

Fredrik Rusek

List of Publications by Year in descending order

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48
papers

6,627
citations

430874

18
h-index

361022

35
g-index

48
all docs

48
docs citations

48
times ranked

4347
citing authors

#	ARTICLE	IF	CITATIONS
1	Scaling Up MIMO: Opportunities and Challenges with Very Large Arrays. IEEE Signal Processing Magazine, 2013, 30, 40-60.	5.6	4,222
2	Beyond Massive MIMO: The Potential of Data Transmission With Large Intelligent Surfaces. IEEE Transactions on Signal Processing, 2018, 66, 2746-2758.	5.3	534
3	Massive MIMO Performance Evaluation Based on Measured Propagation Data. IEEE Transactions on Wireless Communications, 2015, 14, 3899-3911.	9.2	444
4	Beyond Massive MIMO: The Potential of Positioning With Large Intelligent Surfaces. IEEE Transactions on Signal Processing, 2018, 66, 1761-1774.	5.3	213
5	Constrained Capacities for Faster-Than-Nyquist Signaling. IEEE Transactions on Information Theory, 2009, 55, 764-775.	2.4	181
6	Multistream Faster than Nyquist Signaling. IEEE Transactions on Communications, 2009, 57, 1329-1340.	7.8	170
7	Reciprocity Calibration for Massive MIMO: Proposal, Modeling, and Validation. IEEE Transactions on Wireless Communications, 2017, 16, 3042-3056.	9.2	124
8	Non Binary and Precoded Faster Than Nyquist Signaling. IEEE Transactions on Communications, 2008, 56, 808-817.	7.8	65
9	Massive MIMO Performance – TDD Versus FDD: What Do Measurements Say?. IEEE Transactions on Wireless Communications, 2018, 17, 2247-2261.	9.2	61
10	The Potential of Using Large Antenna Arrays on Intelligent Surfaces. , 2017, , .		57
11	Mutual Information of IID Complex Gaussian Signals on Block Rayleigh-Faded Channels. IEEE Transactions on Information Theory, 2012, 58, 331-340.	2.4	47
12	User Assignment with Distributed Large Intelligent Surface (LIS) Systems. , 2018, , .		42
13	Capacity Degradation with Modeling Hardware Impairment in Large Intelligent Surface. , 2018, , .		40
14	Decentralized Massive MIMO Processing Exploring Daisy-Chain Architecture and Recursive Algorithms. IEEE Transactions on Signal Processing, 2020, 68, 687-700.	5.3	39
15	A Simulation Framework for Multiple-Antenna Terminals in 5G Massive MIMO Systems. IEEE Access, 2017, 5, 26819-26831.	4.2	35
16	Channel Estimation Algorithms for OFDM-IDMA: Complexity and Performance. IEEE Transactions on Wireless Communications, 2012, 11, 1722-1732.	9.2	29
17	Optimal Transmit Filters for ISI Channels under Channel Shortening Detection. IEEE Transactions on Communications, 2013, 61, 4997-5005.	7.8	29
18	On the existence of the Mazo-limit on MIMO channels. IEEE Transactions on Wireless Communications, 2009, 8, 1118-1121.	9.2	23

