Hien Ngo

List of Publications by Year
in descending order

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142 papers	11,753 citations	109321 35 h-index	79698 73 g-index
145 all docs	145 docs citations	145 times ranked	4776 citing authors

#	Article	IF	Citations
1	Energy and Spectral Efficiency of Very Large Multiuser MIMO Systems. IEEE Transactions on Communications, 2013, 61, 1436-1449.	7.8	2,423
2	Cell-Free Massive MIMO Versus Small Cells. IEEE Transactions on Wireless Communications, 2017, 16, 1834-1850.	9.2	1,399
3	Towards 6G wireless communication networks: vision, enabling technologies, and new paradigm shifts. Science China Information Sciences, 2021, 64, 1.	4.3	858
4	On the Total Energy Efficiency of Cell-Free Massive MIMO. IEEE Transactions on Green Communications and Networking, 2018, 2, 25-39.	5.5	459
5	Multipair Full-Duplex Relaying With Massive Arrays and Linear Processing. IEEE Journal on Selected Areas in Communications, 2014, 32, 1721-1737.	14.0	354
6	Ubiquitous cell-free Massive MIMO communications. Eurasip Journal on Wireless Communications and Networking, 2019, 2019, .	2.4	317
7	EVD-based channel estimation in multicell multiuser MIMO systems with very large antenna arrays. , 2012, , .		314
8	The Multicell Multiuser MIMO Uplink with Very Large Antenna Arrays and a Finite-Dimensional Channel. IEEE Transactions on Communications, 2013, 61, 2350-2361.	7.8	272
9	Cell-Free Massive MIMO: Uniformly great service for everyone. , 2015, , .		237
10	Analysis of the pilot contamination effect in very large multicell multiuser MIMO systems for physical channel models. , 2011, , .		192
11	No Downlink Pilots Are Needed in TDD Massive MIMO. IEEE Transactions on Wireless Communications, 2017, 16, 2921-2935.	9.2	173
12	Energy Efficiency in Cell-Free Massive MIMO with Zero-Forcing Precoding Design. IEEE Communications Letters, 2017, 21, 1871-1874.	4.1	170
13	The Road to 6G: Ten Physical Layer Challenges for Communications Engineers. IEEE Communications Magazine, 2021, 59, 64-69.	6.1	143
14	Multi-pair amplify-and-forward relaying with very large antenna arrays. , 2013, , .		130
15	Uplink Performance Analysis of Multicell MU-SIMO Systems With ZF Receivers. IEEE Transactions on Vehicular Technology, 2013, 62, 4471-4483.	6.3	128
16	On the Uplink Maxâ€“Min SINR of Cell-Free Massive MIMO Systems. IEEE Transactions on Wireless Communications, 2019, 18, 2021-2036.	9.2	112
17	Massive MIMO With Optimal Power and Training Duration Allocation. IEEE Wireless Communications Letters, 2014, 3, 605-608.	5.0	110
18	Cell-Free Massive MIMO for Wireless Federated Learning. IEEE Transactions on Wireless Communications, 2020, 19, 6377-6392.	9.2	101

