Youngchul Sung

List of Publications by Year
in descending order

67 papers	1,289 citations	430874 18 h-index	377865 34 g-index
67 all docs	67 docs citations	67 times ranked	1310 citing authors

#	Article	IF	Citations
1	Enabling technologies for AI empowered 6G massive radio access networks. ICT Express, 2023, 9, 341-355.	4.8	21
2	Training Signal Design for Sparse Channel Estimation in Intelligent Reflecting Surface-Assisted Millimeter-Wave Communication. IEEE Transactions on Wireless Communications, 2022, 21, 2399-2413.	9.2	11
3	Channel Estimation Techniques for RIS-Assisted Communication: Millimeter-Wave and Sub-THz Systems. IEEE Vehicular Technology Magazine, 2022, 17, 64-73.	3.4	27
4	Training Signal Design for Sparse Channel Estimation in Millimeter-Wave Communication with Intelligent Reflecting Surfaces. , 2021, , .		1
5	Fast Beam Search and Refinement for Millimeter-Wave Massive MIMO Based on Two-Level Phased Arrays. IEEE Transactions on Wireless Communications, 2020, 19, 6737-6751.	9.2	18
6	A High-Diversity Transceiver Design for MISO Broadcast Channels. IEEE Transactions on Wireless Communications, 2019, 18, 2591-2606.	9.2	4
7	Beam Design and User Scheduling for Nonorthogonal Multiple Access With Multiple Antennas Based on Pareto Optimality. IEEE Transactions on Signal Processing, 2018, 66, 2876-2891.	5.3	15
8	A New Approach to User Scheduling in Massive Multi-User MIMO Broadcast Channels. IEEE Transactions on Communications, 2018, 66, 1481-1495.	7.8	39
9	Common Pilot Signal Design for Non-Orthogonal Multiple Access in 5G. , 2018, , .		0
10	5G K-Simulator: Link Level Simulator for 5G. , 2018, , .		2
11	Filter Design for Generalized Frequency-Division Multiplexing. IEEE Transactions on Signal Processing, 2017, 65, 1644-1659.	5.3	49
12	A new transceiver architecture for multi-user MIMO communication based on mixture of linear and non-linear reception. , 2017, , .		3
13	Hybrid beamformer design for mmwave wideband multi-user MIMO-OFDM systems : (Invited paper). , 2017, , .		11
14	Improving Non-Orthogonal Multiple Access by Forming Relaying Broadcast Channels. IEEE Communications Letters, 2016, 20, 1816-1819.	4.1	40
15	Random beamforming combined with receive beamforming in mmWave multiuser MIMO downlink. , 2016, , .		0
16	Impact of training on mmWave multi-user MIMO downlink. , 2016, , .		3
17	Randomly-Directional Beamforming in Millimeter-Wave Multiuser MISO Downlink. IEEE Transactions on Wireless Communications, 2016, 15, 1086-1100.	9.2	121
18	Training Beam Sequence Design for Millimeter-Wave MIMO Systems: A POMDP Framework. IEEE Transactions on Signal Processing, 2016, 64, 1228-1242.	5.3	47

#	Article	IF	Citations
19	On the Performance of Random Beamforming in Sparse Millimeter Wave Channels. IEEE Journal on Selected Topics in Signal Processing, 2016, 10, 560-575.	10.8	50
20	Pilot beam sequence design for channel estimation in millimeter-wave MIMO systems: A POMDP framework. , 2015, , .		6
21	How many users are needed for non-trivial performance of random beamforming in highly-directional mm-wave MIMO downlink?. , 2015, , .		4
22	On the performance of randomly directional beamforming between line-of-sight and rich scattering channels. , 2015, , .		6
23	Two-Stage Beamformer Design for Massive MIMO Downlink By Trace Quotient Formulation. IEEE Transactions on Communications, 2015, 63, 2200-2211.	7.8	85
24	Pilot Signal Design for Massive MIMO Systems: A Received Signal-To-Noise-Ratio-Based Approach. IEEE Signal Processing Letters, 2015, 22, 549-553.	3.6	33
25	Asymptotically optimal simple user scheduling for massive MIMO downlink with two-stage beamforming. , 2014, , .		14
26	A New Precoder Design for Blind Channel Estimation in MIMO-OFDM Systems. IEEE Transactions on Wireless Communications, 2014, 13, 7011-7024.	9.2	18
27	Beam Tracking for Interference Alignment in Time-Varying MIMO Interference Channels: A Conjugate-Gradient-Based Approach. IEEE Transactions on Vehicular Technology, 2014, 63, 958-964.	6.3	13
28	Training signal design for channel estimation in massive MIMO systems. , 2014, , .		2
29	Pilot Beam Pattern Design for Channel Estimation in Massive MIMO Systems. IEEE Journal on Selected Topics in Signal Processing, 2014, 8, 787-801.	10.8	189
30	Filter-and-Forward Transparent Relay Design for OFDM Systems. IEEE Transactions on Vehicular Technology, 2013, 62, 4392-4407.	6.3	14
31	Optimal pilot beam pattern design for massive MIMO systems. , 2013, , .		14
32	An efficient parameterization for Pareto-optimal beamformers for k-user MIMO interference channels. , 2013, , .		1
33	Coordinated Beamforming With Relaxed Zero Forcing: The Sequential Orthogonal Projection Combining Method and Rate Control. IEEE Transactions on Signal Processing, 2013, 61, 3100-3112.	5.3	29
34	Dual-Domain Adaptive Beamformer Under Linearly and Quadratically Constrained Minimum Variance. IEEE Transactions on Signal Processing, 2013, 61, 2874-2886.	5.3	17
35	Guest Editorial: Theories and Methods for Advanced Wireless Relays â€" Issue II. IEEE Journal on Selected Areas in Communications, 2013, 31, 1361-1367.	14.0	8
36	The Bahadur efficiency for energy detection of stationary Gaussian processes. , 2012, , .		1

