

# Xavier Costa-PÃ©rez

## List of Publications by Year in descending order

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Version: 2024-02-01

105  
papers

4,835  
citations

218677

26  
h-index

161849

54  
g-index

108  
all docs

108  
docs citations

108  
times ranked

3603  
citing authors

#	ARTICLE	IF	CITATIONS
1	Stochastic Properties of the Random Waypoint Mobility Model. <i>Wireless Networks</i> , 2004, 10, 555-567.	3.0	640
2	From network sharing to multi-tenancy: The 5G network slice broker. , 2016, 54, 32-39.		399
3	5G-Crosshaul Network Slicing: Enabling Multi-Tenancy in Mobile Transport Networks. <i>IEEE Communications Magazine</i> , 2017, 55, 128-137.	6.1	304
4	Radio access network virtualization for future mobile carrier networks. , 2013, 51, 27-35.		228
5	Mobile traffic forecasting for maximizing 5G network slicing resource utilization. , 2017, , .		197
6	Xhaul: toward an integrated fronthaul/backhaul architecture in 5G networks. <i>IEEE Wireless Communications</i> , 2015, 22, 32-40.	9.0	132
7	Optimising 5G infrastructure markets: The business of network slicing. , 2017, , .		129
8	5G-TRANSFORMER: Slicing and Orchestrating Transport Networks for Industry Verticals. <i>IEEE Communications Magazine</i> , 2018, 56, 78-84.	6.1	126
9	Multi-Tenant Radio Access Network Slicing: Statistical Multiplexing of Spatial Loads. <i>IEEE/ACM Transactions on Networking</i> , 2017, 25, 3044-3058.	3.8	119
10	DeepCog: Cognitive Network Management in Sliced 5G Networks with Deep Learning. , 2019, , .		116
11	Network Slicing for Guaranteed Rate Services: Admission Control and Resource Allocation Games. <i>IEEE Transactions on Wireless Communications</i> , 2018, 17, 6419-6432.	9.2	105
12	5G-Crosshaul: An SDN/NFV Integrated Fronthaul/Backhaul Transport Network Architecture. <i>IEEE Wireless Communications</i> , 2017, 24, 38-45.	9.0	93
13	Network Slicing Games: Enabling Customization in Multi-Tenant Mobile Networks. <i>IEEE/ACM Transactions on Networking</i> , 2019, 27, 662-675.	3.8	86
14	RL-NSB: Reinforcement Learning-Based 5G Network Slice Broker. <i>IEEE/ACM Transactions on Networking</i> , 2019, 27, 1543-1557.	3.8	80
15	A Machine Learning Approach to 5G Infrastructure Market Optimization. <i>IEEE Transactions on Mobile Computing</i> , 2020, 19, 498-512.	5.8	80
16	O-RAN: Disrupting the Virtualized RAN Ecosystem. <i>IEEE Communications Standards Magazine</i> , 2021, 5, 96-103.	4.9	78
17	FluidRAN: Optimized vRAN/MEC Orchestration. , 2018, , .		75
18	Network slicing games: Enabling customization in multi-tenant networks. , 2017, , .		74

#	ARTICLE	IF	CITATIONS
19	DeepCog: Optimizing Resource Provisioning in Network Slicing With AI-Based Capacity Forecasting. IEEE Journal on Selected Areas in Communications, 2020, 38, 361-376.	14.0	72
20	Overbooking network slices through yield-driven end-to-end orchestration. , 2018, , .		70
21	How Should I Slice My Network?. , 2018, , .		60
22	IEEE 802.11E QoS and power saving features overview and analysis of combined performance [Accepted from Open Call]. IEEE Wireless Communications, 2010, 17, 88-96.	9.0	56
23	5Growth: An End-to-End Service Platform for Automated Deployment and Management of Vertical Services over 5G Networks. IEEE Communications Magazine, 2021, 59, 84-90.	6.1	54
24	RISMA: Reconfigurable Intelligent Surfaces Enabling Beamforming for IoT Massive Access. IEEE Journal on Selected Areas in Communications, 2021, 39, 1072-1085.	14.0	53
25	Joint Optimization of Edge Computing Architectures and Radio Access Networks. IEEE Journal on Selected Areas in Communications, 2018, 36, 2433-2443.	14.0	51
26	vrAln. , 2019, , .		51
27	WizHaul: On the Centralization Degree of Cloud RAN Next Generation Fronthaul. IEEE Transactions on Mobile Computing, 2018, 17, 2452-2466.	5.8	49
28	z-TORCH: An Automated NFV Orchestration and Monitoring Solution. IEEE Transactions on Network and Service Management, 2018, 15, 1292-1306.	4.9	47
29	Resource Sharing Efficiency in Network Slicing. IEEE Transactions on Network and Service Management, 2019, 16, 909-923.	4.9	46
30	Designing energy efficient access points with Wi-Fi Direct. Computer Networks, 2011, 55, 2838-2855.	5.1	44
31	SARDO: An Automated Search-and-Rescue Drone-Based Solution for Victims Localization. IEEE Transactions on Mobile Computing, 2022, 21, 3312-3325.	5.8	42
32	A simulation study on the performance of Mobile IPv6 in a WLAN-based cellular network. Computer Networks, 2002, 40, 191-204.	5.1	39
33	Benchmarking open source NFV MANO systems: OSM and ONAP. Computer Communications, 2020, 161, 86-98.	5.1	36
34	Slice as a Service (SlaaS) Optimal IoT Slice Resources Orchestration. , 2017, , .		35
35	NSBchain: A Secure Blockchain Framework for Network Slicing Brokerage. , 2020, , .		35
36	A Utility-Driven Multi-Queue Admission Control Solution for Network Slicing. , 2019, , .		34

