b>2016</b> , 10, 1-113		111
595	Nonregenerative MIMO Relaying With Optimal Transmit Antenna Selection. <i>IEEE Signal Processing Letters</i> , <b>2008</b> , 15, 421-424	3.2	111
594	Low Complexity Hybrid Precoding Strategies for Millimeter Wave Communication Systems. <i>IEEE Transactions on Wireless Communications</i> , <b>2016</b> , 15, 8380-8393	9.6	107
593	. <i>IEEE Transactions on Information Theory</i> , <b>2011</b> , 57, 4219-4234	2.8	104
592	Limited feedback diversity techniques for correlated channels. <i>IEEE Transactions on Vehicular Technology</i> , <b>2006</b> , 55, 718-722	6.8	104
591	Multimode precoding for MIMO wireless systems. <i>IEEE Transactions on Signal Processing</i> , <b>2005</b> , 53, 3674-3687	4.8	104
590	Secure Communications in Millimeter Wave Ad Hoc Networks. <i>IEEE Transactions on Wireless Communications</i> , <b>2017</b> , 16, 3205-3217	9.6	102
589	. <i>IEEE Transactions on Wireless Communications</i> , <b>2009</b> , 8, 4264-4275	9.6	102
588	. <i>IEEE Transactions on Wireless Communications</i> , <b>2018</b> , 17, 1038-1052	9.6	101

587	Opportunistic feedback for downlink multiuser diversity. <i>IEEE Communications Letters</i> , <b>2005</b> , 9, 948-950	3.8	101
586	. <i>IEEE Transactions on Signal Processing</i> , <b>2002</b> , 50, 96-109	4.8	101
585	Beam tracking for mobile millimeter wave communication systems <b>2016</b> ,		97
584	Constructing Packings in Grassmannian Manifolds via Alternating Projection. <i>Experimental Mathematics</i> , <b>2008</b> , 17, 9-35	0.5	96
583	Space Division Multiple Access With a Sum Feedback Rate Constraint. <i>IEEE Transactions on Signal Processing</i> , <b>2007</b> , 55, 3879-3891	4.8	96
582	Spatial Interference Cancellation for Multiantenna Mobile Ad Hoc Networks. <i>IEEE Transactions on Information Theory</i> , <b>2012</b> , 58, 1660-1676	2.8	92
581	Interpolation based transmit beamforming for MIMO-OFDM with limited feedback. <i>IEEE Transactions on Signal Processing</i> , <b>2005</b> , 53, 4125-4135	4.8	92
580	Maximum Sum-Rate Interference Alignment Algorithms for MIMO Channels <b>2010</b> ,		88
579	Millimeter-wave gigabit broadband evolution toward 5G: fixed access and backhaul <b>2016</b> , 54, 138-144		88
578	Where, When, and How mmWave is Used in 5G and Beyond. <i>IEICE Transactions on Electronics</i> , <b>2017</b> , E100.C, 790-808	0.4	87
577	. <i>IEEE Transactions on Vehicular Technology</i> , <b>2018</b> , 67, 4042-4058	6.8	85
576	Millimeter Wave Energy Harvesting. <i>IEEE Transactions on Wireless Communications</i> , <b>2016</b> , 15, 6048-6062	9.6	85
575	. <i>IEEE Journal on Selected Topics in Signal Processing</i> , <b>2018</b> , 12, 353-367	7.5	84
574	Coverage and capacity in mmWave cellular systems <b>2012</b> ,		84
573	Multi-Mode Transmission for the MIMO Broadcast Channel with Imperfect Channel State Information. <i>IEEE Transactions on Communications</i> , <b>2011</b> , 59, 803-814	6.9	83
572	Rate bounds on SSIM index of quantized images. <i>IEEE Transactions on Image Processing</i> , <b>2008</b> , 17, 1624-39.	7	83
571	Radar aided beam alignment in MmWave V2I communications supporting antenna diversity <b>2016</b> ,		83
570	Spectral Efficiency of Dynamic Coordinated Beamforming: A Stochastic Geometry Approach. <i>IEEE Transactions on Wireless Communications</i> , <b>2015</b> , 14, 230-241	9.6	82

