

Taneli Riihonen

List of Publications by Year in descending order

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113
papers

4,478
citations

411340

20
h-index

274796

44
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114
all docs

114
docs citations

114
times ranked

3217
citing authors

#	ARTICLE	IF	CITATIONS
1	Mitigation of Loopback Self-Interference in Full-Duplex MIMO Relays. IEEE Transactions on Signal Processing, 2011, 59, 5983-5993.	3.2	1,143
2	Hybrid Full-Duplex/Half-Duplex Relaying with Transmit Power Adaptation. IEEE Transactions on Wireless Communications, 2011, 10, 3074-3085.	6.1	552
3	Full-Duplex Transceiver System Calculations: Analysis of ADC and Linearity Challenges. IEEE Transactions on Wireless Communications, 2014, 13, 3821-3836.	6.1	281
4	Recent advances in antenna design and interference cancellation algorithms for in-band full duplex relays. , 2015, 53, 91-101.		232
5	Optimized gain control for single-frequency relaying with loop interference. IEEE Transactions on Wireless Communications, 2009, 8, 2801-2806.	6.1	173
6	Full-Duplex OFDM Radar With LTE and 5G NR Waveforms: Challenges, Solutions, and Measurements. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 4042-4054.	2.9	160
7	Analysis of Oscillator Phase-Noise Effects on Self-Interference Cancellation in Full-Duplex OFDM Radio Transceivers. IEEE Transactions on Wireless Communications, 2014, 13, 2977-2990.	6.1	138
8	Far-Field RF Wireless Power Transfer with Blind Adaptive Beamforming for Internet of Things Devices. IEEE Access, 2017, 5, 1743-1752.	2.6	91
9	Full Duplex Radio/Radar Technology: The Enabler for Advanced Joint Communication and Sensing. IEEE Wireless Communications, 2021, 28, 82-88.	6.6	89
10	Phase Noise Estimation in OFDM: Utilizing Its Associated Spectral Geometry. IEEE Transactions on Signal Processing, 2016, 64, 1999-2012.	3.2	85
11	Analog and digital self-interference cancellation in full-duplex MIMO-OFDM transceivers with limited resolution in A/D conversion. , 2012, , .		84
12	Downlink Coverage and Rate Analysis of Low Earth Orbit Satellite Constellations Using Stochastic Geometry. IEEE Transactions on Communications, 2020, 68, 5120-5134.	4.9	76
13	Inband Full-Duplex Radio Transceivers: A Paradigm Shift in Tactical Communications and Electronic Warfare?. , 2017, 55, 30-36.		68
14	Optimized Waveforms for 5G to 6G Communication With Sensing: Theory, Simulations and Experiments. IEEE Transactions on Wireless Communications, 2021, 20, 8301-8315.	6.1	65
15	Optimal eigenbeamforming for suppressing self-interference in full-duplex MIMO relays. , 2011, , .		53
16	Energy Detection in Full-Duplex Cognitive Radios under Residual Self-interference. , 2014, , .		48
17	Performance Analysis of OFDM with Wiener Phase Noise and Frequency Selective Fading Channel. IEEE Transactions on Communications, 2011, 59, 1321-1331.	4.9	47
18	Transmission Rate Optimization of Full-Duplex Relay Systems Powered by Wireless Energy Transfer. IEEE Transactions on Wireless Communications, 2017, 16, 6438-6450.	6.1	40

