Hesham ElSawy

List of Publications by Year
in descending order

104 papers	3,920 citations	279798 23 h-index	168389 53 g-index
104 all docs	104 docs citations	104 times ranked	2933 citing authors

#	Article	IF	Citations
1	Performance Analysis and Optimization of Cache-Assisted CoMP for Clustered D2D Networks. IEEE Transactions on Mobile Computing, 2022, 21, 1334-1348.	5.8	2
2	Spatiotemporal Dependable Task Execution Services in MEC-Enabled Wireless Systems. IEEE Wireless Communications Letters, 2021, 10, 211-215.	5.0	11
3	Rate Adaptation and Latency in Heterogeneous IoT Networks. IEEE Communications Letters, 2021, 25, 660-664.	4.1	2
4	Prioritized Multistream Traffic in Uplink IoT Networks: Spatially Interacting Vacation Queues. IEEE Internet of Things Journal, 2021, 8, 1477-1491.	8.7	14
5	Grant-Free Opportunistic Uplink Transmission in Wireless-Powered IoT: A Spatio-Temporal Model. IEEE Transactions on Communications, 2021, 69, 991-1006.	7.8	12
6	Safeguarding the IoT From Malware Epidemics: A Percolation Theory Approach. IEEE Internet of Things Journal, 2021, 8, 6039-6052.	8.7	14
7	Meta Distribution of Downlink SIR for Binomial Point Processes. IEEE Wireless Communications Letters, 2021, 10, 1557-1561.	5.0	3
8	Characterizing IoT Networks With Asynchronous Time-Sensitive Periodic Traffic. IEEE Wireless Communications Letters, 2020, 9, 1696-1700.	5.0	10
9	Stochastic Geometry Analysis of Hybrid Aerial Terrestrial Networks with mmWave Backhauling. , 2020, , .		15
10	Spatial Firewalls: Quarantining Malware Epidemics in Large-Scale Massive Wireless Networks. IEEE Communications Magazine, 2020, 58, 32-38.	6.1	11
11	On the Opportunities and Challenges of NOMA-Based Fog Radio Access Networks: An Overview. IEEE Access, 2020, 8, 205467-205476.	4.2	16
12	Interference Management in NOMA-Based Fog-Radio Access Networks via Scheduling and Power Allocation. IEEE Transactions on Communications, 2020, 68, 5056-5071.	7.8	21
13	Recycling Cellular Energy for Self-Sustainable IoT Networks: A Spatiotemporal Study. IEEE Transactions on Wireless Communications, 2020, 19, 2699-2712.	9.2	19
14	A Spatiotemporal Model for Peak AoI in Uplink IoT Networks: Time Versus Event-Triggered Traffic. IEEE Internet of Things Journal, 2020, 7, 6762-6777.	8.7	57
15	Optimized Caching and Spectrum Partitioning for D2D Enabled Cellular Systems With Clustered Devices. IEEE Transactions on Communications, 2020, 68, 4358-4374.	7.8	12
16	A Spatiotemporal Framework for Information Freshness in IoT Uplink Networks. , 2020, , .		3
17	Latency in Downlink Cellular Networks with Random Scheduling. , 2019, , .		2
18	Network-Wide Throughput Optimization for Highway Vehicle-To-Vehicle Communications. Electronics (Switzerland), 2019, 8, 830.	3.1	4