569	Exploiting Spatial Channel Covariance for Hybrid Precoding in Massive MIMO Systems. <i>IEEE Transactions on Signal Processing</i> , <b>2017</b> , 65, 3818-3832	4.8	81
568	On the Overhead of Interference Alignment: Training, Feedback, and Cooperation. <i>IEEE Transactions on Wireless Communications</i> , <b>2012</b> , 11, 4192-4203	9.6	80
567	Performance analysis of maximum ratio combining with imperfect channel estimation in the presence of cochannel interferences. <i>IEEE Transactions on Wireless Communications</i> , <b>2009</b> , 8, 1080-1085	9.6	80
566	<b>2012</b> ,		79
565	Adaptation in Convolutionally Coded MIMO-OFDM Wireless Systems Through Supervised Learning and SNR Ordering. <i>IEEE Transactions on Vehicular Technology</i> , <b>2010</b> , 59, 114-126	6.8	79
564	Adaptive MIMO transmission techniques for broadband wireless communication systems [Topics in Wireless Communications]. <i>IEEE Communications Magazine</i> , <b>2010</b> , 48, 112-118	9.1	78
563	Hybrid MMSE Precoding and Combining Designs for mmWave Multiuser Systems. <i>IEEE Access</i> , <b>2017</b> , 5, 19167-19181	3.5	76
562	Transmit Selection Diversity for Unitary Precoded Multiuser Spatial Multiplexing Systems With Linear Receivers. <i>IEEE Transactions on Signal Processing</i> , <b>2007</b> , 55, 1159-1171	4.8	75
561	Channel Estimation for Orthogonal Time Frequency Space (OTFS) Massive MIMO. <i>IEEE Transactions on Signal Processing</i> , <b>2019</b> , 67, 4204-4217	4.8	74
560	Adaptive Bit Partitioning for Multicell Intercell Interference Nulling With Delayed Limited Feedback. <i>IEEE Transactions on Signal Processing</i> , <b>2011</b> , 59, 3824-3836	4.8	74
559	Interference Coordination: Random Clustering and Adaptive Limited Feedback. <i>IEEE Transactions on Signal Processing</i> , <b>2013</b> , 61, 1822-1834	4.8	73
558	Opportunistic Space-Division Multiple Access With Beam Selection. <i>IEEE Transactions on Communications</i> , <b>2007</b> , 55, 2371-2380	6.9	73
557	Benefit of pattern diversity via two-element array of circular patch antennas in indoor clustered MIMO channels. <i>IEEE Transactions on Communications</i> , <b>2006</b> , 54, 943-954	6.9	73
556	Multibeam for Joint Communication and Radar Sensing Using Steerable Analog Antenna Arrays. <i>IEEE Transactions on Vehicular Technology</i> , <b>2019</b> , 68, 671-685	6.8	73
555	Limited Feedback Beamforming Over Temporally-Correlated Channels. <i>IEEE Transactions on Signal Processing</i> , <b>2009</b> , 57, 1959-1975	4.8	72
554	. <i>IEEE Transactions on Vehicular Technology</i> , <b>2010</b> , 59, 4309-4321	6.8	71
553	Initial Beam Association in Millimeter Wave Cellular Systems: Analysis and Design Insights. <i>IEEE Transactions on Wireless Communications</i> , <b>2017</b> , 16, 2807-2821	9.6	70
552	High SNR capacity of millimeter wave MIMO systems with one-bit quantization <b>2014</b> ,		70



551	. <i>IEEE Transactions on Wireless Communications</i> , <b>2015</b> , 14, 3337-3351	9.6	69
550	Transmission Capacity of Ad-hoc Networks With Multiple Antennas Using Transmit Stream Adaptation and Interference Cancellation. <i>IEEE Transactions on Information Theory</i> , <b>2012</b> , 58, 780-792	2.8	68
549	. <i>IEEE Transactions on Communications</i> , <b>2016</b> , 64, 3981-3995	6.9	66
548	Design of linear equalizers optimized for the structural similarity index. <i>IEEE Transactions on Image Processing</i> , <b>2008</b> , 17, 857-72	8.7	66
547	Foundations of MIMO Communication <b>2018</b> ,		66
546	5G MIMO Data for Machine Learning: Application to Beam-Selection Using Deep Learning <b>2018</b> ,		66
545	The viability of distributed antennas for massive MIMO systems <b>2013</b> ,		65
544	Artificial-Noise-Aided Secure Multi-Antenna Transmission With Limited Feedback. <i>IEEE Transactions on Wireless Communications</i> , <b>2015</b> , 14, 2742-2754	9.6	65
543	Auxiliary Beam Pair Enabled AoD and AoA Estimation in Closed-Loop Large-Scale Millimeter-Wave MIMO Systems. <i>IEEE Transactions on Wireless Communications</i> , <b>2017</b> , 16, 4770-4785	9.6	64
542	One-Bit Sphere Decoding for Uplink Massive MIMO Systems With One-Bit ADCs. <i>IEEE Transactions on Wireless Communications</i> , <b>2018</b> , 17, 4509-4521	9.6	64
541	Grassmannian Differential Limited Feedback for Interference Alignment. <i>IEEE Transactions on Signal Processing</i> , <b>2012</b> , 60, 6481-6494	4.8	61
540	. <i>IEEE Transactions on Vehicular Technology</i> , <b>2007</b> , 56, 619-630	6.8	61
539	Opportunistic Feedback for Multiuser MIMO Systems With Linear Receivers. <i>IEEE Transactions on Communications</i> , <b>2007</b> , 55, 1020-1032	6.9	60
538	Simulation of MIMO channel capacity with antenna polarization diversity. <i>IEEE Transactions on Wireless Communications</i> , <b>2005</b> , 4, 1869-1873	9.6	60
537	Modeling the time-varying subjective quality of HTTP video streams with rate adaptations. <i>IEEE Transactions on Image Processing</i> , <b>2014</b> , 23, 2206-21	8.7	59
536	. <i>IEEE Transactions on Wireless Communications</i> , <b>2007</b> , 6, 2040-2045	9.6	59
535	Millimeter Wave Networked Wearables in Dense Indoor Environments. <i>IEEE Access</i> , <b>2016</b> , 4, 1205-1221	3.5	59
534	Blind identification of multichannel FIR blurs and perfect image restoration. <i>IEEE Transactions on Image Processing</i> , <b>2000</b> , 9, 1877-96	8.7	58