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19	Cell-Free Massive MIMO Networks: Optimal Power Control Against Active Eavesdropping. IEEE Transactions on Communications, 2018, 66, 4724-4737.	7.8	95
20	Pilot Power Control for Cell-Free Massive MIMO. IEEE Transactions on Vehicular Technology, 2018, 67, 11264-11268.	6.3	92
21	Cell-Free Massive MIMO with Limited Backhaul. , 2018, , .		84
22	On the SEP of Cooperative Diversity with Opportunistic Relaying. IEEE Communications Letters, 2008, 12, 727-729.	4.1	78
23	Secure 5G Wireless Communications: A Joint Relay Selection and Wireless Power Transfer Approach. IEEE Access, 2016, 4, 3349-3359.	4.2	74
24	Maxâ€“Min Rate of Cell-Free Massive MIMO Uplink With Optimal Uniform Quantization. IEEE Transactions on Communications, 2019, 67, 6796-6815.	7.8	74
25	Machine Learning-Based Channel Prediction in Massive MIMO With Channel Aging. IEEE Transactions on Wireless Communications, 2020, 19, 2960-2973.	9.2	74
26	Channel Estimation and Hybrid Combining for Wideband Terahertz Massive MIMO Systems. IEEE Journal on Selected Areas in Communications, 2021, 39, 1604-1620.	14.0	72
27	Energy Efficiency of the Cell-Free Massive MIMO Uplink With Optimal Uniform Quantization. IEEE Transactions on Green Communications and Networking, 2019, 3, 971-987.	5.5	69
28	Reconfigurable Intelligent Surface-Assisted Cell-Free Massive MIMO Systems Over Spatially-Correlated Channels. IEEE Transactions on Wireless Communications, 2022, 21, 5106-5128.	9.2	67
29	How Much Do Downlink Pilots Improve Cell-Free Massive MIMO?. , 2016, , .		63
30	Downlink Training in Cell-Free Massive MIMO: A Blessing in Disguise. IEEE Transactions on Wireless Communications, 2019, 18, 5153-5169.	9.2	63
31	Downlink Spectral Efficiency of Cell-Free Massive MIMO Systems With Multi-Antenna Users. IEEE Transactions on Communications, 2020, 68, 4803-4815.	7.8	63
32	Uplink power efficiency of multiuser MIMO with very large antenna arrays. , 2011, , .		61
33	On the Performance of Cell-Free Massive MIMO in Ricean Fading. , 2018, , .		58
34	Exploiting Deep Learning in Limited-Fronthaul Cell-Free Massive MIMO Uplink. IEEE Journal on Selected Areas in Communications, 2020, 38, 1678-1697.	14.0	52
35	Massive MIMO in Spectrum Sharing Networks: Achievable Rate and Power Efficiency. IEEE Systems Journal, 2017, 11, 20-31.	4.6	51
36	Amplify-and-Forward Two-Way Relay Networks: Error Exponents and Resource Allocation. IEEE Transactions on Communications, 2010, 58, 2653-2666.	7.8	48

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37	Analytic Framework for the Effective Rate of MISO Fading Channels. IEEE Transactions on Communications, 2012, 60, 1741-1751.	7.8	48
38	Secure Massive MIMO With the Artificial Noise-Aided Downlink Training. IEEE Journal on Selected Areas in Communications, 2018, 36, 802-816.	14.0	48
39	Large-Scale Multipair Two-Way Relay Networks with Distributed AF Beamforming. IEEE Communications Letters, 2013, 17, 1-4.	4.1	46
40	On the Performance of Cell-Free Massive MIMO Relying on Adaptive NOMA/OMA Mode-Switching. IEEE Transactions on Communications, 2020, 68, 792-810.	7.8	42
41	Massive MU-MIMO downlink TDD systems with linear precoding and downlink pilots. , 2013, , .		39
42	On the Performance of Multigroup Multicast Cell-Free Massive MIMO. IEEE Communications Letters, 2017, 21, 2642-2645.	4.1	39
43	Cell-Free Massive MIMO in the Short Blocklength Regime for URLLC. IEEE Transactions on Wireless Communications, 2021, 20, 5861-5871.	9.2	38
44	On the performance of cell-free massive MIMO with short-term power constraints. , 2016, , .		37
45	Secure full-duplex small-cell networks in a spectrum sharing environment. IEEE Access, 2016, 4, 3087-3099.	4.2	36
46	Uplink Spectral and Energy Efficiency of Cell-Free Massive MIMO With Optimal Uniform Quantization. IEEE Transactions on Communications, 2021, 69, 223-245.	7.8	36
47	On the Performance of Zero-Forcing Processing in Multi-Way Massive MIMO Relay Networks. IEEE Communications Letters, 2017, 21, 849-852.	4.1	34
48	Full-Duplex Cyber-Weapon With Massive Arrays. IEEE Transactions on Communications, 2017, 65, 5544-5558.	7.8	33
49	Energy efficiency optimization for cell-free massive MIMO. , 2017, , .		33
50	Performance analysis of large scale MU-MIMO with optimal linear receivers. , 2012, , .		32
51	Intelligent Reflecting Surfaces at Terahertz Bands: Channel Modeling and Analysis. , 2021, , .		32
52	Performance of Massive MIMO Uplink With Zero-Forcing Receivers Under Delayed Channels. IEEE Transactions on Vehicular Technology, 2017, 66, 3158-3169.	6.3	30
53	Mixed Quality of Service in Cell-Free Massive MIMO. IEEE Communications Letters, 2018, 22, 1494-1497.	4.1	30
54	Enhanced Max-Min SINR for Uplink Cell-Free Massive MIMO Systems. , 2018, , .		30