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37	MANOaaS: A Multi-Tenant NFV MANO for 5G Network Slices. IEEE Communications Magazine, 2019, 57, 103-109.	6.1	34
38	Leveraging 802.11n frame aggregation to enhance QoS and power consumption in Wi-Fi networks. Computer Networks, 2012, 56, 2896-2911.	5.1	27
39	Service differentiation extensions for elastic and real-time traffic in 802.11 wireless LAN. , 0, , .		26
40	A performance study of hierarchical mobile IPv6 from a system perspective. , 0, , .		26
41	Massive Machine-Type Communications. IEEE Network, 2017, 31, 6-7.	6.9	26
42	Toward the network of the future: From enabling technologies to 5G concepts. Transactions on Emerging Telecommunications Technologies, 2017, 28, e3205.	3.9	25
43	Resource Allocation for Network Slicing in Mobile Networks. IEEE Access, 2020, 8, 214696-214706.	4.2	25
44	5G Crosshaul: An SDN/NFV control and data plane architecture for the 5G integrated Fronthaul/Backhaul. Transactions on Emerging Telecommunications Technologies, 2016, 27, 1196-1205.	3.9	24
45	CARES: Computation-Aware Scheduling in Virtualized Radio Access Networks. IEEE Transactions on Wireless Communications, 2018, 17, 7993-8006.	9.2	24
46	RIS of Flight: RIS-Empowered UAV Communications for Robust and Reliable Air-to-Ground Networks. IEEE Open Journal of the Communications Society, 2021, 2, 1616-1629.	6.9	24
47	Adversarial Attacks Against Deep Learning-Based Network Intrusion Detection Systems and Defense Mechanisms. IEEE/ACM Transactions on Networking, 2022, 30, 1294-1311.	3.8	24
48	Analysis of the integration of IEEE 802.11E capabilities in battery limited mobile devices. IEEE Wireless Communications, 2005, 12, 26-32.	9.0	23
49	An Optimal Deployment Framework for Multi-Cloud Virtualized Radio Access Networks. IEEE Transactions on Wireless Communications, 2021, 20, 2251-2265.	9.2	23
50	ORLA/OLAA: Orthogonal Coexistence of LAA and WiFi in Unlicensed Spectrum. IEEE/ACM Transactions on Networking, 2018, 26, 2665-2678.	3.8	22
51	Multiservice-Based Network Slicing Orchestration With Impatient Tenants. IEEE Transactions on Wireless Communications, 2020, 19, 5010-5024.	9.2	22
52	RMSC: A Cell Slicing Controller for Virtualized Multi-Tenant Mobile Networks. , 2015, , .		21
53	Multi-Domain Solutions for the Deployment of Private 5G Networks. IEEE Access, 2021, 9, 106865-106884.	4.2	21
54	AI-Based Autonomous Control, Management, and Orchestration in 5G: From Standards to Algorithms. IEEE Network, 2020, 34, 14-20.	6.9	20