533	Block Diagonalized Vector Perturbation for Multiuser MIMO Systems. <i>IEEE Transactions on Wireless Communications</i> , <b>2008</b> , 7, 4051-4057	9.6	57
532	. <i>IEEE Transactions on Vehicular Technology</i> , <b>2017</b> , 66, 8139-8151	6.8	56
531	. <i>IEEE Transactions on Vehicular Technology</i> , <b>2018</b> , 67, 7086-7100	6.8	56
530	Interference in finite-sized highly dense millimeter wave networks <b>2015</b> ,		56
529	Investigating the IEEE 802.11ad Standard for Millimeter Wave Automotive Radar <b>2015</b> ,		56
528	Low complexity hybrid sparse precoding and combining in millimeter wave MIMO systems <b>2015</b> ,		56
527	Coordinated Beamforming for the Multiuser MIMO Broadcast Channel With Limited Feedforward. <i>IEEE Transactions on Signal Processing</i> , <b>2008</b> , 56, 6044-6056	4.8	56
526	Millimeter-Wave Communication with Out-of-Band Information <b>2017</b> , 55, 140-146		55
525	Cooperative Algorithms for MIMO Amplify-and-Forward Relay Networks. <i>IEEE Transactions on Signal Processing</i> , <b>2013</b> , 61, 1272-1287	4.8	55
524	. <i>IEEE Transactions on Communications</i> , <b>2009</b> , 57, 2633-2644	6.9	55
523	Spatial multiplexing in correlated fading via the virtual channel representation. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2003</b> , 21, 856-866	14.2	55
522	OFDM power loading using limited feedback. <i>IEEE Transactions on Vehicular Technology</i> , <b>2005</b> , 54, 1773-1780	6.8	55
521	Massive MIMO Combining with Switches. <i>IEEE Wireless Communications Letters</i> , <b>2016</b> , 5, 232-235	5.9	54
520	Optimization of Power Transfer Efficiency and Energy Efficiency for Wireless-Powered Systems With Massive MIMO. <i>IEEE Transactions on Wireless Communications</i> , <b>2018</b> , 17, 7159-7172	9.6	54
519	Multimode Transmission for Multiuser MIMO Systems With Block Diagonalization. <i>IEEE Transactions on Signal Processing</i> , <b>2008</b> , 56, 3294-3302	4.8	53
518	. <i>IEEE Transactions on Signal Processing</i> , <b>2006</b> , 54, 4730-4740	4.8	53
517	Delay-Constrained Video Transmission: Quality-Driven Resource Allocation and Scheduling. <i>IEEE Journal on Selected Topics in Signal Processing</i> , <b>2015</b> , 9, 60-75	7.5	52
516	<b>2018</b> ,		52

515	Channel Feedback Based on AoD-Adaptive Subspace Codebook in FDD Massive MIMO Systems. <i>IEEE Transactions on Communications</i> , <b>2018</b> , 66, 5235-5248	6.9	51
514	Using random shape theory to model blockage in random cellular networks <b>2012</b> ,		51
513	Beam design for beam switching based millimeter wave vehicle-to-infrastructure communications <b>2016</b> ,		51
512	Coverage analysis for millimeter wave cellular networks with blockage effects <b>2013</b> ,		50
511	Mode Switching for the Multi-Antenna Broadcast Channel Based on Delay and Channel Quantization. <i>Eurasip Journal on Advances in Signal Processing</i> , <b>2009</b> , 2009,	1.9	50
510	Channel Adaptive Quantization for Limited Feedback MIMO Beamforming Systems. <i>IEEE Transactions on Signal Processing</i> , <b>2006</b> , 54, 4717-4729	4.8	50
509	Multimode precoding in millimeter wave MIMO transmitters with multiple antenna sub-arrays <b>2013</b> ,		49
508	Performance Analysis of Quantized Beamforming MIMO Systems. <i>IEEE Transactions on Signal Processing</i> , <b>2006</b> , 54, 4753-4766	4.8	49
507	On quasi-orthogonal signatures for CDMA systems. <i>IEEE Transactions on Information Theory</i> , <b>2006</b> , 52, 1217-1226	2.8	48
506	Online Learning for Position-Aided Millimeter Wave Beam Training. <i>IEEE Access</i> , <b>2019</b> , 7, 30507-30526	3.5	47
505	. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , <b>2020</b> , 56, 1926-1941	3.7	47
504	A New Look at Physical Layer Security, Caching, and Wireless Energy Harvesting for Heterogeneous Ultra-Dense Networks <b>2018</b> , 56, 49-55		47
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315	Analysis of Urban Millimeter Wave Microcellular Networks <b>2016</b> ,		11
314	Swift-Link: A Compressive Beam Alignment Algorithm for Practical mmWave Radios. <i>IEEE Transactions on Signal Processing</i> , <b>2019</b> , 67, 1104-1119	4.8	11
313	Detection and Channel Equalization with Deep Learning for Low Resolution MIMO Systems <b>2018</b> ,		11
312	An attack on antenna subset modulation for millimeter wave communication <b>2015</b> ,		10
311	Impact of Correlation between Link Blockages on Macro-Diversity Gains in mmWave Networks <b>2018</b> ,		10
310	Limited feedback in multiple-antenna systems with one-bit quantization <b>2015</b> ,		10
309	Analysis of small cell partitioning in urban two-tier heterogeneous cellular networks <b>2014</b> ,		10
308	Multi-layer precoding for full-dimensional massive MIMO systems <b>2014</b> ,		10
307	Asymptotic coverage and rate in massive MIMO networks <b>2014</b> ,		10
306	Multiuser MIMO in distributed antenna systems with limited feedback <b>2012</b> ,		10
305	A dynamic system model of time-varying subjective quality of video streams over HTTP <b>2013</b> ,		10
304	Coordinated single-cell vs multi-cell transmission with limited-capacity backhaul <b>2010</b> ,		10
303	Single-user MIMO vs. Multiuser MIMO in the broadcast channel with CSIT constraints <b>2008</b> ,		10
302	Modelling realistic electromagnetic effects on MIMO system capacity. <i>Electronics Letters</i> , <b>2002</b> , 38, 1624-1626	1.1	10
301	Millimeter Wave Vehicular Communications: A Survey <b>2016</b> ,		10
300	MmWave Vehicular Beam Training with Situational Awareness by Machine Learning <b>2018</b> ,		10