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55	Cell-Free Massive MIMO: Joint Maximum-Ratio and Zero-Forcing Precoder With Power Control. IEEE Transactions on Communications, 2021, 69, 3741-3756.	7.8	30
56	CELL-FREE MASSIVE MIMO SYSTEMS WITH MULTI-ANTENNA USERS. , 2018, , .		29
57	On the Performance of Backhaul Constrained Cell-Free Massive MIMO with Linear Receivers. , 2018, , .		29
58	Full-Duplex Cell-Free Massive MIMO. , 2019, , .		29
59	Pilot Assignment for Joint Uplink-Downlink Spectral Efficiency Enhancement in Massive MIMO Systems With Spatial Correlation. IEEE Transactions on Vehicular Technology, 2021, 70, 8292-8297.	6.3	29
60	Antenna Count for Massive MIMO: 1.9 GHz vs. 60 GHz. IEEE Communications Magazine, 2018, 56, 132-137.	6.1	28
61	Towards Optimal Energy Efficiency in Cell-Free Massive MIMO Systems. IEEE Transactions on Green Communications and Networking, 2021, 5, 816-831.	5.5	28
62	Multipair massive MIMO full-duplex relaying with MRC/MRT processing. , 2014, , .		26
63	Energy Harvesting-Based D2D Communications in the Presence of Interference and Ambient RF Sources. IEEE Access, 2017, 5, 5224-5234.	4.2	26
64	On Pilot Spoofing Attack in Massive MIMO Systems: Detection and Countermeasure. IEEE Transactions on Information Forensics and Security, 2021, 16, 1396-1409.	6.9	25
65	Non-Coherent Massive MIMO Systems: A Constellation Design Approach. IEEE Transactions on Wireless Communications, 2020, 19, 3812-3825.	9.2	24
66	Enhanced Normalized Conjugate Beamforming for Cell-Free Massive MIMO. IEEE Transactions on Communications, 2021, 69, 2863-2877.	7.8	24
67	Does Massive MIMO Fail in Ricean Channels?. IEEE Wireless Communications Letters, 2019, 8, 61-64.	5.0	23
68	Deep Energy Autoencoder for Noncoherent Multicarrier MU-SIMO Systems. IEEE Transactions on Wireless Communications, 2020, 19, 3952-3962.	9.2	23
69	Uplink Spectral Efficiency of Cell-free Massive MIMO with Multi-Antenna Users. , 2019, , .		22
70	Linear Multihop Amplify-and-Forward Relay Channels: Error Exponent and Optimal Number of Hops. IEEE Transactions on Wireless Communications, 2011, 10, 3834-3842.	9.2	21
71	Massive MIMO Pilot Retransmission Strategies for Robustification against Jamming. IEEE Wireless Communications Letters, 2016, , 1-1.	5.0	20
72	NOMA/OMA Mode Selection-Based Cell-Free Massive MIMO. , 2019, , .		20

