

Alberto Cabellos Aparicio

List of Publications by Year in descending order

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Version: 2024-02-01

118
papers

3,442
citations

201674

27
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182427

51
g-index

118
all docs

118
docs citations

118
times ranked

2569
citing authors

#	ARTICLE	IF	CITATIONS
1	Graphene-based nano-patch antenna for terahertz radiation. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2012, 10, 353-358.	2.0	331
2	Knowledge-Defined Networking. <i>Computer Communication Review</i> , 2017, 47, 2-10.	1.8	278
3	RouteNet: Leveraging Graph Neural Networks for Network Modeling and Optimization in SDN. <i>IEEE Journal on Selected Areas in Communications</i> , 2020, 38, 2260-2270.	14.0	160
4	Detection Techniques for Diffusion-based Molecular Communication. <i>IEEE Journal on Selected Areas in Communications</i> , 2013, 31, 726-734.	14.0	147
5	Toward Intelligent Metasurfaces: The Progress from Globally Tunable Metasurfaces to Software-Defined Metasurfaces with an Embedded Network of Controllers. <i>Advanced Optical Materials</i> , 2020, 8, 2000783.	7.3	145
6	Graphene-enabled wireless communication for massive multicore architectures. , 2013, 51, 137-143.		128
7	Diffusion-based physical channel identification in molecular nanonetworks. <i>Nano Communication Networks</i> , 2011, 2, 196-204.	2.9	124
8	Unveiling the potential of Graph Neural Networks for network modeling and optimization in SDN. , 2019, , .		124
9	Physical channel characterization for medium-range nanonetworks using flagellated bacteria. <i>Computer Networks</i> , 2011, 55, 779-791.	5.1	95
10	Digital Metasurface Based on Graphene: An Application to Beam Steering in Terahertz Plasmonic Antennas. <i>IEEE Nanotechnology Magazine</i> , 2019, 18, 734-746.	2.0	81
11	Analysis of the impact of sampling on NetFlow traffic classification. <i>Computer Networks</i> , 2011, 55, 1083-1099.	5.1	76
12	Reprogrammable Graphene-based Metasurface Mirror with Adaptive Focal Point for THz Imaging. <i>Scientific Reports</i> , 2019, 9, 2868.	3.3	68
13	DIRECT: A model for molecular communication nanonetworks based on discrete entities. <i>Nano Communication Networks</i> , 2013, 4, 181-188.	2.9	66
14	Computing and Communications for the Software-Defined Metamaterial Paradigm: A Context Analysis. <i>IEEE Access</i> , 2017, 5, 6225-6235.	4.2	62
15	Use of Terahertz Photoconductive Sources to Characterize Tunable Graphene RF Plasmonic Antennas. <i>IEEE Nanotechnology Magazine</i> , 2015, 14, 390-396.	2.0	56
16	N3Sim: Simulation framework for diffusion-based molecular communication nanonetworks. <i>Simulation Modelling Practice and Theory</i> , 2014, 42, 210-222.	3.8	53
17	Medium Access Control in Wireless Network-on-Chip: A Context Analysis. , 2018, 56, 172-178.		52
18	Time-Domain Analysis of Graphene-Based Miniaturized Antennas for Ultra-Short-Range Impulse Radio Communications. <i>IEEE Transactions on Communications</i> , 2015, 63, 1470-1482.	7.8	51

