Ahmed Alkhateeb

List of Publications by Citations

64 papers	7,717 citations	29 h-index	72 g-index
72 ext. papers	10,042 ext. citations	7 avg, IF	6.88 L-index

#	Paper	IF	Citations
64	MIMO Precoding and Combining Solutions for Millimeter-Wave Systems. *IEEE Communications Magazine*, **2014**, 52, 122-131	9.1	1490
63	Channel Estimation and Hybrid Precoding for Millimeter Wave Cellular Systems. *IEEE Journal on Selected Topics in Signal Processing*, **2014**, 8, 831-846	7.5	1335
62	. *IEEE Transactions on Wireless Communications*, **2015**, 14, 6481-6494	9.6	663
61	Wireless Communications and Applications Above 100 GHz: Opportunities and Challenges for 6G and Beyond. *IEEE Access*, **2019**, 7, 78729-78757	3.5	580
60	Hybrid MIMO Architectures for Millimeter Wave Communications: Phase Shifters or Switches?. *IEEE Access*, **2016**, 4, 247-267	3.5	458
59	. *IEEE Transactions on Communications*, **2016**, 1-1	6.9	330
58	Frequency Selective Hybrid Precoding for Limited Feedback Millimeter Wave Systems. *IEEE Transactions on Communications*, **2016**, 64, 1801-1818	6.9	294
57	Coverage and capacity of millimeter-wave cellular networks **2014**, 52, 70-77		213
56	Dynamic Subarrays for Hybrid Precoding in Wideband mmWave MIMO Systems. *IEEE Transactions on Wireless Communications*, **2017**, 16, 2907-2920	9.6	200
55	Hybrid precoding for millimeter wave cellular systems with partial channel knowledge **2013**,		195
54	Deep Learning Coordinated Beamforming for Highly-Mobile Millimeter Wave Systems. *IEEE Access*, **2018**, 6, 37328-37348	3.5	193
53	Channel Estimation for Hybrid Architecture-Based Wideband Millimeter Wave Systems. *IEEE Journal on Selected Areas in Communications*, **2017**, 35, 1996-2009	14.2	190
52	Compressed sensing based multi-user millimeter wave systems: How many measurements are needed? **2015**,		141
51	Channel estimation and hybrid combining for mmWave: Phase shifters or switches? **2015**,		122
50	Hybrid Architectures With Few-Bit ADC Receivers: Achievable Rates and Energy-Rate Tradeoffs. *IEEE Transactions on Wireless Communications*, **2017**, 16, 2274-2287	9.6	120
49	Enabling Large Intelligent Surfaces With Compressive Sensing and Deep Learning. *IEEE Access*, **2021** , 9, 44304-44321	3.5	110
48	Millimeter Wave Energy Harvesting. *IEEE Transactions on Wireless Communications*, **2016**, 15, 6048-6062	9.6	85

47	Initial Beam Association in Millimeter Wave Cellular Systems: Analysis and Design Insights. *IEEE Transactions on Wireless Communications*, **2017**, 16, 2807-2821	9.6	70
46	Initial beamforming for mmWave communications **2014**,		68
45	Deep Learning for mmWave Beam and Blockage Prediction Using Sub-6 GHz Channels. *IEEE Transactions on Communications*, **2020**, 68, 5504-5518	6.9	63
44	Massive MIMO Combining with Switches. *IEEE Wireless Communications Letters*, **2016**, 5, 232-235	5.9	54
43	Deep Learning for TDD and FDD Massive MIMO: Mapping Channels in Space and Frequency **2019**,		53
42	Deep Learning for Large Intelligent Surfaces in Millimeter Wave and Massive MIMO Systems **2019**,		53
41	Deep Reinforcement Learning for 5G Networks: Joint Beamforming, Power Control, and Interference Coordination. *IEEE Transactions on Communications*, **2020**, 68, 1581-1592	6.9	52
40	MACHINE LEARNING FOR RELIABLE MMWAVE SYSTEMS: BLOCKAGE PREDICTION AND PROACTIVE HANDOFF **2018**,		50
39	Deep Reinforcement Learning for Intelligent Reflecting Surfaces: Towards Standalone Operation **2020**,		42
38	Deep Learning for Direct Hybrid Precoding in Millimeter Wave Massive MIMO Systems **2019**,		39
37	Deep Transfer Learning-Based Downlink Channel Prediction for FDD Massive MIMO Systems. *IEEE Transactions on Communications*, **2020**, 68, 7485-7497	6.9	38
36	Achievable rates of multi-user millimeter wave systems with hybrid precoding **2015**,		35
35	Time-domain channel estimation for wideband millimeter wave systems with hybrid architecture **2017**,		29
34	Single-sided adaptive estimation of multi-path millimeter wave channels **2014**,		28
33	Gains of Restricted Secondary Licensing in Millimeter Wave Cellular Systems. *IEEE Journal on Selected Areas in Communications*, **2016**, 34, 2935-2950	14.2	27
32	Deep Learning for Massive MIMO With 1-Bit ADCs: When More Antennas Need Fewer Pilots. *IEEE Wireless Communications Letters*, **2020**, 9, 1273-1277	5.9	24
31	Multi-Layer Precoding: A Potential Solution for Full-Dimensional Massive MIMO Systems. *IEEE Transactions on Wireless Communications*, **2017**, 16, 5810-5824	9.6	23
30	Millimeter Wave Base Stations with Cameras: Vision-Aided Beam and Blockage Prediction **2020**,		23