299	Delay and Doppler processing for multi-target detection with IEEE 802.11 OFDM signaling <b>2017</b> ,		9
298	. <i>IEEE Transactions on Communications</i> , <b>2019</b> , 67, 1238-1253	6.9	9
297	Millimeter Wave: The Future of Commercial Wireless Systems <b>2016</b> ,		9
296	Gram Schmidt based greedy hybrid precoding for frequency selective millimeter wave MIMO systems <b>2016</b> ,		9
295	Joint CFO and channel estimation in millimeter wave systems with one-bit ADCs <b>2017</b> ,		9
294	Low resolution adaptive compressed sensing for mmWave MIMO receivers <b>2015</b> ,		9
293	On the spatial spectral efficiency of ITLinQ <b>2014</b> ,		9
292	Achievable throughput of multi-mode multiuser MIMO with imperfect CSI constraints <b>2009</b> ,		9
291	User admission in MIMO interference alignment networks <b>2011</b> ,		9
290	CSI feedback delay and degrees of freedom gain trade-off for the MISO interference channel <b>2012</b> ,		9
289	Coordinated Multi-cell MIMO Systems with Cellular Block Diagonalization. <i>Conference Record of the Asilomar Conference on Signals, Systems and Computers</i> , <b>2007</b> ,	0.3	9
288	Frame theoretic quantization for limited feedback MIMO beamforming systems		9
287	Physical Layer Security in Large-Scale Millimeter Wave Ad Hoc Networks <b>2016</b> ,		9
286	Joint Channel-Estimation/Decoding With Frequency-Selective Channels and Few-Bit ADCs. <i>IEEE Transactions on Signal Processing</i> , <b>2019</b> , 67, 899-914	4.8	8
285	Deep Learning Propagation Models over Irregular Terrain <b>2019</b> ,		8
284	Tensor-based Estimation of mmWave MIMO Channels with Carrier Frequency Offset <b>2019</b> ,		8
283	Spacetime Physical-Layer Network Coding. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2015</b> , 33, 323-336	14.2	8
282	Low Complexity Antenna Selection for Low Target Rate Users in Dense Cloud Radio Access Networks. <i>IEEE Transactions on Wireless Communications</i> , <b>2016</b> , 15, 6022-6032	9.6	8

281	A UAV-Based Traffic Monitoring System - Invited Paper <b>2018</b> ,		8
280	Securing mmWave Vehicular Communication Links with Multiple Transmit Antennas <b>2018</b> ,		8
279	Predictive Vector Quantization for Multicell Cooperation with Delayed Limited Feedback. <i>IEEE Transactions on Wireless Communications</i> , <b>2013</b> , 12, 2588-2597	9.6	8
278	MIMO Interference Alignment in Random Access Networks. <i>IEEE Transactions on Communications</i> , <b>2013</b> , 61, 5042-5055	6.9	8
277	Frequency Selective Hybrid Precoding in Millimeter Wave OFDMA Systems <b>2015</b> ,		8
276	Optimizing the Target Error Rate for Link Adaptation <b>2015</b> ,		8
275	Multi-cell coordination: A stochastic geometry approach <b>2012</b> ,		8
274	Extending the reach of GPS-assisted femtocell synchronization and localization through Tightly-Coupled Opportunistic Navigation <b>2011</b> ,		8
273	Grassmannian predictive coding for delayed limited feedback MIMO systems <b>2009</b> ,		8
272	Maximizing reliability in multi-hop wireless networks <b>2008</b> ,		8
271	Orthogonal Beamforming for SDMA Downlink with Limited Feedback <b>2007</b> ,		8
270	Optimizing MIMO Antenna Placement and Array Configurations for Multimedia Delivery in Aircraft. <i>IEEE Vehicular Technology Conference</i> , <b>2007</b> ,	0.1	8
269	Optimizing Coverage and Capacity in Cellular Networks using Machine Learning <b>2021</b> ,		8
268	Adaptive and Fast Combined Waveform-Beamforming Design for MMWave Automotive Joint Communication-Radar. <i>IEEE Journal on Selected Topics in Signal Processing</i> , <b>2021</b> , 15, 996-1012	7.5	8
267	On the Security of Millimeter Wave Vehicular Communication Systems Using Random Antenna Subsets <b>2016</b> ,		8
266	Frequency selective multiuser hybrid precoding for mmWave systems with imperfect channel knowledge <b>2016</b> ,		8
265	Fast Orthonormal Sparsifying Transforms Based on Householder Reflectors. <i>IEEE Transactions on Signal Processing</i> , <b>2016</b> , 64, 6589-6599	4.8	8
264	Analysis of Urban Two-Tier Heterogeneous Mobile Networks With Small Cell Partitioning. <i>IEEE Transactions on Wireless Communications</i> , <b>2016</b> , 15, 7044-7057	9.6	8