#	ARTICLE	IF	CITATIONS
19	Spatial Separation of Closely-Located Users in Measured Massive MIMO Channels. IEEE Access, 2018, 6, 40253-40266.	4.2	22
20	Bounds on the Information Rate of Intersymbol Interference Channels Based on Mismatched Receivers. IEEE Transactions on Information Theory, 2012, 58, 1470-1482.	2.4	20
21	Fully Decentralized Approximate Zero-Forcing Precoding for Massive MIMO Systems. IEEE Wireless Communications Letters, 2019, 8, 773-776.	5.0	20
22	40 Years with the Ungerboeck Model: A Look at its Potentialities [Lecture Notes]. IEEE Signal Processing Magazine, 2015, 32, 156-161.	5.6	19
23	Fully Decentralized Massive MIMO Detection Based on Recursive Methods. , 2018, , .		19
24	Channel Shortening for Nonlinear Satellite Channels. IEEE Communications Letters, 2012, 16, 1929-1932.	4.1	15
25	On Reduced-Complexity Equalization Based on Ungerboeck and Forney Observation Models. IEEE Transactions on Signal Processing, 2008, 56, 3784-3789.	5.3	13
26	Optimal Two-Dimensional Lattices for Precoding of Linear Channels. IEEE Transactions on Wireless Communications, 2013, 12, 2104-2113.	9.2	13
27	A Generalized Zero-Forcing Precoder With Successive Dirty-Paper Coding in MISO Broadcast Channels. IEEE Transactions on Wireless Communications, 2017, 16, 3632-3645.	9.2	12
28	A Soft-Output MIMO Detector With Achievable Information Rate based Partial Marginalization. IEEE Transactions on Signal Processing, 2017, 65, 1622-1637.	5.3	11
29	Decentralized Massive MIMO Systems: Is There Anything to be Discussed?. , 2019, , .		11
30	Decentralized Equalizer Construction for Large Intelligent Surfaces. , 2019, , .		10
31	Trade-Offs in Decentralized Multi-Antenna Architectures: The WAX Decomposition. IEEE Transactions on Signal Processing, 2021, 69, 3627-3641.	5.3	9
32	Optimal Channel Shortener Design for Reduced- State Soft-Output Viterbi Equalizer in Single-Carrier Systems. IEEE Transactions on Communications, 2017, 65, 2568-2582.	7.8	8
33	The Effect of Signaling Rate on Information Rate for Single Carrier Linear Transmission Systems. IEEE Transactions on Communications, 2012, 60, 421-428.	7.8	7
34	Achievable Rate with Correlated Hardware Impairments in Large Intelligent Surfaces. , 2019, , .		7
35	Processing Distribution and Architecture Tradeoff for Large Intelligent Surface Implementation. , 2020, , .		7
36	Construction of Minimum Euclidean Distance MIMO Precoders and Their Lattice Classifications. IEEE Transactions on Signal Processing, 2012, 60, 4470-4474.	5.3	6

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37	Adaptive Rate-Maximizing Channel-Shortening for ISI Channels. IEEE Communications Letters, 2015, 19, 2090-2093.	4.1	6
38	An 0.8-mm^2 9.6-mW Iterative Decoder for Faster-Than-Nyquist and Orthogonal Signaling Multicarrier Systems in 65-nm CMOS. IEEE Journal of Solid-State Circuits, 2013, 48, 1680-1688.	5.4	5
39	Cram�r-Rao Lower Bounds for Positioning with Large Intelligent Surfaces using Quantized Amplitude and Phase. , 2019, , .		5
40	Modular Binary Tree Architecture for Distributed Large Intelligent Surface. , 2021, , .		5
41	Distributed and Scalable Uplink Processing for LIS: Algorithm, Architecture, and Design Trade-Offs. IEEE Transactions on Signal Processing, 2022, 70, 2639-2653.	5.3	5
42	Trade-Offs in Quasi-Decentralized Massive MIMO. , 2020, , .		4
43	Deployment Strategies for Large Intelligent Surfaces. IEEE Access, 2022, 10, 61753-61768.	4.2	4
44	Linear Precoder Design for MIMO-ISI Broadcasting Channels Under Channel Shortening Detection. IEEE Signal Processing Letters, 2016, 23, 1207-1211.	3.6	3
45	Simulation of Multiple-Antenna Terminal Performance in Massive MIMO Systems Based on Indoor Measurements. IEEE Transactions on Vehicular Technology, 2020, 69, 418-427.	6.3	2
46	The Impact of Terminal Mobility on the Performance of a Panel-Based Large Intelligent Surface. , 2020, , .		2
47	A Case Study on the Influence of Multiple Users on the Effective Channel in a Massive MIMO System. IEEE Wireless Communications Letters, 2020, 9, 389-393.	5.0	1
48	Cell-Free Massive MIMO: Exploiting The Wax Decomposition. , 2022, , .		1