#	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.	3.9	34
21	Joint Multi-User Communication and MIMO Radar Through Full-Duplex Hybrid Beamforming. , 2021, , .		34
22	Advanced self-interference cancellation and multiantenna techniques for full-duplex radios. , 2013, , .		32
23	Asymptotic analysis of full-duplex bidirectional MIMO link with transmitter noise. , 2013, , .		30
24	Channel Estimation for Full-Duplex Relay Systems With Large-Scale Antenna Arrays. IEEE Transactions on Wireless Communications, 2016, 15, 6925-6938.	6.1	29
25	Multibeam Design for Joint Communication and Sensing in 5G New Radio Networks. , 2020, , .		28
26	Power System State Estimation Under Incomplete PMU Observabilityâ€™A Reduced-Order Approach. IEEE Journal on Selected Topics in Signal Processing, 2014, 8, 1051-1062.	7.3	26
27	SINR optimization in wideband full-duplex MIMO relays under limited dynamic range. , 2014, , .		25
28	Position-Aided Large-Scale MIMO Channel Estimation for High-Speed Railway Communication Systems. IEEE Transactions on Vehicular Technology, 2017, 66, 8964-8978.	3.9	25
29	Characterization of OFDM Radio Link Under PLL-Based Oscillator Phase Noise and Multipath Fading Channel. IEEE Transactions on Communications, 2012, 60, 1479-1485.	4.9	23
30	Large-system analysis of rate regions in bidirectional full-duplex MIMO link: Suppression versus cancellation. , 2013, , .		22
31	Joint OFDM Waveform Design for Communications and Sensing Convergence. , 2020, , .		22
32	Millimeter-Wave Mobile Sensing and Environment Mapping: Models, Algorithms and Validation. IEEE Transactions on Vehicular Technology, 2022, 71, 3900-3916.	3.9	22
33	On the prospects of full-duplex military radios. , 2017, , .		21
34	Radio-based Sensing and Indoor Mapping with Millimeter-Wave 5G NR Signals. , 2020, , .		21
35	Full-duplex amplify-and-forward relays with optimized transmission power under imperfect transceiver electronics. Eurasip Journal on Wireless Communications and Networking, 2017, 2017, , .	1.5	20
36	Frequency-Selective PAPR Reduction for OFDM. IEEE Transactions on Vehicular Technology, 2019, 68, 6167-6171.	3.9	20

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37	Global Minimax Approximations and Bounds for the Gaussian Q-Function by Sums of Exponentials. IEEE Transactions on Communications, 2020, 68, 6514-6524.	4.9	20
38	Green cooperative communication using threshold-based relay selection protocols. , 2010, , .		19
39	Effect of oscillator phase noise and processing delay in full-duplex OFDM repeaters. , 2012, , .		19
40	Adaptive self-interference cancellation in wideband full-duplex decode-and-forward MIMO relays. , 2013, , .		19
41	High-Accuracy Radio Sensing in 5G New Radio Networks: Prospects and Self-Interference Challenge. , 2019, , .		19
42	Self-interference cancelation through advanced sampling. IEEE Transactions on Signal Processing, 2018, 66, 1721-1733.	3.2	18
43	Nonhomogeneous Stochastic Geometry Analysis of Massive LEO Communication Constellations. IEEE Transactions on Communications, 2022, 70, 1848-1860.	4.9	18
44	Constrained Phase Noise Estimation in OFDM Using Scattered Pilots Without Decision Feedback. IEEE Transactions on Signal Processing, 2017, 65, 2348-2362.	3.2	17
45	Tactical Communication Link Under Joint Jamming and Interception by Same-Frequency Simultaneous Transmit and Receive Radio. , 2018, , .		16
46	Wideband full-duplex MIMO relays with blind adaptive self-interference cancellation. Signal Processing, 2017, 130, 74-85.	2.1	15
47	Transmit Power Optimization and Feasibility Analysis of Self-Backhauling Full-Duplex Radio Access Systems. IEEE Transactions on Wireless Communications, 2018, 17, 4219-4236.	6.1	15
48	Full-duplex radio technology for simultaneously detecting and preventing improvised explosive device activation. , 2018, , .		15
49	Stochastic Analysis of Satellite Broadband by Mega-Constellations with Inclined LEOs. , 2020, , .		14
50	Beamforming and Waveform Optimization for OFDM-based Joint Communications and Sensing at mm-Waves. , 2020, , .		14
51	Novel Iterative Clipping and Error Filtering Methods for Efficient PAPR Reduction in 5G and Beyond. IEEE Open Journal of the Communications Society, 2021, 2, 48-66.	4.4	13
52	Modeling and Analysis of LEO Mega-Constellations as Nonhomogeneous Poisson Point Processes. , 2021, , .		13
53	Waveforms and End-to-End Efficiency in RF Wireless Power Transfer Using Digital Radio Transmitter. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 1917-1931.	2.9	12
54	Transferring the Full-Duplex Radio Technology from Wireless Networking to Defense and Security. , 2018, , .		11

