

Jyri Hämmäläinen

List of Publications by Year in descending order

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138
papers

1,473
citations

567281

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138
all docs

138
docs citations

138
times ranked

1118
citing authors

#	ARTICLE	IF	CITATIONS
1	System level analysis of vertical sectorization for 3GPP LTE. , 2009, , .		86
2	Effect of Relaying on Coverage in 3GPP LTE-Advanced. , 2009, , .		76
3	Evolution of Limited-Feedback CoMP Systems from 4G to 5G: CoMP Features and Limited-Feedback Approaches. IEEE Vehicular Technology Magazine, 2014, 9, 94-103.	3.4	72
4	On the Coverage Extension and Capacity Enhancement of Inband Relay Deployments in LTE-Advanced Networks. Journal of Electrical and Computer Engineering, 2010, 2010, 1-12.	0.9	56
5	Performance analysis of downlink OFDMA resource allocation with limited feedback. IEEE Transactions on Wireless Communications, 2009, 8, 2927-2937.	9.2	52
6	Outage Probabilities in Infrastructure-Based Single-Frequency Relay Links. , 2009, , .		49
7	Performance Enhancement in LTE-Advanced Relay Networks via Relay Site Planning. , 2010, , .		47
8	Embedding LTE-U within Wi-Fi Bands for Spectrum Efficiency Improvement. IEEE Network, 2017, 31, 72-79.	6.9	42
9	Comparison of Remote Electrical and Mechanical Antenna Downtilt Performance for 3GPP LTE. , 2009, , .		33
10	Impact of power control optimization on the system performance of relay based LTE-Advanced heterogeneous networks. Journal of Communications and Networks, 2011, 13, 345-359.	2.6	32
11	Optimal Energy-Efficient Relay Deployment for the Bidirectional Relay Transmission Schemes. IEEE Transactions on Vehicular Technology, 2014, 63, 2625-2641.	6.3	32
12	Analysis of the Impact of Site Planning on the Performance of Relay Deployments. IEEE Transactions on Vehicular Technology, 2012, 61, 3139-3150.	6.3	31
13	Performance of Amplify-and-Forward and Decode-and-Forward Relays in LTE-Advanced. , 2009, , .		29
14	Interference management for LTE-Advanced Het-Nets: stochastic scheduling approach in frequency domain. Transactions on Emerging Telecommunications Technologies, 2013, 24, 4-17.	3.9	26
15	Comparison of Relay and Pico eNB Deployments in LTE-Advanced. , 2009, , .		25
16	A unified protocol stack solution for LTE and WLAN in future mobile converged networks. IEEE Wireless Communications, 2014, 21, 24-33.	9.0	25
17	A Data-Driven Multiobjective Optimization Framework for Hyperdense 5G Network Planning. IEEE Access, 2020, 8, 169423-169443.	4.2	25
18	A Novel Multiobjective Cell Switch-Off Framework for Cellular Networks. IEEE Access, 2016, 4, 7883-7898.	4.2	23

