

Risto Wichman

List of Publications by Year in descending order

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122
papers

5,675
citations

430874

18
h-index

149698

56
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123
all docs

123
docs citations

123
times ranked

3743
citing authors

#	ARTICLE	IF	CITATIONS
1	In-Band Full-Duplex Wireless: Challenges and Opportunities. IEEE Journal on Selected Areas in Communications, 2014, 32, 1637-1652.	14.0	1,720
2	Mitigation of Loopback Self-Interference in Full-Duplex MIMO Relays. IEEE Transactions on Signal Processing, 2011, 59, 5983-5993.	5.3	1,143
3	Hybrid Full-Duplex/Half-Duplex Relaying with Transmit Power Adaptation. IEEE Transactions on Wireless Communications, 2011, 10, 3074-3085.	9.2	552
4	Full-Duplex Transceiver System Calculations: Analysis of ADC and Linearity Challenges. IEEE Transactions on Wireless Communications, 2014, 13, 3821-3836.	9.2	281
5	Recent advances in antenna design and interference cancellation algorithms for in-band full duplex relays. , 2015, 53, 91-101.		232
6	Optimized gain control for single-frequency relaying with loop interference. IEEE Transactions on Wireless Communications, 2009, 8, 2801-2806.	9.2	173
7	On Number of Almost Blank Subframes in Heterogeneous Cellular Networks. IEEE Transactions on Wireless Communications, 2013, 12, 5061-5073.	9.2	85
8	Phase Noise Estimation in OFDM: Utilizing Its Associated Spectral Geometry. IEEE Transactions on Signal Processing, 2016, 64, 1999-2012.	5.3	85
9	Analog and digital self-interference cancellation in full-duplex MIMO-OFDM transceivers with limited resolution in A/D conversion. , 2012, , .		84
10	Beamforming Codebooks for Two Transmit Antenna Systems Based on Optimum Grassmannian Packings. IEEE Transactions on Information Theory, 2011, 57, 6591-6602.	2.4	78
11	Downlink Coverage and Rate Analysis of Low Earth Orbit Satellite Constellations Using Stochastic Geometry. IEEE Transactions on Communications, 2020, 68, 5120-5134.	7.8	76
12	Full-duplex self-backhauling for small-cell 5G networks. IEEE Wireless Communications, 2015, 22, 83-89.	9.0	70
13	Hybrid NOMA/OMA With Buffer-Aided Relay Selection in Cooperative Networks. IEEE Journal on Selected Topics in Signal Processing, 2019, 13, 524-537.	10.8	54
14	Optimal eigenbeamforming for suppressing self-interference in full-duplex MIMO relays. , 2011, , .		53
15	Modeling and efficient cancellation of nonlinear self-interference in MIMO full-duplex transceivers. , 2014, , .		51
16	Performance Analysis of OFDM with Wiener Phase Noise and Frequency Selective Fading Channel. IEEE Transactions on Communications, 2011, 59, 1321-1331.	7.8	47
17	Vision for Beyond 4G broadband radio systems. , 2011, , .		46
18	A Multipath Extraction-Based CSI Acquisition Method for FDD Cellular Networks With Massive Antenna Arrays. IEEE Transactions on Wireless Communications, 2016, 15, 2940-2953.	9.2	43