#	ARTICLE	IF	CITATIONS
19	Programmable Metasurfaces: State of the Art and Prospects. , 2018, , .		49
20	LISP-TREE: A DNS Hierarchy to Support the LISP Mapping System. IEEE Journal on Selected Areas in Communications, 2010, 28, 1332-1343.	14.0	46
21	Characterization of graphene-based nano-antennas in the terahertz band. , 2012, , .		46
22	Simulation-based evaluation of the diffusion-based physical channel in molecular nanonetworks. , 2011, , .		45
23	Routing in optical transport networks with deep reinforcement learning. Journal of Optical Communications and Networking, 2019, 11, 547.	4.8	43
24	Exploration of Intercell Wireless Millimeter-Wave Communication in the Landscape of Intelligent Metasurfaces. IEEE Access, 2019, 7, 122931-122948.	4.2	41
25	OrthoNoC: A Broadcast-Oriented Dual-Plane Wireless Network-on-Chip Architecture. IEEE Transactions on Parallel and Distributed Systems, 2018, 29, 628-641.	5.6	39
26	Understanding the Modeling of Computer Network Delays using Neural Networks. , 2018, , .		39
27	On the Area and Energy Scalability of Wireless Network-on-Chip: A Model-Based Benchmarked Design Space Exploration. IEEE/ACM Transactions on Networking, 2015, 23, 1501-1513.	3.8	38
28	Scalability of Broadcast Performance in Wireless Network-on-Chip. IEEE Transactions on Parallel and Distributed Systems, 2016, 27, 3631-3645.	5.6	38
29	Networking challenges and principles in diffusion-based molecular communication. IEEE Wireless Communications, 2012, 19, 36-41.	9.0	37
30	Scalability Analysis of Programmable Metasurfaces for Beam Steering. IEEE Access, 2020, 8, 105320-105334.	4.2	36
31	LISP-MN: Mobile Networking Through LISP. Wireless Personal Communications, 2013, 70, 253-266.	2.7	35
32	Broadcast-Enabled Massive Multicore Architectures: A Wireless RF Approach. IEEE Micro, 2015, 35, 52-61.	1.8	33
33	Immersive Interconnected Virtual and Augmented Reality: A 5G and IoT Perspective. Journal of Network and Systems Management, 2020, 28, 796-826.	4.9	32
34	Reconfigurable THz Plasmonic Antenna Based on Few-Layer Graphene with High Radiation Efficiency. Nanomaterials, 2018, 8, 577.	4.1	30
35	Intercell Wireless Communication in Software-defined Metasurfaces. , 2018, , .		28
36	Graphene-Based terahertz antennas for area-constrained applications. , 2017, , .		27

#	ARTICLE	IF	CITATIONS
37	Exploring the Physical Channel of Diffusion-Based Molecular Communication by Simulation. , 2011, , .		26
38	Error Analysis of Programmable Metasurfaces for Beam Steering. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2020, 10, 62-74.	3.6	26
39	Engineer the Channel and Adapt to it: Enabling Wireless Intra-Chip Communication. IEEE Transactions on Communications, 2020, 68, 3247-3258.	7.8	25
40	Unveiling the potential of Graph Neural Networks for robust Intrusion Detection. Performance Evaluation Review, 2022, 49, 111-117.	0.6	22
41	A Novel Available Bandwidth Estimation and Tracking Algorithm. , 2008, , .		21
42	Energy Buffer Dimensioning Through Energy-Erlangs in Spatio-Temporal-Correlated Energy-Harvesting-Enabled Wireless Sensor Networks. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2014, 4, 301-312.	3.6	19
43	Study of hybrid and pure plasmonic terahertz antennas based on graphene guided-wave structures. Nano Communication Networks, 2017, 12, 34-42.	2.9	19
44	Scattering of terahertz radiation on a graphene-based nano-antenna. AIP Conference Proceedings, 2011, , .	0.4	18
45	Comparison of the resonant frequency in graphene and metallic nano-antennas. AIP Conference Proceedings, 2012, , .	0.4	18
46	Time- and Frequency-Domain Analysis of Molecular Absorption in Short-Range Terahertz Communications. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 350-353.	4.0	18
47	LISP: a southbound SDN protocol?. , 2015, 53, 201-207.		18
48	Characterization and modeling of multicast communication in cache-coherent manycore processors. Computers and Electrical Engineering, 2016, 51, 168-183.	4.8	15
49	Radiation Pattern Prediction for Metasurfaces: A Neural Network-Based Approach. Sensors, 2021, 21, 2765.	3.8	15
50	Multiwideband Terahertz Communications Via Tunable Graphene-Based Metasurfaces in 6G Networks: Graphene Enables Ultimate Multiwideband THz Wavefront Control. IEEE Vehicular Technology Magazine, 2022, 17, 16-25.	3.4	14
51	Large-scale measurement experiments of P2P-TV systems insights on fairness and locality. Signal Processing: Image Communication, 2011, 26, 327-338.	3.2	13
52	Scalability of the Channel Capacity in Graphene-enabled Wireless Communications to the Nanoscale. IEEE Transactions on Communications, 2014, , 1-1.	7.8	13
53	A MAC protocol for Reliable Broadcast Communications in Wireless Network-on-Chip. , 2016, , .		13
54	The graph neural networking challenge. Computer Communication Review, 2021, 51, 9-16.	1.8	13