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262	Channel Estimation for Orthogonal Time Frequency Space (OTFS) Massive MIMO <b>2019,</b>		7
261	Spectral efficiency of massive MIMO systems with D2D underlay <b>2015,</b>		7
260	Ergodic Rate of Millimeter Wave Ad Hoc Networks. <i>IEEE Transactions on Wireless Communications,</i> <b>2018,</b> 17, 914-926	9.6	7
259	Position-Aided Compressive Channel Estimation and Tracking for Millimeter Wave Multi-User MIMO Air-to-Air Communications <b>2018,</b>		7
258	A New MIMO HF Data Link: Designing for High Data Rates and Backwards Compatibility <b>2013,</b>		7
257	Joint Communications and Sensing Using Two Steerable Analog Antenna Arrays <b>2017,</b>		7
256	Energy Coverage in Millimeter Wave Energy Harvesting Networks <b>2015,</b>		7
255	Multiuser MIMO in distributed antenna systems <b>2010,</b>		7
254	MIMO interference alignment in random access networks <b>2011,</b>		7
253	Frequency-Domain Channel Estimation and Equalization for Continuous-Phase Modulations With Superimposed Pilot Sequences. <i>IEEE Transactions on Vehicular Technology,</i> <b>2009,</b> 58, 4903-4908	6.8	7
252	Implementation of a real-time wireless interference alignment network <b>2012,</b>		7
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250	Spatial Interference Cancellation for Mobile Ad Hoc Networks: Perfect CSI <b>2008,</b>		7
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248	A Lattice-Theoretic Analysis of Vector Perturbation for Multi-User MIMO Systems <b>2008,</b>		7
247	Deep Learning-based Carrier Frequency Offset Estimation with One-Bit ADCs <b>2020,</b>		7
246	Accurate Channel Estimation for Frequency-Hopping Dual-Function Radar Communications <b>2020,</b>		7

245	Optimal User Loading in Massive MIMO Systems With Regularized Zero Forcing Precoding. <i>IEEE Wireless Communications Letters</i> , <b>2016</b> , 1-1	5.9	7
244	Analysis of Intelligent Vehicular Relaying in Urban 5G+ Millimeter-Wave Cellular Deployments <b>2019</b> ,		7
243	Enclosed mmWave Wearable Networks: Feasibility and Performance. <i>IEEE Transactions on Wireless Communications</i> , <b>2017</b> , 16, 2300-2313	9.6	6
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239	Distributed Real-Time Implementation of Interference Alignment with Analog Feedback. <i>IEEE Transactions on Vehicular Technology</i> , <b>2015</b> , 64, 3513-3525	6.8	6
238	Dynamic subarray architecture for wideband hybrid precoding in millimeter wave massive MIMO systems <b>2016</b> ,		6
237	Cascaded orthogonal space-time block codes for wireless multi-hop relay networks. <i>Eurasip Journal on Wireless Communications and Networking</i> , <b>2013</b> , 2013,	3.2	6
236	Impact of 3D base station antenna in random heterogeneous cellular networks <b>2014</b> ,		6
235	Artificial-noise-aided secure multi-antenna transmission in slow fading channels with limited feedback <b>2014</b> ,		6
234	Noniterative Coordinated Beamforming for Multiuser MIMO Systems With Limited Feedforward. <i>IEEE Signal Processing Letters</i> , <b>2011</b> , 18, 701-704	3.2	6
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231	Non-iterative multiuser MIMO coordinated beamforming with limited feedforward. <i>Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing</i> , <b>2008</b> ,	1.6	6
230	A Throughput-Based Adaptive MIMO-BICM Approach for Spatially-Correlated Channels <b>2006</b> ,		6
229	WLC06-4: A Lattice-Based MIMO Broadcast Precoder with Block Diagonalization for Multi-Stream Transmission. <i>IEEE Global Telecommunications Conference (GLOBECOM)</i> , <b>2006</b> ,		6
228	Physical concerns for cross-layer prototyping and wireless network experimentation <b>2007</b> ,		6