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73	Uplink performance analysis of multicell MU-MIMO with zero-forcing receivers and perfect CSI. , 2011, , .		19
74	Blind estimation of effective downlink channel gains in massive MIMO. , 2015, , .		19
75	Machine Learning-Based Channel Estimation in Massive MIMO with Channel Aging. , 2019, , .		18
76	Hybrid Processing Design for Multipair Massive MIMO Relaying With Channel Spatial Correlation. IEEE Transactions on Communications, 2019, 67, 107-123.	7.8	18
77	On the Energy Efficiency of Limited-Backhaul Cell-Free Massive MIMO. , 2019, , .		17
78	Multi-Cell Massive MIMO Uplink With Underlay Spectrum Sharing. IEEE Transactions on Cognitive Communications and Networking, 2019, 5, 119-137.	7.9	17
79	Spectral efficiency of the multipair two-way relay channel with massive arrays. , 2013, , .		16
80	Towards Large Intelligent Surface (LIS)-Based Communications. IEEE Transactions on Communications, 2020, 68, 6568-6582.	7.8	16
81	Uplink performance of conventional and massive MIMO cellular systems with delayed CSIT. , 2014, , .		15
82	Uplink Power Control in Massive MIMO With Double Scattering Channels. IEEE Transactions on Wireless Communications, 2022, 21, 1989-2005.	9.2	15
83	Random coding error exponent for dual-hop nakagami-m fading channels with amplify-and-forward relaying. IEEE Communications Letters, 2009, 13, 823-825.	4.1	13
84	First-Order Methods for Energy-Efficient Power Control in Cell-Free Massive MIMO : Invited Paper. , 2019, , .		13
85	Joint Resource Allocation to Minimize Execution Time of Federated Learning in Cell-Free Massive MIMO. IEEE Internet of Things Journal, 2022, 9, 21736-21750.	8.7	13
86	Power Allocation for Multi-Way Massive MIMO Relaying. IEEE Transactions on Communications, 2018, , 1-1.	7.8	12
87	Wireless Powered Wearables Using Distributed Massive MIMO. IEEE Transactions on Communications, 2020, 68, 2156-2172.	7.8	12
88	Deep Learning-Aided Finite-Capacity Fronthaul Cell-Free Massive MIMO with Zero Forcing. , 2020, , .		10
89	On the Aperture Efficiency of Intelligent Reflecting Surfaces. IEEE Wireless Communications Letters, 2021, 10, 599-603.	5.0	10
90	Straggler Effect Mitigation for Federated Learning in Cell-Free Massive MIMO. , 2021, , .		10

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91	Reconfigurable Intelligent Surface-Assisted Massive MIMO: Favorable propagation, channel hardening, and rank deficiency [Lecture Notes]. IEEE Signal Processing Magazine, 2022, 39, 97-104.	5.6	10
92	How Does Cell-Free Massive MIMO Support Multiple Federated Learning Groups?. , 2021, , .		9
93	Multi-way massive MIMO with maximum-ratio processing and imperfect CSI. , 2017, , .		8
94	Multi-Pair Two-Way Massive MIMO Relaying with Hardware Impairments over Rician Fading Channels. , 2018, , .		8
95	Utility Maximization for Large-Scale Cell-Free Massive MIMO Downlink. IEEE Transactions on Communications, 2021, 69, 7050-7062.	7.8	8
96	Transmission Schemes and Power Allocation for Multiuser Massive MIMO Relaying. IEEE Transactions on Vehicular Technology, 2021, 70, 11469-11482.	6.3	8
97	Design and Analysis of Full-Duplex Massive Antenna Array Systems Based on Wireless Power Transfer. IEEE Transactions on Communications, 2021, 69, 1302-1316.	7.8	7
98	Performance Analysis of OTFS-based Uplink Massive MIMO with ZF Receivers. , 2021, , .		7
99	Effective rate analysis of MISO Rician fading channels. , 2012, , .		6
100	Distributed space-time coding in two-way fixed gain relay networks over Nakagami-m fading. , 2012, , .		6
101	Revisiting MMSE Combining for Massive MIMO over Heterogeneous Propagation Channels. , 2018, , .		6
102	Accelerated Projected Gradient Method for the Optimization of Cell-Free Massive MIMO Downlink. , 2020, , .		6
103	Optimal Energy Efficiency in Cell-Free Massive MIMO Systems: A Stochastic Geometry Approach. , 2020, , .		6
104	Energy-efficient power allocation in cell-free massive MIMO with zero-forcing: First order methods. Physical Communication, 2022, 51, 101540.	2.1	6
105	Cell-Free Massive MIMO. , 2018, , 1-6.		5
106	Massive MIMO with Multi-Antenna Users under Jointly Correlated Ricean Fading. , 2020, , .		5
107	Pilot Assignment and Power Allocation for Multipair Massive MIMO DF Relaying Networks. IEEE Transactions on Vehicular Technology, 2020, 69, 7379-7388.	6.3	5
108	A Low-Complexity Approach for Max-Min Fairness in Uplink Cell-Free Massive MIMO. , 2021, , .		5