#	ARTICLE	IF	CITATIONS
19	Transmit power optimization for multiantenna decode-and-forward relays with loopback self-interference from full-duplex operation. , 2011, , .		37
20	Optimized In-Band Full-Duplex MIMO Relay Under Single-Stream Transmission. IEEE Transactions on Vehicular Technology, 2016, 65, 155-168.	6.3	34
21	Advanced self-interference cancellation and multiantenna techniques for full-duplex radios. , 2013, , .		32
22	Asymptotic analysis of full-duplex bidirectional MIMO link with transmitter noise. , 2013, , .		30
23	Adaptive Piecewise Linear Predistorters for Nonlinear Power Amplifiers With Memory. IEEE Transactions on Circuits and Systems I: Regular Papers, 2012, 59, 1519-1532.	5.4	25
24	SINR optimization in wideband full-duplex MIMO relays under limited dynamic range. , 2014, , .		25
25	Characterization of OFDM Radio Link Under PLL-Based Oscillator Phase Noise and Multipath Fading Channel. IEEE Transactions on Communications, 2012, 60, 1479-1485.	7.8	23
26	Large-system analysis of rate regions in bidirectional full-duplex MIMO link: Suppression versus cancellation. , 2013, , .		22
27	Integrating Broadcasting and NOMA in Full-Duplex Buffer-Aided Opportunistic Relay Networks. IEEE Transactions on Vehicular Technology, 2020, 69, 9157-9162.	6.3	21
28	Green cooperative communication using threshold-based relay selection protocols. , 2010, , .		19
29	Effect of oscillator phase noise and processing delay in full-duplex OFDM repeaters. , 2012, , .		19
30	Adaptive self-interference cancellation in wideband full-duplex decode-and-forward MIMO relays. , 2013, , .		19
31	Power Adaptation in Buffer-Aided Full-Duplex Relay Networks With Statistical CSI. IEEE Transactions on Vehicular Technology, 2018, 67, 7846-7850.	6.3	18
32	Receiver-side nonlinearities mitigation using an extended iterative decision-based technique. Signal Processing, 2011, 91, 2042-2056.	3.7	17
33	Optimal field measurement design for radio environment mapping. , 2013, , .		17
34	Constrained Phase Noise Estimation in OFDM Using Scattered Pilots Without Decision Feedback. IEEE Transactions on Signal Processing, 2017, 65, 2348-2362.	5.3	17
35	Tactical Communication Link Under Joint Jamming and Interception by Same-Frequency Simultaneous Transmit and Receive Radio. , 2018, , .		16
36	Analysis of Channel Non-Reciprocity Due to Transceiver and Antenna Coupling Mismatches in TDD Precoded Multi-User MIMO-OFDM Downlink. , 2014, , .		15

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37	Performance of Quantized Random Beamforming in Delay-Tolerant Machine-Type Communication. IEEE Transactions on Wireless Communications, 2016, 15, 5664-5680.	9.2	15
38	Wideband full-duplex MIMO relays with blind adaptive self-interference cancellation. Signal Processing, 2017, 130, 74-85.	3.7	15
39	Capacity of Generalized UTRA FDD Closed-Loop Transmit Diversity Modes. Wireless Personal Communications, 2010, 54, 467-484.	2.7	14
40	Low-Complexity Channel Prediction Using Approximated Recursive DCT. IEEE Transactions on Circuits and Systems I: Regular Papers, 2011, 58, 2520-2530.	5.4	14
41	Selective multi-hop relaying for ultra-reliable communication in a factory environment. , 2016, , .		14
42	Relay Selection for Buffer-Aided Non-Orthogonal Multiple Access Networks. , 2017, , .		14
43	Location-aware 5G communications and Doppler compensation for high-speed train networks. , 2017, , .		13
44	Military Full-Duplex Radio Shield for Protection Against Adversary Receivers. , 2019, , .		13
45	Transferring the Full-Duplex Radio Technology from Wireless Networking to Defense and Security. , 2018, , .		11
46	Theoretical and Simulation-based Analysis of Terrestrial Interference to LEO Satellite Uplinks. , 2020, , .		11
47	Precoder partitioning in closed-loop MIMO systems. IEEE Transactions on Wireless Communications, 2009, 8, 3910-3914.	9.2	10
48	Autocorrelation-based adaptation rule for feedback equalization in wideband full-duplex amplify-and-forward MIMO relays. , 2013, , .		10
49	On achievable rate regions at large-system limit in full-duplex wireless local access. , 2013, , .		10
50	Subspace-constrained SINR optimization in MIMO full-duplex relays under limited dynamic range. , 2015, , .		10
51	Generalized Self-Interference Model for Full-Duplex Multicarrier Transceivers. IEEE Transactions on Communications, 2019, 67, 4995-5007.	7.8	10
52	A Distributed Resource Allocation Scheme for Self-Backhauled Full-Duplex Small Cell Networks. IEEE Transactions on Vehicular Technology, 2021, 70, 1461-1473.	6.3	10
53	A practical method for combining multivariate data in radio environment mapping. , 2013, , .		9
54	BEP analysis of OSTBC-OFDM systems with broadband pa and imperfect memory compensation. IEEE Communications Letters, 2007, 11, 940-942.	4.1	8