#	Article	IF	Citations
19	Aeronautical Data Aggregation and Field Estimation in IoT Networks: Hovering and Traveling Time Dilemma of UAVs. IEEE Transactions on Wireless Communications, 2019, 18, 4620-4635.	9.2	42
20	Handover Rate Characterization in 3D Ultra-Dense Heterogeneous Networks. IEEE Transactions on Vehicular Technology, 2019, 68, 10340-10345.	6.3	17
21	Uncoordinated Massive Wireless Networks: Spatiotemporal Models and Multiaccess Strategies. IEEE/ACM Transactions on Networking, 2019, 27, 918-931.	3.8	35
22	Meta Distribution of Downlink Non-Orthogonal Multiple Access (NOMA) in Poisson Networks. IEEE Wireless Communications Letters, 2019, 8, 572-575.	5.0	12
23	Uplink Power Control and Ergodic Rate Characterization in FD Cellular Networks: A Stochastic Geometry Approach. IEEE Transactions on Wireless Communications, 2019, 18, 2093-2110.	9.2	14
24	Grant-Free Uplink Transmission in Self-Powered IoT Networks. , 2019, , .		1
25	Cooperative Transmission and Probabilistic Caching for Clustered D2D Networks. , 2019, , .		10
26	Caching to the Sky: Performance Analysis of Cache-Assisted CoMP for Cellular-Connected UAVs. , 2019, , .		24
27	Downlink Non-Orthogonal Multiple Access (NOMA) in Poisson Networks. IEEE Transactions on Communications, 2019, 67, 1613-1628.	7.8	62
28	Self-Organized Scheduling Request for Uplink 5G Networks: A D2D Clustering Approach. IEEE Transactions on Communications, 2019, 67, 1197-1209.	7.8	30
29	On the Effect of Uplink Power Control on Temporal Retransmission Diversity. IEEE Wireless Communications Letters, 2019, 8, 309-312.	5.0	8
30	Base Station Ordering for Emergency Call Localization in Ultra-Dense Cellular Networks. IEEE Access, 2018, 6, 301-315.	4.2	21
31	Joint Downlink/Uplink RF Wake-Up Solution for IoT Over Cellular Networks. IEEE Transactions on Wireless Communications, 2018, 17, 1574-1588.	9.2	25
32	Cooperative HARQ-Assisted NOMA Scheme in Large-Scale D2D Networks. IEEE Transactions on Communications, 2018, 66, 4286-4302.	7.8	45
33	Optimal Caching in 5G Networks With Opportunistic Spectrum Access. IEEE Transactions on Wireless Communications, 2018, 17, 4447-4461.	9.2	17
34	Recycling Cellular Downlink Energy for Overlay Self-Sustainable IoT Networks. , 2018, , .		2
35	Aerial Data Aggregation in IoT Networks: Hovering & Traveling Time Dilemma. , 2018, , .		8
36	Integrating UAVs into Existing Wireless Networks: A Stochastic Geometry Approach. , 2018, , .		24

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37	Flexible Design of Millimeter-Wave Cache Enabled Fog Networks. , 2018, , .		2
38	Joint Scheduling and Power Adaptation in NOMA-Based Fog-Radio Access Networks. , 2018, , .		5
39	Spatiotemporal Model for Uplink IoT Traffic: Scheduling and Random Access Paradox. IEEE Transactions on Wireless Communications, 2018, 17, 8357-8372.	9.2	34
40	On Minimizing Energy Consumption for D2D Clustered Caching Networks. , 2018, , .		14
41	Analyzing Non-Orthogonal Multiple Access (NOMA) in Downlink Poisson Cellular Networks. , 2018, , .		9
42	Green Internet of Things (IoT): Enabling Technologies, Architectures, Performance, and Design Issues. Wireless Communications and Mobile Computing, 2018, 2018, 1-2.	1.2	1
43	Distributed resource allocation in full-duplex cellular networks with partial spectrum overlap. , 2018, , .		1
44	Velocity-Aware Handover Management in Two-Tier Cellular Networks. IEEE Transactions on Wireless Communications, 2017, 16, 1851-1867.	9.2	87
45	On the Meta Distribution of Coverage Probability in Uplink Cellular Networks. IEEE Communications Letters, 2017, 21, 1625-1628.	4.1	20
46	Spatiotemporal Stochastic Modeling of IoT Enabled Cellular Networks: Scalability and Stability Analysis. IEEE Transactions on Communications, 2017, , 1-1.	7.8	105
47	The Effect of Spatial Interference Correlation and Jamming on Secrecy in Cellular Networks. IEEE Wireless Communications Letters, 2017, 6, 530-533.	5.0	16
48	Interference Management in Full-Duplex Cellular Networks With Partial Spectrum Overlap. IEEE Access, 2017, 5, 7567-7583.	4.2	15
49	Downlink Error Rates of Half-Duplex Users in Full-Duplex Networks Over a Laplacian Inter-User Interference Limited and EGK Fading. IEEE Transactions on Wireless Communications, 2017, 16, 2693-2707.	9.2	4
50	First Mile Challenges for Large-Scale IoT. , 2017, 55, 138-144.		29
51	A Hybrid Energy Sharing Framework for Green Cellular Networks. IEEE Transactions on Communications, 2017, 65, 918-934.	7.8	67
52	Mobility-Aware User Association in Uplink Cellular Networks. IEEE Communications Letters, 2017, 21, 2452-2455.	4.1	14
53	Error rates of a full-duplex system over EGK fading channels subject to laplacian interference. , 2017, , .		3
54	A spatiotemporal model for the LTE uplink: Spatially interacting tandem queues approach. , 2017, , .		4