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55	Physical channel characterization for medium-range nanonetworks using catalytic nanomotors. Nano Communication Networks, 2010, 1, 102-107.	2.9	12
56	On the feeding mechanisms for graphene-based THz plasmonic nano-antennas. , 2015, , .		12
57	Machine learning-based network modeling: An artificial neural network model vs a theoretical inspired model. , 2017, , .		12
58	Fault Tolerance in Programmable Metasurfaces: The Beam Steering Case. , 2019, , .		12
59	Measurement Based Analysis of the Handover in a WLAN MIPv6 Scenario. Lecture Notes in Computer Science, 2005, , 203-214.	1.3	11
60	A collaborative P2P scheme for NAT Traversal Server discovery based on topological information. Computer Networks, 2010, 54, 2071-2085.	5.1	11
61	Multicast On-chip Traffic Analysis Targeting Manycore NoC Design. , 2015, , .		11
62	Workload Characterization of Programmable Metasurfaces. , 2019, , .		11
63	IGNNITION: Bridging the Gap between Graph Neural Networks and Networking Systems. IEEE Network, 2021, 35, 171-177.	6.9	11
64	Quorum Sensing-enabled amplification for molecular nanonetworks. , 2012, , .		10
65	Evaluation of the Fast Handover Implementation for Mobile IPv6 in a Real Testbed. Lecture Notes in Computer Science, 2005, , 181-190.	1.3	10
66	Impact of transient CSMA/CA access delays on active bandwidth measurements. , 2009, , .		9
67	An evolutionary path for the evolved packet system. , 2015, 53, 184-191.		9
68	Programmable Overlays via OpenOverlayRouter. , 2017, 55, 32-38.		9
69	Measurement-based analysis of the performance of several wireless technologies. , 2008, , .		8
70	Packet Loss Estimation Using Distributed Adaptive Sampling. , 2008, , .		8
71	Cooperative signal amplification for molecular communication in nanonetworks. Wireless Networks, 2014, 20, 1611-1626.	3.0	8
72	Networking Challenges and Prospective Impact of Broadcast-Oriented Wireless Networks-on-Chip. , 2015, , .		8

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73	On signaling power: Communications over wireless energy. , 2016, , .		8
74	On the Scalability of Energy in Wireless RF Powered Internet of Things. IEEE Communications Letters, 2016, 20, 2554-2557.	4.1	8
75	Millimeter-Wave Propagation within a Computer Chip Package. , 2018, , .		8
76	MAC-oriented programmable terahertz PHY via graphene-based Yagi-Uda antennas. , 2018, , .		8
77	An Analytical Model for the LISP Cache Size. Lecture Notes in Computer Science, 2012, , 409-420.	1.3	8
78	Network Performance Assessment Using Adaptive Traffic Sampling. Lecture Notes in Computer Science, 2008, , 252-263.	1.3	8
79	Lcast: Software-defined inter-domain multicast. Computer Networks, 2014, 59, 153-170.	5.1	7
80	Leveraging Deliberately Generated Interferences for Multi-Sensor Wireless RF Power Transmission. , 2015, , .		7
81	Global State, Local Decisions: Decentralized NFV for ISPs via Enhanced SDN. , 2017, 55, 87-93.		7
82	Decentralized Trust in the Inter-Domain Routing Infrastructure. IEEE Access, 2019, 7, 166896-166905.	4.2	7
83	fP2Pâ€“HN: A P2P-based route optimization architecture for mobile IP-based community networks. Computer Networks, 2009, 53, 528-540.	5.1	6
84	Area Model and Dimensioning Guidelines of Multisource Energy Harvesting for Nanoâ€“Micro Interface. IEEE Internet of Things Journal, 2016, 3, 18-26.	8.7	6
85	Energy Harvesting Enabled Wireless Sensor Networks: Energy Model and Battery Dimensioning. , 2012, , .		6
86	Path-vector routing stability analysis. Performance Evaluation Review, 2011, 39, 22-24.	0.6	5
87	Evaluating the Feasibility of Wireless Networks-on-Chip Enabled by Graphene. , 2014, , .		4
88	An all-digital receiver for low power, low bit-rate applications using simultaneous wireless information and power transmission. , 2016, , .		4
89	ENERO: Efficient real-time WAN routing optimization with Deep Reinforcement Learning. Computer Networks, 2022, 214, 109166.	5.1	4
90	Implementing a BGP-free ISP core with LISP. , 2012, , .		3