#	ARTICLE	IF	CITATIONS
19	Analysis of Antenna Parameter Optimization Space for 3GPP LTE. , 2009, , .		22
20	Performance Analysis of Relay Site Planning Over Composite Fading/Shadowing Channels With Cochannel Interference. IEEE Transactions on Vehicular Technology, 2013, 62, 1692-1706.	6.3	22
21	Enhancing LTE-advanced relay deployments via Biasing in cell selection and handover decision. , 2010, , .		21
22	Resource sharing in LTE-Advanced relay networks: uplink system performance analysis. Transactions on Emerging Telecommunications Technologies, 2013, 24, 32-48.	3.9	21
23	Self-optimization of remote electrical tilt. , 2010, , .		19
24	Interference Mitigation by Practical Transmit Beamforming Methods in Closed Femtocells. Eurasip Journal on Wireless Communications and Networking, 2010, 2010, .	2.4	18
25	A Planning and Optimization Framework for Ultra Dense Cellular Deployments. Mobile Information Systems, 2017, 2017, 1-17.	0.6	18
26	Analysis of subcarrier pairing in a cellular OFDMA relay link. , 2008, , .		17
27	Flexible Backhaul Resource Sharing and Uplink Power Control Optimization in LTE-Advanced Relay Networks. , 2011, , .		17
28	Dominant interferer mitigation in closed femtocell deployment. , 2010, , .		16
29	Uplink performance optimization in relay enhanced LTE-Advanced networks. , 2009, , .		15
30	On cell range extension in LTE-Advanced Type 1 inband relay networks. Wireless Communications and Mobile Computing, 2015, 15, 770-786.	1.2	15
31	Performance of Quantized Random Beamforming in Delay-Tolerant Machine-Type Communication. IEEE Transactions on Wireless Communications, 2016, 15, 5664-5680.	9.2	15
32	Spatial Mappings for Planning and Optimization of Cellular Networks. IEEE/ACM Transactions on Networking, 2018, 26, 175-188.	3.8	15
33	Capacity of Generalized UTRA FDD Closed-Loop Transmit Diversity Modes. Wireless Personal Communications, 2010, 54, 467-484.	2.7	14
34	Self-optimization of random access channel in 3rd Generation Partnership Project Long Term Evolution. Wireless Communications and Mobile Computing, 2011, 11, 1507-1517.	1.2	14
35	Evaluating the energy efficiency of LTE-Advanced relay and Picocell deployments. , 2012, , .		14
36	Optimization of adaptive antenna system parameters in self-organizing LTE networks. Wireless Networks, 2013, 19, 1251-1267.	3.0	14

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37	On the Feasibility of Remote Driving Application over Dense 5G Roadside Networks. , 2019, , .		14
38	Co-phasing full-duplex relay link with non-ideal feedback information. , 2008, , .		12
39	On the Ergodic Mutual Information of Multiple Cluster Scattering MIMO Channels. IEEE Communications Letters, 2013, 17, 1700-1703.	4.1	12
40	Performance of Transmit Beamforming Codebooks with Separate Amplitude and Phase Quantization. IEEE Signal Processing Letters, 2015, 22, 813-817.	3.6	12
41	Indoor planning optimization of ultra-dense cellular networks at high carrier frequencies. , 2015, , .		12
42	Opportunistic Relay Selection with Cooperative Macro Diversity. Eurasip Journal on Wireless Communications and Networking, 2010, 2010, .	2.4	11
43	Approximation to Distribution of Product of Random Variables Using Orthogonal Polynomials for Lognormal Density. IEEE Communications Letters, 2012, 16, 2028-2031.	4.1	11
44	Asymptotic Analysis of Rayleigh Product Channels: A Free Probability Approach. IEEE Transactions on Information Theory, 2017, 63, 1731-1745.	2.4	11
45	Topology and irregularity in cellular networks. , 2015, , .		10
46	Two-step resource sharing and uplink power control optimization in LTE-Advanced relay networks. , 2011, , .		9
47	Automated uplink power control optimization in LTE-Advanced relay networks. Eurasip Journal on Wireless Communications and Networking, 2013, 2013, .	2.4	9
48	Route-based Radio Coverage Analysis of Cellular Network Deployments for V2N Communication. , 2019, , .		9
49	BEP analysis of OSTBC-OFDM systems with broadband pa and imperfect memory compensation. IEEE Communications Letters, 2007, 11, 940-942.	4.1	8
50	Outage capacity analysis of downlink ODFMA resource allocation with limited feedback. , 2008, , .		8
51	On Throughput-Fairness Tradeoff in Virtual MIMO Systems with Limited Feedback. Eurasip Journal on Wireless Communications and Networking, 2009, 2009, .	2.4	8
52	Joint optimization of uplink power control parameters in LTE-Advanced relay networks. , 2011, , .		8
53	Resource Allocation in Two-Tier Heterogeneous Networks through Enhanced Shadow Chasing. IEEE Transactions on Wireless Communications, 2013, 12, 6439-6453.	9.2	8
54	Visible Light Communication System in Presence of Indirect Lighting and Illumination Constraints. , 2020, , .		8

