Alberto Cabellos Aparicio

List of Publications by Year
in descending order

118	3,442	201674	182427
papers	citations	27 h-index	51 g-index

118	118	118	2569
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	FlowDT: A Flow-Aware Digital Twin for Computer Networks. , 2022, , .		1
3	Unveiling the potential of Graph Neural Networks for robust Intrusion Detection. Performance Evaluation Review, 2022, 49, 111-117.	0.6	22
4	ENERO: Efficient real-time WAN routing optimization with Deep Reinforcement Learning. Computer Networks, 2022, 214, 109166.	5.1	4
5	Radiation Pattern Prediction for Metasurfaces: A Neural Network-Based Approach. Sensors, 2021, 21, 2765.	3.8	15
6	The graph neural networking challenge. Computer Communication Review, 2021, 51, 9-16.	1.8	13
7	Results and Achievements of the ALLIANCE Project: New Network Solutions for 5G and Beyond. Applied Sciences (Switzerland), 2021, 11, 9130.	2.5	3
8	IGNNITION: Bridging the Gap between Graph Neural Networks and Networking Systems. IEEE Network, 2021, 35, 171-177.	6.9	11
9	Immersive Interconnected Virtual and Augmented Reality: A 5G and IoT Perspective. Journal of Network and Systems Management, 2020, 28, 796-826.	4.9	32
10	RouteNet: Leveraging Graph Neural Networks for Network Modeling and Optimization in SDN. IEEE Journal on Selected Areas in Communications, 2020, 38, 2260-2270.	14.0	160
11	Scalability Analysis of Programmable Metasurfaces for Beam Steering. IEEE Access, 2020, 8, 105320-105334.	4.2	36
12	Engineer the Channel and Adapt to it: Enabling Wireless Intra-Chip Communication. IEEE Transactions on Communications, 2020, 68, 3247-3258.	7.8	25
13	Toward Intelligent Metasurfaces: The Progress from Globally Tunable Metasurfaces to Softwareâ€Defined Metasurfaces with an Embedded Network of Controllers. Advanced Optical Materials, 2020, 8, 2000783.	7.3	145
14	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
15	Digital Metasurface Based on Graphene: An Application to Beam Steering in Terahertz Plasmonic Antennas. IEEE Nanotechnology Magazine, 2019, 18, 734-746.	2.0	81
16	Workload Characterization of Programmable Metasurfaces. , 2019, , .		11
17	Unveiling the potential of Graph Neural Networks for network modeling and optimization in SDN. , 2019, , .		124
18	Exploration of Intercell Wireless Millimeter-Wave Communication in the Landscape of Intelligent Metasurfaces. IEEE Access, 2019, 7, 122931-122948.	4.2	41

#	Article	IF	Citations
19	Fault Tolerance in Programmable Metasurfaces: The Beam Steering Case. , 2019, , .		12
20	Reprogrammable Graphene-based Metasurface Mirror with Adaptive Focal Point for THz Imaging. Scientific Reports, 2019, 9, 2868.	3.3	68
21	Routing in optical transport networks with deep reinforcement learning. Journal of Optical Communications and Networking, 2019, 11, 547.	4.8	43
22	Decentralized Trust in the Inter-Domain Routing Infrastructure. IEEE Access, 2019, 7, 166896-166905.	4.2	7
23	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
24	Millimeter-Wave Propagation within a Computer Chip Package. , 2018, , .		8
25	Analysis of a Plasmonic Graphene Antenna for Microelectronic Applications. , 2018, , .		0
26	Understanding the Modeling of Computer Network Delays using Neural Networks. , 2018, , .		39
27	Programmable Metasurfaces: State of the Art and Prospects. , 2018, , .		49
28	Medium Access Control in Wireless Network-on-Chip: A Context Analysis. , 2018, 56, 172-178.		52
29	Reconfigurable THz Plasmonic Antenna Based on Few-Layer Graphene with High Radiation Efficiency. Nanomaterials, 2018, 8, 577.	4.1	30
30	Intercell Wireless Communication in Software-defined Metasurfaces. , 2018, , .		28
31	MAC-oriented programmable terahertz PHY via graphene-based Yagi-Uda antennas. , 2018, , .		8
32	Global State, Local Decisions: Decentralized NFV for ISPs via Enhanced SDN. , 2017, 55, 87-93.		7
33	Computing and Communications for the Software-Defined Metamaterial Paradigm: A Context Analysis. IEEE Access, 2017, 5, 6225-6235.	4.2	62
34	Programmable Overlays via OpenOverlayRouter. , 2017, 55, 32-38.		9
35	Study of hybrid and pure plasmonic terahertz antennas based on graphene guided-wave structures. Nano Communication Networks, 2017, 12, 34-42.	2.9	19
36	Fundamentals of Graphene-Enabled Wireless On-Chip Networking. Modeling and Optimization in Science and Technologies, 2017, , 293-317.	0.7	1