29	Leveraging mmWave Imaging and Communications for Simultaneous Localization and Mapping **2019**,		21
28	Opportunistic beam training with hybrid analog/digital codebooks for mmWave systems **2015**,		20
27	3D Scene-Based Beam Selection for mmWave Communications. *IEEE Wireless Communications Letters*, **2020**, 9, 1850-1854	5.9	17
26	ViWi: A Deep Learning Dataset Framework for Vision-Aided Wireless Communications **2020**,		16
25	Generative Adversarial Estimation of Channel Covariance in Vehicular Millimeter Wave Systems **2018**,		16
24	Vision-Aided 6G Wireless Communications: Blockage Prediction and Proactive Handoff. *IEEE Transactions on Vehicular Technology*, **2021**, 1-1	6.8	11
23	Multi-layer precoding for full-dimensional massive MIMO systems **2014**,		10
22	Deep Learning based Antenna Selection and CSI Extrapolation in Massive MIMO Systems. *IEEE Transactions on Wireless Communications*, **2021**, 1-1	9.6	10
21	Gram Schmidt based greedy hybrid precoding for frequency selective millimeter wave MIMO systems **2016**,		9
20	Learning Beam Codebooks with Neural Networks: Towards Environment-Aware mmWave MIMO **2020**,		9
19	A tractable model for per user rate in multiuser millimeter wave cellular networks **2015**,		8
18	Energy Coverage in Millimeter Wave Energy Harvesting Networks **2015**,		7
17	Advanced Receiver Architectures for Millimeter-Wave Communications with Low-Resolution ADCs. *IEEE Communications Magazine*, **2020**, 58, 42-48	9.1	7
16	Deep Learning Predictive Band Switching in Wireless Networks. *IEEE Transactions on Wireless Communications*, **2021**, 20, 96-109	9.6	7
15	Design and Evaluation of Reconfigurable Intelligent Surfaces in Real-World Environment. *IEEE Open Journal of the Communications Society*, **2022**, 3, 462-474	6.7	7
14	Dynamic subarray architecture for wideband hybrid precoding in millimeter wave massive MIMO systems **2016**,		6
13	Deep Learning for THz Drones with Flying Intelligent Surfaces: Beam and Handoff Prediction **2021**,		6
12	Vision-Aided Dynamic Blockage Prediction for 6G Wireless Communication Networks **2021**,		5

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11	Deep Multimodal Learning: Merging Sensory Data for Massive MIMO Channel Prediction. *IEEE Journal on Selected Areas in Communications*, **2021**, 39, 1885-1898	14.2	5
10	Reinforcement Learning of Beam Codebooks in Millimeter Wave and Terahertz MIMO Systems. *IEEE Transactions on Communications*, **2021**, 1-1	6.9	4
9	Deep Learning Based Channel Covariance Matrix Estimation with User Location and Scene Images. *IEEE Transactions on Communications*, **2021**, 1-1	6.9	4
8	Millimeter Wave MIMO-Based Depth Maps for Wireless Virtual and Augmented Reality. *IEEE Access*, **2021**, 9, 48341-48363	3.5	4
7	Beamforming in Millimeter Wave Systems: Prototyping and Measurement Results **2018**,		3
6	Neural Networks Based Beam Codebooks: Learning mmWave Massive MIMO Beams that Adapt to Deployment and Hardware. *IEEE Transactions on Communications*, **2022**, 1-1	6.9	3
5	Deep Learning Based MIMO Channel Prediction: An Initial Proof of Concept Prototype **2020**,		2
4	Reinforcement Learning for Beam Pattern Design in Millimeter Wave and Massive MIMO Systems **2020**,		2
3	Restricted Secondary Licensing for mmWave Cellular: How Much Gain Can Be Obtained? **2016**,		2
2	Enabling Cell-Free Massive MIMO Systems with Wireless Millimeter Wave Fronthaul. *IEEE Transactions on Wireless Communications*, **2022**, 1-1	9.6	2
1	Blockage Prediction Using Wireless Signatures: Deep Learning Enables Real-World Demonstration. *IEEE Open Journal of the Communications Society*, **2022**, 3, 776-796	6.7	0