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55	Non-Orthogonal Multiple Access for Large-Scale 5G Networks: Interference Aware Design. IEEE Access, 2017, 5, 21204-21216.	4.2	58
56	Stochastic geometry model for multi-channel fog radio access networks. , 2017, , .		3
57	Optimizing mission critical data dissemination in massive IoT networks. , 2017, , .		16
58	Modeling and Analysis of Cellular Networks Using Stochastic Geometry: A Tutorial. IEEE Communications Surveys and Tutorials, 2017, 19, 167-203.	39.4	348
59	Analysis of an ID-Based RF Wake-Up Solution for IoT over Cellular Networks. , 2017, , .		3
60	Optimal Caching in Multicast 5G Networks with Opportunistic Spectrum Access. , 2017, , .		3
61	The Advents of Device-to-Device Relaying for Massively Loaded 5G Networks. , 2017, , .		2
62	On the scalability of uncoordinated multiple access for the Internet of Things. , 2017, , .		16
63	Flexible Design for Î±-Duplex Communications in Multi-Tier Cellular Networks. IEEE Transactions on Communications, 2016, 64, 3548-3562.	7.8	17
64	Energy Sharing Framework for Microgrid-Powered Cellular Base Stations. , 2016, , .		12
65	Cooperative Handover Management in Dense Cellular Networks. , 2016, , .		28
66	Tractable Stochastic Geometry Model for IoT Access in LTE Networks. , 2016, , .		18
67	Handover Management in 5G and Beyond: A Topology Aware Skipping Approach. IEEE Access, 2016, 4, 9073-9081.	4.2	111
68	Mobility-Aware Modeling and Analysis of Dense Cellular Networks With C -Plane/ U -Plane Split Architecture. IEEE Transactions on Communications, 2016, 64, 4879-4894.	7.8	39
69	Modeling Cellular Networks With Full-Duplex D2D Communication: A Stochastic Geometry Approach. IEEE Transactions on Communications, 2016, 64, 4409-4424.	7.8	60
70	A Unified Stochastic Geometry Model for MIMO Cellular Networks With Retransmissions. IEEE Transactions on Wireless Communications, 2016, 15, 8595-8609.	9.2	31
71	In-Band <inline-formula> <tex-math notation="LaTeX">$alpha $ </tex-math> </inline-formula>-Duplex Scheme for Cellular Networks: A Stochastic Geometry Approach. IEEE Transactions on Wireless Communications, 2016, 15, 6797-6812.	9.2	41
72	Interference management with partial uplink/downlink spectrum overlap. , 2016, , .		7