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37	Graphene-Based terahertz antennas for area-constrained applications. , 2017, , .		27
38	Knowledge-Defined Networking. Computer Communication Review, 2017, 47, 2-10.	1.8	278
39	Machine learning-based network modeling: An artificial neural network model vs a theoretical inspired model. , 2017, , .		12
40	Material-Dependencies of the THz emission from plasmonic graphene-based photoconductive antenna structures. , 2017, , .		2
41	A Graphene Based Plasmonic Antenna Design for Communication in the THz Regime. , 2017, , .		1
42	An all-digital receiver for low power, low bit-rate applications using simultaneous wireless information and power transmission. , 2016, , .		4
43	On signaling power: Communications over wireless energy. , 2016, , .		8
44	SUNSET: Sustainable network infrastructure enabling the future Digital Society. , 2016, , .		2
45	On the Scalability of Energy in Wireless RF Powered Internet of Things. IEEE Communications Letters, 2016, 20, 2554-2557.	4.1	8
46	Pulse interspersing in static multipath chip environments for Impulse Radio communications. Nano Communication Networks, 2016, 9, 1-6.	2.9	0
47	Surveying of Pure and Hybrid Plasmonic Structures Based on Graphene for Terahertz Antenna. , 2016, , .		3
48	A MAC protocol for Reliable Broadcast Communications in Wireless Network-on-Chip. , 2016, , .		13
49	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
50	Characterization and modeling of multicast communication in cache-coherent manycore processors. Computers and Electrical Engineering, 2016, 51, 168-183.	4.8	15
51	Scalability of Broadcast Performance in Wireless Network-on-Chip. IEEE Transactions on Parallel and Distributed Systems, 2016, 27, 3631-3645.	5.6	38
52	An Analytical Model for Loc/ID Mappings Caches. IEEE/ACM Transactions on Networking, 2016, 24, 506-516.	3.8	2
53	WiSync. Operating Systems Review (ACM), 2016, 50, 3-17.	1.9	0
54	WiSync. ACM SIGPLAN Notices, 2016, 51, 3-17.	0.2	3

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55	On the scalability of LISP mappings caches. Computer Networks, 2015, 91, 174-183.	5.1	1
56	Networking Challenges and Prospective Impact of Broadcast-Oriented Wireless Networks-on-Chip. , 2015, , .		8
57	Scalability of Network Capacity in Nanonetworks Powered by Energy Harvesting. , 2015, , .		0
58	Leveraging Deliberately Generated Interferences for Multi-Sensor Wireless RF Power Transmission. , 2015, , .		7
59	Location and identity privacy for LISP-MN. , 2015, , .		1
60	Broadcast-Enabled Massive Multicore Architectures: A Wireless RF Approach. IEEE Micro, 2015, 35, 52-61.	1.8	33
61	On the feeding mechanisms for graphene-based THz plasmonic nano-antennas. , 2015, , .		12
62	Time-Domain Analysis of Graphene-Based Miniaturized Antennas for Ultra-Short-Range Impulse Radio Communications. IEEE Transactions on Communications, 2015, 63, 1470-1482.	7.8	51
63	Use of Terahertz Photoconductive Sources to Characterize Tunable Graphene RF Plasmonic Antennas. IEEE Nanotechnology Magazine, 2015, 14, 390-396.	2.0	56
64	Multicast On-chip Traffic Analysis Targeting Manycore NoC Design. , 2015, , .		11
65	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
66	A Vertical Methodology for the Design Space Exploration of Graphene-enabled Wireless Communications. , 2015, , .		1
67	An evolutionary path for the evolved packet system. , 2015, 53, 184-191.		9
68	LISP: a southbound SDN protocol?. , 2015, 53, 201-207.		18
69	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
70	Scalability-oriented multicast traffic characterization. , 2014, , .		3
71	Scalability of the Channel Capacity in Graphene-enabled Wireless Communications to the Nanoscale. IEEE Transactions on Communications, 2014, , 1-1.	7.8	13
72	Circuit area optimization in energy temporal sparse scenarios for multiple harvester powered systems. , 2014, , .		1