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55	Interference cancellation architecture for full-duplex system with GFDM signaling. , 2016, , .		8
56	Transmit Diversity in the WCDMA System. International Journal of Wireless Information Networks, 1999, 6, 171-180.	2.7	7
57	Capacities of Physical Layer Scheduling Strategies on a Shared Link. Wireless Personal Communications, 2006, 39, 115-134.	2.7	7
58	On the Solution of Scatter Density in Geometry-Based Channel Models. IEEE Transactions on Wireless Communications, 2007, 6, 1054-1062.	9.2	7
59	Hypoexponential Powerâ€™Delay Profile and Performance of Multihop OFDM Relay Links. IEEE Transactions on Wireless Communications, 2010, 9, 3878-3888.	9.2	7
60	Bit Loading Using Imperfect CSIT for Prediction-Based Resource Allocation in Mobile OFDMA. IEEE Transactions on Vehicular Technology, 2011, 60, 4082-4088.	6.3	7
61	On Performance Loss of Some CoMP Techniques Under Channel Power Imbalance and Limited Feedback. IEEE Transactions on Wireless Communications, 2015, 14, 4469-4481.	9.2	7
62	Predistortion for power amplifier linearization in full-duplex transceivers without extra RF chain. , 2017, , .		7
63	Distributed Jacobi eigen-beamforming for closed-loop MIMO systems. IEEE Communications Letters, 2006, 10, 825-827.	4.1	6
64	One-Bit CSI Feedback Selection Schemes for Energy-Efficient Multiuser and Multirelay Systems. IEEE Transactions on Wireless Communications, 2013, 12, 1149-1161.	9.2	6
65	Bandit-Based Relay Selection in Cooperative Networks Over Unknown Stationary Channels. , 2020, , .		6
66	Data-aided CFO estimators based on the averaged cyclic autocorrelation. Signal Processing, 2013, 93, 217-229.	3.7	5
67	Uplink CFO compensation for FBMC multiple access and OFDMA in a high mobility scenario. Physical Communication, 2014, 11, 56-66.	2.1	5
68	Enabling low-resolution ADC with high-order modulations for millimeter-wave systems. , 2016, , .		5
69	Compensation of ADC-induced distortion in broadband full-duplex transceivers. , 2017, , .		5
70	MMSE Filter Design for Full-duplex Filter-and-forward MIMO Relays under Limited Dynamic Range. Signal Processing, 2019, 156, 208-219.	3.7	5
71	LoLa4SOR: Leveraging Successive Transmissions for Low-Latency Buffer-Aided Opportunistic Relay Networks. IEEE Open Journal of the Communications Society, 2021, 2, 1041-1054.	6.9	5
72	Bandit-Based Power Control in Full-Duplex Cooperative Relay Networks With Strict-Sense Stationary and Non-Stationary Wireless Communication Channels. IEEE Open Journal of the Communications Society, 2022, 3, 366-378.	6.9	5

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73	Matched median detectors for multiple-access channels. <i>Signal Processing</i> , 1994, 38, 345-357.	3.7	4
74	Guest Editorial: In-Band Full-Duplex Wireless Communications and Networks. <i>IEEE Journal on Selected Areas in Communications</i> , 2014, 32, 1633-1636.	14.0	4
75	Power allocation for balancing the effects of channel estimation error and pilot overhead in full-duplex decode-and-forward relaying. , 2016, , .		4
76	A Distributed Mode Selection Scheme for Full-Duplex Device-to-Device Communication. <i>IEEE Transactions on Vehicular Technology</i> , 2019, 68, 10267-10271.	6.3	4
77	Spectral characteristics of a piecewise linear function in modeling power amplifier type nonlinearities. , 2010, , .		3
78	Accurate characterization and compensation of phase noise in OFDM receiver. , 2011, , .		3
79	Impact of Base Station Time Synchronization Mismatch on Almost Blank Subframes. <i>IEEE Communications Letters</i> , 2013, 17, 2092-2095.	4.1	3
80	Time domain bi-level downlink power control for cross-tier interference mitigation in HetNet. , 2013, , .		3
81	MIMO adaptive codebook for cross-polarized antenna arrays. , 2013, , .		3
82	Improved User-Specific Channel Estimation Using Geodesical Interpolation at the Transmitter. <i>IEEE Wireless Communications Letters</i> , 2015, 4, 165-168.	5.0	3
83	Bandit-Based Power Control in Full-Duplex Cooperative Relay Networks. , 2021, , .		3
84	Rate Optimization for 2D OFDM Relaying. <i>IEEE Communications Letters</i> , 2007, 11, 586-588.	4.1	2
85	Prediction based resource allocation in OFDMA. , 2011, , .		2
86	Average capacity of Rayleigh-fading OFDM link with wiener phase noise and frequency offset. , 2012, , .		2
87	Adaptive Channel Quantization on TDD Reciprocity Performance of Relative Antenna Calibration. , 2014, , .		2
88	Optimization of Secondary System Antenna Deployment in Shared Spectrum Access. <i>IEEE Transactions on Vehicular Technology</i> , 2016, 65, 3536-3546.	6.3	2
89	Planning and optimization of Cellular Networks Using Load-based Voronoi Algorithm. , 2018, , .		2
90	The Joint Impact of Fading Severity, Irregular Constellation, and Non-Gaussian Noise on Signal Space Diversity-Based Relaying Networks. <i>IEEE Access</i> , 2019, 7, 116162-116171.	4.2	2