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55	Capacities of Physical Layer Scheduling Strategies on a Shared Link. <i>Wireless Personal Communications</i> , 2006, 39, 115-134.	2.7	7
56	On the Solution of Scatter Density in Geometry-Based Channel Models. <i>IEEE Transactions on Wireless Communications</i> , 2007, 6, 1054-1062.	9.2	7
57	Joint interference coordination and relay cell expansion in LTE-Advanced networks. , 2012, , .		7
58	On Performance Loss of Some CoMP Techniques Under Channel Power Imbalance and Limited Feedback. <i>IEEE Transactions on Wireless Communications</i> , 2015, 14, 4469-4481.	9.2	7
59	Looking at Cellular Networks Through Canonical Domains and Conformal Mapping. <i>IEEE Transactions on Wireless Communications</i> , 2016, 15, 3703-3717.	9.2	7
60	Uplink resource partitioning in relay enhanced LTE-Advanced networks. , 2009, , .		6
61	Smart Hybrid-ARQ (SHARQ) for cooperative communication via distributed relays in LTE-advanced. , 2011, , .		6
62	Self-optimization of Random Access Channel in 3GPP LTE. , 2011, , .		6
63	A divide-and-conquer approach to mitigate relay-to-relay interference. , 2011, , .		6
64	Performance study for off-grid self-backhauled small cells in dense informal settlements. , 2014, , .		6
65	Doppler Spectrum Analysis of a Roadside Scatterer Model for Vehicle-to-Vehicle Channels: An Indirect Method. <i>IEEE Transactions on Wireless Communications</i> , 2018, 17, 8007-8021.	9.2	6
66	Usability Benefits and Challenges in mmWave V2V Communications: A Case Study. , 2019, , .		6
67	The Effect of Power Allocation on Visible Light Communication Using Commercial Phosphor-Converted Led Lamp for Indirect Illumination. , 2020, , .		6
68	Massive MIMO Beamforming in Monostatic Backscatter Multi-Tag Networks. <i>IEEE Communications Letters</i> , 2021, 25, 1323-1327.	4.1	6
69	On Buffering at the Relay Node in LTE-Advanced. , 2011, , .		5
70	Performance of relay enhanced LTE-Advanced networks for selected suburban scenarios in emerging market environments. , 2012, , .		5
71	Capacity Analysis of Downlink MIMO-OFDMA Resource Allocation with Limited Feedback. <i>IEEE Transactions on Communications</i> , 2013, 61, 120-130.	7.8	5
72	Coordinated multi-point transmission for relaxation of self-backhauling bottlenecks in heterogeneous networks. <i>Eurasip Journal on Wireless Communications and Networking</i> , 2015, 2015, .	2.4	5

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73	Indoor planning and optimization of LTE-U radio access over WiFi. , 2016, , .		5
74	Vertical sectorization in self-organizing LTE-advanced networks. Wireless Networks, 2016, 22, 1685-1698.	3.0	5
75	Reinforcement Learning Based Mobility Load Balancing with the Cell Individual Offset. , 2021, , .		5
76	Coordinated Multipoint transmission for LTE-Advanced networks in dense informal settlements. , 2013, , .		4
77	Improving MU-MIMO performance in LTE-(advanced) by efficiently exploiting feedback resources and through dynamic scheduling. , 2013, , .		4
78	A Blind Time-Reversal Detector in the Presence of Channel Correlation. IEEE Signal Processing Letters, 2013, 20, 459-462.	3.6	4
79	Performance of coarse relay site planning in composite fading/shadowing environments. , 2013, , .		4
80	Use of Coordinated Multipoint Transmission for Relaxation of Relay Link Bottlenecks. , 2014, , .		4
81	Optimized mobile connectivity for bandwidth-hungry, delay-tolerant cloud services toward 5G. , 2014, , .		4
82	Random forest learning method to identify different objects using channel estimations from VLC link. , 2020, , .		4
83	Ultra-Low-Power Wide Range Backscatter Communication Using Cellular Generated Carrier. Sensors, 2021, 21, 2663.	3.8	4
84	Subchannel Allocation in Relay-Enhanced OFDMA Downlink with Imperfect Feedback. , 2009, , .		3
85	Outage capacity analysis of resource allocation in downlink MIMO-OFDMA systems with the best-M feedback method. , 2009, , .		3
86	Impact of preconditioning on the convergence of numerical co-channel interference approximations in heterogeneous networks. , 2011, , .		3
87	Shadow chasing enhancement in resource allocation for heterogeneous networks. , 2012, , .		3
88	Performance of distributed beamforming for dense relay deployments in the presence of limited feedback information. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.7	3
89	Outage constrained joint precoding for D2D underlay cellular networks. , 2013, , .		3
90	Practical Coarse Relay Site Planning: Performance Analysis Over Composite Fading/Shadowing Channels. International Journal of Wireless Information Networks, 2014, 21, 249-261.	2.7	3