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73	Evaluating the Feasibility of Wireless Networks-on-Chip Enabled by Graphene. , 2014, , .		4
74	Lcast: Software-defined inter-domain multicast. Computer Networks, 2014, 59, 153-170.	5.1	7
75	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
76	Cooperative signal amplification for molecular communication in nanonetworks. Wireless Networks, 2014, 20, 1611-1626.	3.0	8
77	N3Sim: Simulation framework for diffusion-based molecular communication nanonetworks. Simulation Modelling Practice and Theory, 2014, 42, 210-222.	3.8	53
78	LISP-MN: Mobile Networking Through LISP. Wireless Personal Communications, 2013, 70, 253-266.	2.7	35
79	Graphene-enabled wireless communication for massive multicore architectures. , 2013, 51, 137-143.		128
80	Modeling and Exploiting the Relation Between Packet Losses and Hidden Traffic. IEEE Wireless Communications Letters, 2013, 2, 391-394.	5.0	1
81	DIRECT: A model for molecular communication nanonetworks based on discrete entities. Nano Communication Networks, 2013, 4, 181-188.	2.9	66
82	Detection Techniques for Diffusion-based Molecular Communication. IEEE Journal on Selected Areas in Communications, 2013, 31, 726-734.	14.0	147
83	Graphene-enabled Wireless Networks-on-Chip. , 2013, , .		3
84	Stability metrics and criteria for path-vector routing. , 2013, , .		2
85	Comparison of the resonant frequency in graphene and metallic nano-antennas. AIP Conference Proceedings, 2012, , .	0.4	18
86	Quorum Sensing-enabled amplification for molecular nanonetworks. , 2012, , .		10
87	Implementing a BGP-free ISP core with LISP. , 2012, , .		3
88	Networking challenges and principles in diffusion-based molecular communication. IEEE Wireless Communications, 2012, 19, 36-41.	9.0	37
89	Characterization of graphene-based nano-antennas in the terahertz band. , 2012, , .		46
90	Graphene-enabled hybrid architectures for multiprocessors: Bridging nanophotonics and nanoscale wireless communication. , 2012, , .		3

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91	Graphene-based nano-patch antenna for terahertz radiation. Photonics and Nanostructures - Fundamentals and Applications, 2012, 10, 353-358.	2.0	331
92	fHA: A flexible and distributed Home Agent architecture for Mobile-IP based networks. Information Sciences, 2012, 211, 68-80.	6.9	2
93	An Analytical Model for the LISP Cache Size. Lecture Notes in Computer Science, 2012, , 409-420.	1.3	8
94	Energy Harvesting Enabled Wireless Sensor Networks: Energy Model and Battery Dimensioning. , 2012, , .		6
95	Simulation-based evaluation of the diffusion-based physical channel in molecular nanonetworks. , 2011, , .		45
96	Diffusion-based physical channel identification in molecular nanonetworks. Nano Communication Networks, 2011, 2, 196-204.	2.9	124
97	Exploring the Physical Channel of Diffusion-Based Molecular Communication by Simulation. , 2011, , .		26
98	Large-scale measurement experiments of P2P-TV systems insights on fairness and locality. Signal Processing: Image Communication, 2011, 26, 327-338.	3.2	13
99	Physical channel characterization for medium-range nanonetworks using flagellated bacteria. Computer Networks, 2011, 55, 779-791.	5.1	95
100	Analysis of the impact of sampling on NetFlow traffic classification. Computer Networks, 2011, 55, 1083-1099.	5.1	76
101	Scattering of terahertz radiation on a graphene-based nano-antenna. AIP Conference Proceedings, 2011, , .	0.4	18
102	Path-vector routing stability analysis. Performance Evaluation Review, 2011, 39, 22-24.	0.6	5
103	Physical channel characterization for medium-range nanonetworks using catalytic nanomotors. Nano Communication Networks, 2010, 1, 102-107.	2.9	12
104	A collaborative P2P scheme for NAT Traversal Server discovery based on topological information. Computer Networks, 2010, 54, 2071-2085.	5.1	11
105	CoreCast: How core/edge separation can help improving inter-domain live streaming. Computer Networks, 2010, 54, 3388-3401.	5.1	2
106	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
107	An Experimental Evaluation of Packet-Level Measurements of Hidden Traffic Load. Lecture Notes in Computer Science, 2010, , 315-326.	1.3	0
108	Impact of transient CSMA/CA access delays on active bandwidth measurements. , 2009, , .		9

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109	fP2Pâ€“HN: A P2P-based route optimization architecture for mobile IP-based community networks. Computer Networks, 2009, 53, 528-540.	5.1	6
110	A Novel Available Bandwidth Estimation and Tracking Algorithm. , 2008, , .		21
111	Measurement-based analysis of the performance of several wireless technologies. , 2008, , .		8
112	Packet Loss Estimation Using Distributed Adaptive Sampling. , 2008, , .		8
113	Network Performance Assessment Using Adaptive Traffic Sampling. Lecture Notes in Computer Science, 2008, , 252-263.	1.3	8
114	Mobility Agents: Avoiding the Signaling of Route Optimization on Large Servers. , 2007, , .		0
115	A Flexible and Distributed Home Agent Architecture for Mobile IPv6-Based Networks. Lecture Notes in Computer Science, 2007, , 333-344.	1.3	3
116	Enhanced Fast Handovers Using a Multihomed Mobile IPv6 Node. Lecture Notes in Computer Science, 2006, , 152-163.	1.3	0
117	Measurement Based Analysis of the Handover in a WLAN MIPv6 Scenario. Lecture Notes in Computer Science, 2005, , 203-214.	1.3	11
118	Evaluation of the Fast Handover Implementation for Mobile IPv6 in a Real Testbed. Lecture Notes in Computer Science, 2005, , 181-190.	1.3	10