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109	Multi-way massive MIMO relay networks with maximum-ratio processing. , 2017, , .		4
110	Non-Coherent Massive MIMO Systems: A Constellation Design Approach. , 2019, , .		4
111	Massive MIMO with a Generalized Channel Model: Fundamental Aspects. , 2019, , .		4
112	Large Intelligent Surface (LIS)-based Communications: New Features and System Layouts. , 2020, , .		4
113	Hardening the Channels by Precoder Design in Massive MIMO With Multiple-Antenna Users. IEEE Transactions on Vehicular Technology, 2021, 70, 4541-4556.	6.3	4
114	RIS and Cell-Free Massive MIMO: A Marriage For Harsh Propagation Environments. , 2021, , .		4
115	Tensor-Based Joint Channel Estimation for Multi-Way Massive MIMO Hybrid Relay Systems. IEEE Transactions on Vehicular Technology, 2022, 71, 9571-9585.	6.3	4
116	IEEE Access Special Section Editorial: Modeling, Analysis, AND Design OF 5G Ultra-Dense Networks. IEEE Access, 2019, 7, 18894-18898.	4.2	3
117	Performance of a Novel Maximum-Ratio Precoder in Massive MIMO with Multiple-Antenna Users. , 2019, , .		3
118	Correction to â€œCell-Free Massive MIMO Versus Small Cellsâ€•[Mar 17 1834-1850]. IEEE Transactions on Wireless Communications, 2020, 19, 3623-3624.	9.2	3
119	Massive MIMO under Double Scattering Channels: Power Minimization and Congestion Controls. , 2021, , .		3
120	Electromagnetic Modeling of Holographic Intelligent Reflecting Surfaces at Terahertz Bands. , 2021, , .		3
121	Energy-Efficient Massive MIMO for Serving Multiple Federated Learning Groups. , 2021, , .		3
122	Amplify-and-forward two-way relay channels: Error exponents. , 2009, , .		2
123	How to Scale up the Spectral Efficiency of Multi-Way Massive MIMO Relaying?. , 2018, , .		2
124	Uplink Power Control in Cellular Massive MIMO Systems: Coping with the Congestion Issue. , 2020, , .		2
125	Massive MIMO. , 2021, , 101-127.		2
126	Design of Pilots and Power Control in the Cell-Free Massive MIMO Uplink. , 2020, , .		2

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127	Cell-Free Massive MIMO with Multiple-Antenna Users under I/Q Imbalance. , 2021, , .		2
128	Selective Infrastructure Activation in Cell-free Massive MIMO: a Two Time-scale Approach. , 2021, , .		2
129	Cell-Free Massive MIMO with OTFS Modulation: Power Control and Resource Allocation. , 2022, , .		2
130	Reliable amplify-and-forward two-way relay networks. , 2009, , .		1
131	Performance of cognitive radio networks with finite buffer using multiple vacations and exhaustive service. , 2014, , .		1
132	Massive MIMO AF Relaying with Channel Estimation and Power Control Techniques. , 2019, , .		1
133	Coherent MU-MIMO in Block Fading Channels: A Finite Blocklength Analysis. , 2020, , .		1
134	APG Method for Energy-Efficient Power Control in Cell-Free Massive MIMO with Zero-Forcing. , 2021, , .		1
135	A Time Series Based Study of Correlation, Channel Power Imbalance and Diversity Gain in Indoor Distributed Antenna Systems at 60 GHz. IEEE Transactions on Antennas and Propagation, 2021, , 1-1.	5.1	1
136	Massive MIMO under multi-keyhole channels: Does the use-and-then-forget bounding technique work?. Physical Communication, 2021, 47, 101384.	2.1	1
137	Correction to â€œMassive MIMO With Optimal Power and Training Duration Allocationâ€•[Dec 14 605-608]. IEEE Wireless Communications Letters, 2015, 4, 225-225.	5.0	0
138	Three-Way Massive MIMO Relaying with Successive Cancelation Decoding. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2018, , 79-90.	0.3	0
139	Cell-Free Massive MIMO. , 2020, , 165-169.		0
140	Improved Pilot Designs for Enhancing Connectivity in Multicarrier Massive MIMO Systems. IEEE Wireless Communications Letters, 2022, 11, 1057-1061.	5.0	0
141	Data Size-Aware Downlink Massive MIMO: A Session-Based Approach. IEEE Wireless Communications Letters, 2022, 11, 1468-1472.	5.0	0
142	Concentration of Measure: Non-Asymptotic Analysis for Uplink MU-MIMO. , 2022, , .		0