227	Quantized multi-mode precoding for spatial multiplexing MIMO-OFDM system		6
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225	On Wirelessly Powered Communications with Short Packets <b>2016</b> ,		6
224	MIMO Channel Estimation with Non-Ideal ADCs: Deep Learning Versus GAMP <b>2019</b> ,		6
223	JCR70: A Low-Complexity Millimeter-Wave Proof-of-Concept Platform for a Fully-Digital SIMO Joint Communication-Radar. <i>IEEE Open Journal of Vehicular Technology</i> , <b>2021</b> , 2, 218-234	5.3	6
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221	Side-information-aided Noncoherent Beam Alignment Design for Millimeter Wave Systems <b>2019</b> ,		5
220	. <i>IEEE Transactions on Multimedia</i> , <b>2015</b> , 17, 1802-1817	6.6	5
219	Deep Learning-Based Beam Alignment in Mmwave Vehicular Networks <b>2020</b> ,		5
218	A compressive sensing-maximum likelihood approach for off-grid wideband channel estimation at mmWave <b>2017</b> ,		5
217	Accurately Accounting for Random Blockage in Device-to-Device mmWave Networks <b>2017</b> ,		5
216	Joint channel-estimation/decoding with frequency-selective channels and few-bit ADCs <b>2017</b> ,		5
215	Analytical Characterization of ITLinQ: Channel Allocation for Device-to-Device Communication Networks. <i>IEEE Transactions on Wireless Communications</i> , <b>2016</b> , 15, 3603-3615	9.6	5
214	An Indoor Correlated Shadowing Model <b>2015</b> ,		5
213	Sum-rate of MIMO two-way relaying with imperfect CSI <b>2010</b> ,		5
212	Cognitive cooperation for the downlink of frequency reuse small cells <b>2010</b> ,		5
211	A Machine Learning Approach to Link Adaptation for SC-FDE System <b>2011</b> ,		5
210	Optimizing training and feedback for MIMO interference alignment <b>2011</b> ,		5

209	Rate Bounds on SSIM Index of Quantized Image DCT Coefficients <b>2008</b> ,		5
208	Multuser Limited Feedback for Wireless Multi-Antenna Communication <b>2007</b> ,		5
207	A Diversity Guarantee and SNR Performance for Unitary Limited Feedback MIMO Systems. <i>Eurasip Journal on Advances in Signal Processing</i> , <b>2007</b> , 2008,	1.9	5
206	Performance of the MIMO downlink channel with multi-mode adaptation and scheduling		5
205	Frame based multiple description image coding in the wavelet domain <b>2005</b> ,		5
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201	Performance Analysis of Beam Sweeping in Millimeter Wave Assuming Noise and Imperfect Antenna Patterns <b>2016</b> ,		5
200	Compressive Sensing for Blockage Detection in Vehicular Millimeter Wave Antenna Arrays <b>2016</b> ,		5
199	Capacity and scaling laws of dense mmWave and interference alignment ad hoc networks <b>2016</b> ,		5
198	Spatial Zadoff-Chu Modulation for Rapid Beam Alignment in mmWave Phased Arrays <b>2018</b> ,		5
197	Analysis of Blockage Sensing by Radars in Random Cellular Networks. <i>IEEE Signal Processing Letters</i> , <b>2018</b> , 25, 1620-1624	3.2	5
196	InFocus: A spatial coding technique to mitigate misfocus in near-field LoS beamforming. <i>IEEE Transactions on Wireless Communications</i> , <b>2021</b> , 1-1	9.6	5
195	<b>2016</b> , 54, 52-53		4
194	Analysis of beam sweep channel estimation in MmWave massive MIMO networks <b>2016</b> ,		4
193	Multiple-Antenna Transmission With Limited Feedback in Device-to-Device Networks. <i>IEEE Wireless Communications Letters</i> , <b>2016</b> , 5, 200-203	5.9	4
192	A Noncoherent Space-Time Code from Quantum Error Correction <b>2019</b> ,		4

191	Capacity Based Optimization of Compact Wideband Antennas <b>2019</b> ,		4
190	Making a Good Feature Article Submission [From the Editor]. <i>IEEE Signal Processing Magazine</i> , <b>2019</b> , 36, 3-4	9.4	4
189	A Phase-Reconstruction Technique for Low-Power Centimeter-Accurate Mobile Positioning. <i>IEEE Transactions on Signal Processing</i> , <b>2014</b> , 62, 2595-2610	4.8	4
188	Joint transmission mode and tilt adaptation in coordinated small-cell networks <b>2014</b> ,		4
187	Antenna Subset Modulation for secure millimeter-wave wireless communication <b>2013</b> ,		4
186	Energy Efficiency of Wireless Information and Power Transfer with Massive MIMO <b>2017</b> ,		4
185	Near maximum-likelihood detector with one-bit ADCs for multiuser massive MIMO systems <b>2015</b> ,		4
184	HF MIMO NVIS Measurements with Co-located Dipoles for Future Tactical Communications <b>2013</b> ,		4
183	Cognitive Cooperation for the Downlink of Frequency Reuse Small Cells. <i>Eurasip Journal on Advances in Signal Processing</i> , <b>2011</b> , 2011,	1.9	4
182	Two-way transmission capacity of wireless ad-hoc networks <b>2010</b> ,		4
181	Interference alignment with analog CSI feedback <b>2010</b> ,		4
180	Transmission Capacity of Two-Way Communication in Wireless Ad Hoc Networks <b>2009</b> ,		4
179	Joint Source-Channel Adaptation for Perceptually Optimized Scalable Video Transmission <b>2011</b> ,		4
178	<b>2009</b> ,		4
177	Transmission capacity of wireless ad-hoc networks with multiple antennas using multi-mode precoding and interference cancelation <b>2009</b> ,		4
176	Opportunistic Scheduling in Multiuser OFDM Systems with Clustered Feedback. <i>Wireless Personal Communications</i> , <b>2010</b> , 52, 209	1.9	4
175	Optimization methodology for designing 2-CPAs exploiting pattern diversity in clustered MIMO channels. <i>IEEE Transactions on Communications</i> , <b>2008</b> , 56, 1748-1759	6.9	4
174	Perceptual soft thresholding using the structural similarity index <b>2008</b> ,		4