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91	On the finite-SNR Diversity-Multiplexing Tradeoff in large Rayleigh product channels. , 2015, , .		3
92	On the Sum Rate of Fair Resource Allocation With Selective Feedback. IEEE Transactions on Wireless Communications, 2016, 15, 5193-5205.	9.2	3
93	End-to-End Data Rate Performance of Decode-and-Forward Relaying with Different Resource Allocation Schemes. Mobile Information Systems, 2017, 2017, 1-11.	0.6	3
94	Asymptotic Analysis for Spectrum-Sharing Systems With TAS/MRC Using Extreme Value Theory: An Overlooked Aspect. IEEE Access, 2019, 7, 138062-138078.	4.2	3
95	Analysis of Drone Propagation With Ray Tracing From Sub-6 GHz Upto Terahertz Frequencies in a Real World Urban Environment. , 2021, , .		3
96	Outage Probability Analysis of Practical Multiuser Scheduling Schemes with Limited Feedback. IEEE Vehicular Technology Conference, 2007, , .	0.4	2
97	Capacity analysis of downlink MIMO-OFDMA frequency allocation with imperfect feedback information. , 2009, , .		2
98	Combined transmit beamforming and channel-aware scheduling for interference mitigation in femtocells. Eurasip Journal on Wireless Communications and Networking, 2012, 2012, .	2.4	2
99	Pre-processor for MAC-layer scheduler to efficiently manage buffer in modern wireless networks. , 2014, , .		2
100	Opportunistic interference avoidance scheduling for underlay cognitive radio networks. , 2014, , .		2
101	LTE-Advanced enhancements for self-backhauled LTE-U small cells: An Addis Ababa case study. , 2015, , .		2
102	A collaborative approach for local training on contemporary mobile technologies in Eritrea. , 2017, , .		2
103	The Joint Impact of Fading Severity, Irregular Constellation, and Non-Gaussian Noise on Signal Space Diversity-Based Relaying Networks. IEEE Access, 2019, 7, 116162-116171.	4.2	2
104	Low-Overhead Multi-Antenna-Enabled Random Access for Machine-Type Communications with Low Mobility. , 2019, , .		2
105	Visible light communication-based monitoring for indoor environments using unsupervised learning. , 2021, , .		2
106	Performance Evaluation of Relaying with Different Relay Selection Schemes in 5G NR V2X Communications. , 2021, , .		2
107	Outage Capacity Analysis of Downlink OFDMA Resource Allocation with Multiple Transmit Antennae and Limited Feedback. , 2008, , .		1
108	Performance Analysis of Maximum SNR Scheduling with an Infrastructure Relay Link. Wireless Personal Communications, 2011, 56, 277-299.	2.7	1