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91	Graphene-enabled hybrid architectures for multiprocessors: Bridging nanophotonics and nanoscale wireless communication. , 2012, , .		3
92	Graphene-enabled Wireless Networks-on-Chip. , 2013, , .		3
93	Scalability-oriented multicast traffic characterization. , 2014, , .		3
94	Surveying of Pure and Hybrid Plasmonic Structures Based on Graphene for Terahertz Antenna. , 2016, , .		3
95	Results and Achievements of the ALLIANCE Project: New Network Solutions for 5G and Beyond. Applied Sciences (Switzerland), 2021, 11, 9130.	2.5	3
96	A Flexible and Distributed Home Agent Architecture for Mobile IPv6-Based Networks. Lecture Notes in Computer Science, 2007, , 333-344.	1.3	3
97	WiSync. ACM SIGPLAN Notices, 2016, 51, 3-17.	0.2	3
98	CoreCast: How core/edge separation can help improving inter-domain live streaming. Computer Networks, 2010, 54, 3388-3401.	5.1	2
99	fHA: A flexible and distributed Home Agent architecture for Mobile-IP based networks. Information Sciences, 2012, 211, 68-80.	6.9	2
100	Stability metrics and criteria for path-vector routing. , 2013, , .		2
101	SUNSET: Sustainable network infrastructure enabling the future Digital Society. , 2016, , .		2
102	An Analytical Model for Loc/ID Mappings Caches. IEEE/ACM Transactions on Networking, 2016, 24, 506-516.	3.8	2
103	Material-Dependencies of the THz emission from plasmonic graphene-based photoconductive antenna structures. , 2017, , .		2
104	Modeling and Exploiting the Relation Between Packet Losses and Hidden Traffic. IEEE Wireless Communications Letters, 2013, 2, 391-394.	5.0	1
105	Circuit area optimization in energy temporal sparse scenarios for multiple harvester powered systems. , 2014, , .		1
106	On the scalability of LISP mappings caches. Computer Networks, 2015, 91, 174-183.	5.1	1
107	Location and identity privacy for LISP-MN. , 2015, , .		1
108	A Vertical Methodology for the Design Space Exploration of Graphene-enabled Wireless Communications. , 2015, , .		1

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109	Fundamentals of Graphene-Enabled Wireless On-Chip Networking. Modeling and Optimization in Science and Technologies, 2017, , 293-317.	0.7	1
110	A Graphene Based Plasmonic Antenna Design for Communication in the THz Regime. , 2017, , .		1
111	FlowDT: A Flow-Aware Digital Twin for Computer Networks. , 2022, , .		1
112	Enhanced Fast Handovers Using a Multihomed Mobile IPv6 Node. Lecture Notes in Computer Science, 2006, , 152-163.	1.3	0
113	Mobility Agents: Avoiding the Signaling of Route Optimization on Large Servers. , 2007, , .		0
114	Scalability of Network Capacity in Nanonetworks Powered by Energy Harvesting. , 2015, , .		0
115	Pulse interspersing in static multipath chip environments for Impulse Radio communications. Nano Communication Networks, 2016, 9, 1-6.	2.9	0
116	Analysis of a Plasmonic Graphene Antenna for Microelectronic Applications. , 2018, , .		0
117	An Experimental Evaluation of Packet-Level Measurements of Hidden Traffic Load. Lecture Notes in Computer Science, 2010, , 315-326.	1.3	0
118	WiSync. Operating Systems Review (ACM), 2016, 50, 3-17.	1.9	0