173	Multiuser MIMO Downlink with Limited Feedback Using Transmit-Beam Matching <b>2008</b> ,		4
172	Relay Subset Selection in Wireless Networks Using Partial Decode-and-Forward Transmission. <i>IEEE Vehicular Technology Conference</i> , <b>2008</b> ,	0.1	4
171	Joint Interference Cancellation and Channel Shortening in Multiuser-MIMO Systems. <i>IEEE Transactions on Vehicular Technology</i> , <b>2007</b> , 56, 652-660	6.8	4
170	Jointly Optimized Multiuser Beamforming for the MIMO Broadcast Channel with Limited Feedback <b>2007</b> ,		4
169	Blind equalization in OFDM-based multi-antenna systems		4
168	Collision-Free UAV Navigation with a Monocular Camera Using Deep Reinforcement Learning <b>2020</b> ,		4
167	System and Design for Selective OFDM SWIPT Transmission. <i>IEEE Transactions on Green Communications and Networking</i> , <b>2021</b> , 5, 335-347	4	4
166	. <i>IEEE Transactions on Wireless Communications</i> , <b>2021</b> , 20, 3122-3136	9.6	4
165	Capacity and Coverage in Clustered LOS mmWave Ad Hoc Networks <b>2016</b> ,		4
164	Auxiliary Beam Pair Enabled AoD and AoA Estimation in mmWave FD-MIMO Systems <b>2016</b> ,		4
163	Capacity Based Analysis of a Wideband SIMO System in the Presence of Mutual Coupling <b>2019</b> ,		4
162	Towards Robustness: Machine Learning for MmWave V2X with Situational Awareness <b>2018</b> ,		4
161	Virtual Pulse Design for IEEE 802.11AD-Based Joint Communication-Radar <b>2018</b> ,		4
160	Augmented covariance estimation with a cyclic approach in DOA <b>2015</b> ,		3
159	Low-Rank MMWAVE MIMO Channel Estimation in One-Bit Receivers <b>2020</b> ,		3
158	LTE-advanced pro: part 2 [Guest Editorial] <b>2016</b> , 54, 12-13		3
157	Array thinning for antenna selection in millimeter wave MIMO systems <b>2016</b> ,		3
156	Introduction to the Special Issue on Signal Processing for Millimeter Wave Wireless Communications. <i>IEEE Journal on Selected Topics in Signal Processing</i> , <b>2016</b> , 10, 433-435	7.5	3

155	A Low Complexity ML Detection for Uplink Massive MIMO Systems with One-Bit ADCs <b>2018,</b>		3
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152	Interference alignment [Recent results and future directions <b>2013,</b>		3
151	A distributed algorithm using interference pricing for relay interference channels. <i>Eurasip Journal on Advances in Signal Processing</i> , <b>2013</b> , 2013,	1.9	3
150	Tracking abruptly changing channels in mmWave systems using overlaid data and training <b>2017,</b>		3
149	A frequency-domain approach to wideband channel estimation in millimeter wave systems <b>2017,</b>		3
148	Directional timing synchronization in wideband millimeter wave cellular systems with low-resolution ADCs <b>2017,</b>		3
147	Uplink Massive MIMO SIR Analysis: How Do Antennas Scale with Users? <b>2015,</b>		3
146	Performance evaluation of ITLinQ and FlashLinQ for overlaid device-to-device communication <b>2015</b>		3
145	Video quality-maximizing resource allocation and scheduling with statistical delay guarantees <b>2013,</b>		3
144	Interference alignment for the multiple-antenna amplify-and-forward relay interference channel <b>2011,</b>		3
143	Distributed link adaptation for multicast traffic in MIMO-OFDM systems. <i>Physical Communication</i> , <b>2011</b> , 4, 286-295	2.2	3
142	Link adaptation in MIMO-OFDM with non-uniform constellation selection over spatial streams through supervised learning <b>2010,</b>		3
141	Relay-Assisted User Scheduling in Wireless Networks With Hybrid ARQ. <i>IEEE Transactions on Vehicular Technology</i> , <b>2009</b> , 58, 5284-5288	6.8	3
140	Robust Beamforming and Power Control for Two-Tier Femtocell Networks <b>2011,</b>		3
139	Impact of Delayed Limited Feedback on the Sum-Rate of Intercell Interference Nulling <b>2011,</b>		3
138	Interference leakage minimization for convolutive MIMO interference channels <b>2012,</b>		3