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73	Handover management in dense cellular networks: A stochastic geometry approach. , 2016, , .		55
74	Harvesting full-duplex rate gains in cellular networks with half-duplex user terminals. , 2016, , .		4
75	Unified tractable model for downlink MIMO cellular networks using stochastic geometry. , 2016, , .		2
76	Modeling cellular networks in fading environments with dominant specular components. , 2016, , .		9
77	A Stochastic Geometry Model for Multi-Hop Highway Vehicular Communication. IEEE Transactions on Wireless Communications, 2016, 15, 2276-2291.	9.2	82
78	In-Band Full-Duplex Communications for Cellular Networks with Partial Uplink/Downlink Overlap. , 2015, , .		6
79	Limits on the Capacity of In-Band Full Duplex Communication in Uplink Cellular Networks. , 2015, , .		11
80	Modeling Inter-Vehicle Communication in Multi-Lane Highways: A Stochastic Geometry Approach. , 2015, , .		17
81	Narrowband interference parameterization for sparse Bayesian recovery. , 2015, , .		2
82	The Influence of Gaussian Signaling Approximation on Error Performance in Cellular Networks. IEEE Communications Letters, 2015, 19, 2202-2205.	4.1	15
83	Error performance analysis in downlink cellular networks with interference management. , 2015, , .		6
84	Error performance analysis in K-tier uplink cellular networks using a stochastic geometric approach. , 2015, , .		11
85	On mode selection and power control for uplink D2D communication in cellular networks. , 2015, , .		14
86	Virtualized cognitive network architecture for 5G cellular networks. , 2015, 53, 78-85.		22
87	Modeling virtualized downlink cellular networks with ultra-dense small cells. , 2015, , .		17
88	Load-aware modeling for uplink cellular networks in a multi-channel environment. , 2014, , .		17
89	Location-aware coordinated multipoint transmission in OFDMA networks. , 2014, , .		8
90	Analysis of uplink transmissions in cellular networks: A stochastic geometry approach. , 2014, , .		1

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91	Spectrum-Efficient Multi-Channel Design for Coexisting IEEE 802.15.4 Networks: A Stochastic Geometry Approach. IEEE Transactions on Mobile Computing, 2014, 13, 1611-1624.	5.8	18
92	Analytical Modeling of Mode Selection and Power Control for Underlay D2D Communication in Cellular Networks. IEEE Transactions on Communications, 2014, 62, 4147-4161.	7.8	288
93	On Stochastic Geometry Modeling of Cellular Uplink Transmission With Truncated Channel Inversion Power Control. IEEE Transactions on Wireless Communications, 2014, 13, 4454-4469.	9.2	212
94	Two-Tier HetNets with Cognitive Femtocells: Downlink Performance Modeling and Analysis in a Multichannel Environment. IEEE Transactions on Mobile Computing, 2014, 13, 649-663.	5.8	114
95	In-Band Full-Duplex Communications for Cellular Networks with Partial Uplink/Downlink Overlap. , 2014, , .		1
96	HetNets with cognitive small cells: user offloading and distributed channel access techniques. , 2013, 51, 28-36.		135
97	Stochastic Geometry for Modeling, Analysis, and Design of Multi-Tier and Cognitive Cellular Wireless Networks: A Survey. IEEE Communications Surveys and Tutorials, 2013, 15, 996-1019.	39.4	806
98	Multi-channel design for random CSMA wireless networks: A stochastic geometry approach. , 2013, , .		8
99	Traffic offloading techniques in two-tier femtocell networks. , 2013, , .		23
100	Channel assignment and opportunistic spectrum access in two-tier cellular networks with cognitive small cells. , 2013, , .		13
101	A Modified Hard Core Point Process for Analysis of Random CSMA Wireless Networks in General Fading Environments. IEEE Transactions on Communications, 2013, 61, 1520-1534.	7.8	75
102	Characterizing random CSMA wireless networks: A stochastic geometry approach. , 2012, , .		40
103	Modeling random CSMA wireless networks in general fading environments. , 2012, , .		17
104	A Distributed Spectrum Sharing Method for Improving Coexistence of IEEE 802.15.4 Networks. , 2011, , .		3