#	Article	IF	Citations
37	Beam Tracking for Interference Alignment in Slowly Fading MIMO Interference Channels: A Perturbations Approach Under a Linear Framework. IEEE Transactions on Signal Processing, 2012, 60, 1910-1926.	5.3	31
38	Outage Probability and Outage-Based Robust Beamforming for MIMO Interference Channels with Imperfect Channel State Information. IEEE Transactions on Wireless Communications, 2012, 11, 3561-3573.	9.2	36
39	An Efficient Algorithm for Zero-Forcing Coordinated Beamforming. IEEE Communications Letters, 2012, 16, 994-997.	4.1	17
40	A Joint Time-Invariant Filtering Approach to the Linear Gaussian Relay Problem. IEEE Transactions on Signal Processing, 2012, 60, 4360-4375.	5.3	4
41	Generalized Chernoff Information for Mismatched Bayesian Detection and Its Application to Energy Detection. IEEE Signal Processing Letters, 2012, 19, 753-756.	3.6	8
42	A new approach to beamformer design for massive MIMO systems based on k-Regularity. , 2012, , .		11
43	A Nonlinear Transceiver Architecture for Overloaded Multiuser MIMO Interference Channels. IEEE Transactions on Communications, 2012, 60, 946-951.	7.8	1
44	Sum Outage-Rate Maximization for MIMO Interference Channels. , 2011, , .		0
45	Adaptive beam tracking for interference alignment in time-varying MIMO interference channels: Conjugate gradient approach. , 2011, , .		3
46	Cross-Layer Performance Analysis for CSMA/CA Protocols: Impact of Imperfect Sensing. IEEE Transactions on Vehicular Technology, 2010, 59, 1100-1108.	6.3	22
47	Adaptive beam tracking for interference alignment for multiuser time-varying MIMO interference channels. , 2010, , .		5
48	Least Squares Approach to Joint Beam Design for Interference Alignment in Multiuser Multi-Input Multi-Output Interference Channels. IEEE Transactions on Signal Processing, 2010, 58, 4960-4966.	5.3	86
49	Iterative algorithm for interference alignment in multiuser mimo interference channels. , 2010, , .		3
50	Upper Bound for the Loss of Energy Detection of Signals in Multipath Fading Channels. IEEE Signal Processing Letters, 2009, 16, 949-952.	3.6	9
51	How Much Information Can One Get From a WirelessAd HocSensor Network Over a Correlated Random Field?. IEEE Transactions on Information Theory, 2009, 55, 2827-2847.	2.4	22
52	A least squares approach to joint beam design for interference alignment in multiuser interference channels. , 2009, , .		18
53	RawPEACH: Multiband CSMA/CA-based cognitive radio networks. Journal of Communications and Networks, 2009, 11, 175-186.	2.6	32
54	Sensor Configuration and Activation for Field Detection in Large Sensor Arrays. IEEE Transactions on Signal Processing, 2008, 56, 447-463.	5.3	18

#	Article	IF	Citations
55	Superposition data transmission for cognitive radios: Performance and algorithms. , 2008, , .		8
56	Optimal node density for two-dimensional sensor arrays. , 2008, , .		4
57	Large deviations analysis for the detection of 2D hidden Gauss-Markov random fields using sensor networks. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	3
58	Information, energy and density for Ad Hoc sensor networks over correlated random fields: Large deviations analysis. , 2008, , .		3
59	On optimal operating characteristics of sensing and training for cognitive radios. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	2
60	Neyman-Pearson detection of Gauss-Markov signals in noise: closed-form error exponent and properties. , 2005, , .		8
61	Asymptotic locally optimal detector for large-scale sensor networks under Poisson regime. , 2004, , .		0
62	A projection-based semi-blind channel estimation for long-code WCDMA. , 2002, , .		10
63	Channel tracking for fast fading long-code WCDMA. , 0, , .		1
64	Blind channel tracking for long-code WCDMA with linear interpolation model. , 0, , .		0
65	Asymptotic locally optimal detector for large-scale sensor networks under the Poisson regime. , 0, , .		1
66	Multitone acoustic sensor network with mobile access: an experimental testbed. , 0, , .		1
67	A Large Deviations Approach to Sensor Scheduling for Detection of Correlated Random Fields. , 0, , .		6