137	Linear network coordinated beamforming for cell-boundary users <b>2009</b> ,		3
136	End-to-End Joint Antenna Selection Strategy and Distributed Compress and Forward Strategy for Relay Channels. <i>Eurasip Journal on Wireless Communications and Networking</i> , <b>2009</b> , 2009,	3.2	3
135	Impact of Mutual Coupling on Adaptive Switching Between MIMO Transmission Strategies and Antenna Configurations. <i>Wireless Personal Communications</i> , <b>2010</b> , 52, 69	1.9	3
134	Spatial interference cancelation for mobile ad hoc networks: Imperfect CSI <b>2008</b> ,		3
133	Progressive refinement for high resolution limited feedback multiuser MIMO beamforming <b>2008</b> ,		3
132	Switching between antenna selection and spatial multiplexing in the nonregenerative MIMO relay channel <b>2008</b> ,		3
131	On the SNR and Diversity of Quantized Precoded MIMO Systems <b>2006</b> ,		3
130	Uplink SDMA with Limited Feedback: Throughput Scaling. <i>Eurasip Journal on Advances in Signal Processing</i> , <b>2007</b> , 2008,	1.9	3
129	Space-Time Water-Filling for Composite MIMO Fading Channels. <i>Eurasip Journal on Wireless Communications and Networking</i> , <b>2006</b> , 2006, 1	3.2	3
128	Pattern diversity with multi-mode circular patch antennas in clustered MIMO channels		3
127	A Low-Resolution ADC Proof-of-Concept Development for a Fully-Digital Millimeter-wave Joint Communication-Radar <b>2020</b> ,		3
126	<b>2016</b> , 54, 74-75		3
125	A Combined Waveform-Beamforming Design for Millimeter-Wave Joint Communication-Radar <b>2019</b> ,		3
124	Beamforming in Millimeter Wave Systems: Prototyping and Measurement Results <b>2018</b> ,		3
123	Low Resolution Millimeter Wave Radar: Bounds and Performance <b>2018</b> ,		3
122	SPATIAL CHANNEL COVARIANCE ESTIMATION FOR THE HYBRID ARCHITECTURE AT A BASE STATION: A TENSOR-DECOMPOSITION-BASED APPROACH <b>2018</b> ,		3
121	. <i>IEEE Transactions on Wireless Communications</i> , <b>2018</b> , 17, 3861-3876	9.6	3
120	Challenges and Opportunities of Future Rural Wireless Communications. <i>IEEE Communications Magazine</i> , <b>2021</b> , 59, 16-22	9.1	3



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118	Message Passing-Based Link Configuration in Short Range Millimeter Wave Systems. <i>IEEE Transactions on Communications</i> , <b>2020</b> , 68, 3465-3479	6.9	2
117	A Geometry-aided Message Passing Method for AoA-Based Short Range MIMO Channel Estimation <b>2019</b> ,		2
116	Cross-polarization RF precoding to mitigate mobile misorientation and polarization leakage <b>2014</b> ,		2
115	Fast Link Configuration for mmWave Multiuser MIMO Downlink Using Spatial AoD Angular Supports <b>2017</b> ,		2
114	Exploiting Common Sparsity for Frequency-Domain Wideband Channel Estimation at mmWave <b>2017</b> ,		2
113	A Stochastic Geometry Approach to Analyzing Cellular Networks with Semi-Static Clustering <b>2015</b> ,		2
112	Base station cluster patterns for semi-static multi-cell cooperation in irregular network topologies <b>2015</b> ,		2
111	FDD massive MIMO with analog csi feedback <b>2015</b> ,		2
110	Performance analysis of pair-wise dynamic multi-user joint transmission <b>2015</b> ,		2
109	Prioritized multimode precoding for joint minimization of source-channel video distortions <b>2012</b> ,		2
108	Pre- and post-FFT interference leakage minimization for MIMO OFDM networks <b>2012</b> ,		2
107	Coverage and area spectral efficiency in downlink random cellular networks with channel estimation error <b>2013</b> ,		2
106	Degrees of freedom of completely-connected multi-way interference networks <b>2013</b> ,		2
105	Multimode Transmission in Network MIMO Downlink with Incomplete CSI. <i>Eurasip Journal on Advances in Signal Processing</i> , <b>2011</b> , 2011,	1.9	2
104	Predictive limited feedback for cooperative transmission <b>2010</b> ,		2
103	Interference alignment with per-antenna power constraints <b>2011</b> ,		2
102	Computing the Receive Spatial Correlation for a Multi-Cluster MIMO Channel Using Different Array Configurations <b>2008</b> ,		2

101	Low-Complexity User and Antenna Selection for Multiuser MIMO Systems with Block Diagonalization <b>2007</b> ,		2
100	WLC11-4: Power Control for Cellular MIMO Systems. <i>IEEE Global Telecommunications Conference (GLOBECOM)</i> , <b>2006</b> ,		2
99	Downlink MIMO Block Diagonalization in the Presence of Other-Cell Interference <b>2007</b> ,		2
98	Quantization on the complex projective space		2
97	Towards mmWave V2X in 5G and Beyond to Support Automated Driving. <i>IEICE Transactions on Communications</i> , <b>2021</b> , E104.B, 587-603	0.5	2
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