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91	LI Cancellation and Power Allocation for Multipair FD Relay Systems With Massive Antenna Arrays. IEEE Wireless Communications Letters, 2019, 8, 1077-1081.	5.0	2
92	Low-Overhead Multi-Antenna-Enabled Random Access for Machine-Type Communications with Low Mobility. , 2019, , .		2
93	Adaptive Coded Modulation for Stabilization of Wireless Networked Control Systems over Binary Erasure Channels. , 2019, , .		2
94	Cellular Network Planning under Variable QoS Requirements Using Voronoi Algorithm. , 2020, , .		2
95	Empirical evaluation of OFDM waveforms for VLC in the presence of LED nonlinearities. , 2021, , .		2
96	Decentralized Limited-Feedback Multiuser MIMO for Temporally Correlated Channels. Journal of Electrical and Computer Engineering, 2010, 2010, 1-9.	0.9	1
97	Performance Analysis of Maximum SNR Scheduling with an Infrastructure Relay Link. Wireless Personal Communications, 2011, 56, 277-299.	2.7	1
98	Layer arrangement for single-user coordinated multi-point transmission. , 2012, , .		1
99	Subspace-based phase noise estimation in OFDM receivers. , 2015, , .		1
100	Higher Rank Interference Effect on Weak Beamforming or OSTBC Terminals. IEEE Transactions on Wireless Communications, 2015, 14, 4948-4957.	9.2	1
101	Geodesical Refinement of MIMO Limited Feedback. IEEE Transactions on Communications, 2016, 64, 1031-1041.	7.8	1
102	Robust filter design for full-duplex relay links under limited dynamic range. , 2017, , .		1
103	Physical Layer Techniques for 5G Wireless Security. , 0, , 237-274.		1
104	Time-Frequency Localization Measures for Packets of Orthogonally Multiplexed Signals. IEEE Transactions on Communications, 2019, 67, 6374-6385.	7.8	1
105	Power Allocation for ARQ Two-Hop Cooperative Networks for Ultra-Reliable Communication. , 2020, , .		1
106	Cellular Network Planning via Local Regularity Optimization. , 2021, , .		1
107	Data-Oriented View for Convolutional Coding With Adaptive Irregular Constellations. IEEE Communications Letters, 2021, 25, 1771-1775.	4.1	1
108	Throughput-Maximum Energy-Aware Rate Adaptation in W-NCSs over Quasi-Static Fading Channels. , 2020, , .		1

#	ARTICLE	IF	CITATIONS
109	Visible Light Communications: A Novel Indoor Network Planning Approach. , 2021, , .		1
110	The Effect of On-Off Scheduling to the Required Transmit Power in Systems with Fast Power Control. Wireless Personal Communications, 2005, 35, 337-352.	2.7	0
111	Inter-cell interference management in OFDMA TDD downlink using sounding/silencing protocol. , 2011, , .		0
112	Exclusion regions via handshaking protocol for inter-cell interference management. , 2011, , .		0
113	Constrained least-squares estimation and compensation of phase noise in OFDM radio link. , 2012, , .		0
114	Iterative Genetic and Greedy-Based Algorithms for Multi-Carrier Multi-User Scheduling in MIMO Systems with Successive Zero Forcing. , 2014, , .		0
115	A Novel Joint Precoder and Receiver Design with Imperfect CSI for Multi-User MIMO Downlink. , 2014, , .		0
116	Communication technology and system design (Foreword). Telecommunication Systems, 2014, 56, 323-325.	2.5	0
117	Coordinated optimization of EVD-based channel estimators in multi-cell massive MIMO networks. , 2015, , .		0
118	SINR Analysis of Non-Regenerative Multihop Links with Asymptotically Large Hop Count. , 2017, , .		0
119	A Convolutionally Encoded OSTBC System with SNR-Adaptive Constellations for Low-Latency and Low-Complexity Communications. , 2018, , .		0
120	Power Allocation for Multipair Massive MIMO FD Relay Systems with Low Resolution ADCs. , 2019, , .		0
121	Coded Transmission under Non-Cooperative Radar Interference. , 2020, , .		0
122	Adaptive Irregular Constellations for Full-Duplex Relaying With Residual Self-Interference. IEEE Transactions on Wireless Communications, 2021, 20, 7682-7693.	9.2	0