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109	Novel approximations to the statistics of general cascaded Nakagami-m channels and their applications in performance analysis. , 2013, , .		1
110	Performance of altruistic beamforming for mitigation of multiple cross-layer interference sources in heterogeneous networks. , 2013, , .		1
111	Three-Step Iterative Scheduler for QoS Provisioning to Users Running Multiple Services in Parallel. , 2014, , .		1
112	Use of beamforming and interference mitigation techniques for relay backhaul enhancement. , 2016, , .		1
113	Energy Saving Scheme for Multicarrier HSPA + Under Realistic Traffic Fluctuation. Mobile Networks and Applications, 2016, 21, 247-258.	3.3	1
114	Measurements and Ray Tracing Simulations: Impact of Different Antenna Positions on Meeting Room Coverage at 60 GHz. , 2020, , .		1
115	Low-Overhead Joint Beam-Selection and Random-Access Schemes for Massive Internet-of-Things with Non-Uniform Channel and Load. , 2020, , .		1
116	Data-Oriented View for Convolutional Coding With Adaptive Irregular Constellations. IEEE Communications Letters, 2021, 25, 1771-1775.	4.1	1
117	Visible light communication-based positioning for indoor environments using supervised learning. , 2020, , .		1
118	The Effect of On-Off Scheduling to the Required Transmit Power in Systems with Fast Power Control. Wireless Personal Communications, 2005, 35, 337-352.	2.7	0
119	Minimizing the Effect of Feedback Delay in a Multi-User System through Adaptive Feedback Scheduling. , 2013, , .		0
120	Power Minimization with Rate Constraint in Downlink Multi-Cell Cooperative MIMO Systems. , 2013, , .		0
121	User association and load balancing in long term evolution network in Addis Ababa, Ethiopia. , 2015, , .		0
122	Performance Analysis of Hierarchically Combined Practical Beamforming Methods. Wireless Personal Communications, 2015, 84, 1855-1875.	2.7	0
123	Power imbalance induced BER performance loss under limited-feedback CoMP techniques. Eurasip Journal on Wireless Communications and Networking, 2016, 2016, .	2.4	0
124	Canonical domains for cellular networks: Analysis of the one-dimensional case. , 2016, , .		0
125	A Planning and Optimization Framework for Hybrid Ultra-Dense Network Topologies. , 2018, , .		0
126	A simple approach for the suppression of Rician interference in a relay backhaul using limited feedback. Physical Communication, 2018, 29, 171-182.	2.1	0

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127	A Convolutionally Encoded OSTBC System with SNR-Adaptive Constellations for Low-Latency and Low-Complexity Communications. , 2018, , .		0
128	Capacity Demand based Multiobjective Optimal Small Cell Placement under Realistic Deployment Scenario. , 2019, , .		0
129	Comparison of Multiobjective Optimal and Collocated 4G and 5G Small Cells Using Street Lampposts as Candidate Locations. , 2019, , .		0
130	Coded Transmission under Non-Cooperative Radar Interference. , 2020, , .		0
131	Adaptive Irregular Constellations for Full-Duplex Relaying With Residual Self-Interference. IEEE Transactions on Wireless Communications, 2021, 20, 7682-7693.	9.2	0
132	A study about signal variation with minor receiver displacement in a meeting room at 60ÅGHz: measurements and simulations. Eurasip Journal on Wireless Communications and Networking, 2021, 2021, .	2.4	0
133	Distributed Antenna System in 3GPP Specified Industrial Environment. , 2021, , .		0
134	A Traffic Aware Energy Saving Scheme for Multicarrier HSPA+. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2015, , 192-206.	0.3	0
135	On the Performance of Indoor Ultra-Dense Networks for Millimetre-Wave Cellular Systems. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2015, , 83-94.	0.3	0
136	Coexistence Management Approach for Densification of Randomly Deployed Low Power Nodes in TVWS Spectrum. Lecture Notes in Computer Science, 2019, , 220-232.	1.3	0
137	Quality Evaluation for Indoor Mobile Data Customers in Addis Ababa Business Area Using Data from Network Management System, Walk Test, Crowdsourcing and Subjective Survey. Communications in Computer and Information Science, 2019, , 164-175.	0.5	0
138	Interplay between vertical sectorization and user distribution for urban NB-IoT networks. , 2022, , .		0