#	ARTICLE	IF	CITATIONS
55	Experimenting Joint Vehicular Communications and Sensing with Optimized 5G NR Waveform. , 2021, , .		11
56	Theoretical and Simulation-based Analysis of Terrestrial Interference to LEO Satellite Uplinks. , 2020, , .		11
57	Autocorrelation-based adaptation rule for feedback equalization in wideband full-duplex amplify-and-forward MIMO relays. , 2013, , .		10
58	On achievable rate regions at large-system limit in full-duplex wireless local access. , 2013, , .		10
59	Subspace-constrained SINR optimization in MIMO full-duplex relays under limited dynamic range. , 2015, , .		10
60	Generalized Self-Interference Model for Full-Duplex Multicarrier Transceivers. IEEE Transactions on Communications, 2019, 67, 4995-5007.	4.9	10
61	PAPR Reduction With Mixed-Numerology OFDM. IEEE Wireless Communications Letters, 2020, 9, 21-25.	3.2	10
62	SDR Prototype for Clipped and Fast-Convolution Filtered OFDM for 5G New Radio Uplink. IEEE Access, 2020, 8, 89946-89963.	2.6	10
63	Design of Phased Array Architectures for Full-Duplex Joint Communications and Sensing. , 2021, , , .		10
64	Energy-efficient distributed parameter estimation with partial updates. , 2010, , , .		9
65	Reduced-order synchrophasor-assisted state estimation for smart grids. , 2012, , , .		9
66	Joint Optimization of Communication and Traffic Efficiency in Vehicular Networks. IEEE Transactions on Vehicular Technology, 2019, 68, 2014-2018.	3.9	9
67	Achievable rate regions and self-interference channel estimation in hybrid full-duplex/half-duplex radio links. , 2015, , , .		8
68	Interference cancellation architecture for full-duplex system with GFDM signaling. , 2016, , , .		8
69	Improved Coefficients for the Karagiannidisâ€“Lioumpas Approximations and Bounds to the Gaussian Q -Function. IEEE Communications Letters, 2021, 25, 1468-1471.	2.5	8
70	Rangeâ€“Angle Processing for Target Detection in Joint MIMO-OFDM Communications and Sensing. , 2021, , , .		8
71	Monostatic FMCW Radar Architecture for Multifunction Full-Duplex Radios. , 2021, , , .		8
72	Hypoexponential Powerâ€“Delay Profile and Performance of Multihop OFDM Relay Links. IEEE Transactions on Wireless Communications, 2010, 9, 3878-3888.	6.1	7

#	ARTICLE	IF	CITATIONS
73	Achievable Transmission Rates and Self-Interference Channel Estimation in Hybrid Full-Duplex/Half-Duplex MIMO Relaying. , 2015, , .		7
74	Self-backhauling full-duplex access node with massive antenna arrays: Power allocation and achievable sum-rate. , 2016, , .		7
75	Predistortion for power amplifier linearization in full-duplex transceivers without extra RF chain. , 2017, , .		7
76	Experimenting Waveforms and Efficiency in RF Power Transfer. , 2019, , .		7
77	One-Bit CSI Feedback Selection Schemes for Energy-Efficient Multiuser and Multirelay Systems. IEEE Transactions on Wireless Communications, 2013, 12, 1149-1161.	6.1	6
78	Patch antenna design for full-duplex transceivers. , 2017, , .		6
79	On Buffering at the Relay Node in LTE-Advanced. , 2011, , .		5
80	Compensation of ADC-induced distortion in broadband full-duplex transceivers. , 2017, , .		5
81	Self-interference Cancellation Performance in Full-Duplex Jamming and Spectrum Monitoring. , 2021, , .		5
82	Performance analysis of Multi-Phase cooperative NOMA systems under passive eavesdropping. Signal Processing, 2021, 182, 107934.	2.1	5
83	Joint Impact of Input Power, PAPR, and Load Resistance on the Receiver Efficiency of Multisine Waveforms in RF Energy Harvesting. , 2021, , .		5
84	On the feasibility of full-duplex relaying powered by wireless energy transfer. , 2016, , .		4
85	Power allocation for balancing the effects of channel estimation error and pilot overhead in full-duplex decode-and-forward relaying. , 2016, , .		4
86	Inband full-duplex radio access system with self-backhauling: transmit power minimization under QoS requirements. , 2017, , .		4
87	Resource Optimization of Wireless Information and Energy Supply Control Systems With Massive MIMO. IEEE Communications Letters, 2017, 21, 2734-2737.	2.5	4
88	Novel Tone Reservation Method for DFT-s-OFDM. IEEE Wireless Communications Letters, 2021, 10, 2130-2134.	3.2	4
89	Quadrature-Based Exponential-Type Approximations for the Gaussian Q-Function. , 2021, , .		4
90	Generalized Karagiannidis-Lioupas Approximations and Bounds to the Gaussian Q -Function With Optimized Coefficients. IEEE Communications Letters, 2022, 26, 513-517.	2.5	4

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91	Accurate characterization and compensation of phase noise in OFDM receiver. , 2011, , .		3
92	Self-interference Modeling and Digital Cancellation Along with Full-Duplex Wireless System Analysis. , 2018, , .		3
93	Software-Defined Radio Prototype for Fast-Convolution-Based Filtered OFDM in 5G NR. , 2019, , .		3
94	Remez Exchange Algorithm for Approximating Powers of the Q-Function by Exponential Sums. , 2021, , .		3
95	Impact of Software-Defined Radio Transmitter on the Efficiency of RF Wireless Power Transfer. , 2020, , .		3
96	On the Prospects of In-band Full-Duplex Radios as Monostatic Continuous-Wave Noise Radars. , 2022, , .		3
97	A Covering Problem for Tori. Annals of Combinatorics, 2003, 7, 357-363.	0.3	2
98	Rate Optimization for 2D OFDM Relaying. IEEE Communications Letters, 2007, 11, 586-588.	2.5	2
99	Average capacity of Rayleigh-fading OFDM link with wiener phase noise and frequency offset. , 2012, , .		2
100	Digitally Assisted Analog Mitigation of Narrowband Periodic Interference. , 2019, , .		2
101	Design of RF Self-interference Cancellation Circuit for 100-W Full-Duplex Radio at 225â€“400 MHz. , 2021, , .		2
102	Deep Learning Based OFDM Physical-Layer Receiver for Extreme Mobility. , 2021, , .		2
103	Performance Analysis of Maximum SNR Scheduling with an Infrastructure Relay Link. Wireless Personal Communications, 2011, 56, 277-299.	1.8	1
104	Subspace-based phase noise estimation in OFDM receivers. , 2015, , .		1
105	Robust filter design for full-duplex relay links under limited dynamic range. , 2017, , .		1
106	Opportunistic Use of Successive Interference Cancellation in Reverse TDD HetNets. IEEE Wireless Communications Letters, 2020, 9, 619-623.	3.2	1
107	Link Performance of Multiple Reconfigurable Intelligent Surfaces and Direct Path in General Fading. , 2021, , .		1
108	Constrained least-squares estimation and compensation of phase noise in OFDM radio link. , 2012, , .		0

#	ARTICLE	IF	CITATIONS
109	Transmission rate performance of symmetric two-way full-duplex links at large antenna-array limit. , 2015, , .		0
110	Feasibility of self-backhauling in full-duplex radio access systems under QoS constraints. , 2017, , .		0
111	SINR Analysis of Non-Regenerative Multihop Links with Asymptotically Large Hop Count. , 2017, , .		0
112	Special Section on Full-Duplex Transceivers for Future Networks: Theory and Techniques. IEEE Open Journal of the Communications Society, 2021, 2, 2463-2468.	4.4	0
113	Nonlinear Power Amplifier Effects on a Full Duplex Spatial Modulation System. , 2021, , .		0