#	ARTICLE	IF	CITATIONS
55	Latest trends in telecommunication standards. Computer Communication Review, 2013, 43, 64-71.	1.8	19
56	OVNES: Demonstrating 5G network slicing overbooking on real deployments. , 2018, , .		18
57	LACO: A Latency-Driven Network Slicing Orchestration in Beyond-5G Networks. IEEE Transactions on Wireless Communications, 2021, 20, 667-682.	9.2	18
58	Tiki-Taka. , 2020, , .		17
59	A performance study of fast handovers for mobile IPv6. , 0, , .		16
60	Nuberu. , 2021, , .		16
61	PAPIR: Practical RIS-aided Localization via Statistical User Information. , 2021, , .		16
62	AU-APSD: Adaptive IEEE 802.11e Unscheduled Automatic Power Save Delivery. , 2006, , .		15
63	On distributed power saving mechanisms of wireless LANs 802.11e U-APSD vs 802.11 power save mode. Computer Networks, 2007, 51, 2326-2344.	5.1	15
64	An adaptive solution for Wireless LAN distributed power saving modes. Computer Networks, 2009, 53, 3011-3030.	5.1	15
65	Bayesian Online Learning for Energy-Aware Resource Orchestration in Virtualized RANs. , 2021, , .		15
66	MARISA: A Self-configuring Metasurfaces Absorption and Reflection Solution Towards 6G. , 2022, , .		15
67	On the Challenges for the Maximization of Radio Resources Usage in WiMAX Networks. , 2008, , .		14
68	LaSR: A Supple Multi-Connectivity Scheduler for Multi-RAT OFDMA Systems. IEEE Transactions on Mobile Computing, 2020, 19, 624-639.	5.8	14
69	ONETS: Online Network Slice Broker From Theory to Practice. IEEE Transactions on Wireless Communications, 2022, 21, 121-134.	9.2	14
70	APSM: bounding the downlink delay for 802.11 power save mode. , 0, , .		13
71	Asymmetric Uplink-Downlink Assignment for Energy-Efficient Mobile Communication Systems. , 2012, , .		13
72	Novel Resource and Energy Management for 5G integrated backhaul/fronthaul (5G-Crosshaul). , 2017, , .		13

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73	Integrating Fronthaul and Backhaul Networks: Transport Challenges and Feasibility Results. IEEE Transactions on Mobile Computing, 2021, 20, 533-549.	5.8	13
74	vrAln: Deep Learning based Orchestration for Computing and Radio Resources in vRANs. IEEE Transactions on Mobile Computing, 2021, , 1-1.	5.8	13
75	TD-LTE virtual cells: An SDN architecture for user-centric multi-eNB elastic resource management. Computer Communications, 2016, 83, 1-15.	5.1	12
76	A capacity broker architecture and framework for multi-tenant support in LTE-A networks. , 2016, , .		11
77	STORNS: Stochastic Radio Access Network Slicing. , 2019, , .		10
78	Automated Service Provisioning and Hierarchical SLA Management in 5G Systems. IEEE Transactions on Network and Service Management, 2021, 18, 4669-4684.	4.9	10
79	EdgeBOL. , 2021, , .		10
80	Enabling Vertical Industries Adoption of 5G Technologies: A Cartography of Evolving Solutions. , 2018, , .		9
81	Automating Vertical Services Deployments over the 5GT Platform. IEEE Communications Magazine, 2020, 58, 44-50.	6.1	9
82	Service-oriented resource virtualization for evolving TDD networks towards 5G. , 2016, , .		8
83	Orchestration of Crosshaul slices from federated administrative domains. , 2016, , .		6
84	Leading innovations towards 5G: Europe's perspective in 5G infrastructure public-private partnership (5G-PPP)., 2017, , .		6
85	\$\alpha\$-OMC: Cost-Aware Deep Learning for Mobile Network Resource Orchestration. , 2019, , .		6
86	A Protocol Enhancement for IEEE 802.11 Distributed Power Saving Mechanisms No Data Acknowledgement. , 2007, , .		5
87	Overbooking Network Slices End-to-End. , 2018, , .		5
88	On spectrum and infrastructure sharing in multi-operator cellular networks. , 2016, , .		5
89	System-Level Optimization in Poisson Cellular Networks: An Approach Based on the Generalized Benders Decomposition. IEEE Wireless Communications Letters, 2020, 9, 1773-1777.	5.0	4
90	Ë€-ROAD: a Learn-as-You-Go Framework for On-Demand Emergency Slices in V2X Scenarios. , 2021, , .		4

#	ARTICLE	IF	CITATIONS
91	Demonstrating a Bayesian Online Learning for Energy-Aware Resource Orchestration in vRANs. , 2021, , .		4
92	Utilization of the IEEE802.11 power save mode with IP paging. , 0, , .		3
93	E-Diophantine: An Admission Control Algorithm for WiMAX Networks. , 2010, , .		3
94	SOLOR: Self-Optimizing WLANs With Legacy-Compatible Opportunistic Relays. IEEE/ACM Transactions on Networking, 2015, 23, 1202-1215.	3.8	3
95	RAVA " Resource aware VNF agnostic NFV orchestration method for virtualized networks. , 2016, , .		3
96	Sharing of crosshaul networks via a multi-domain exchange environment for 5G services. , 2017, , .		3
97	Network Slicing for 5G Networks. , 2018, , 327-370.		3
98	ARENA: A Data-Driven Radio Access Networks Analysis of Football Events. IEEE Transactions on Network and Service Management, 2020, 17, 2634-2647.	4.9	3
99	Testbeds for Future Wireless Networks. Wireless Communications and Mobile Computing, 2019, 2019, 1-2.	1.2	2
100	On centralized schedulers for 802.11e WLANs distribution versus grouping of resources allocation. Wireless Communications and Mobile Computing, 2012, 12, 1175-1190.	1.2	1
101	RIA-ICCS: Intercell coordinated scheduling exploiting application Reservation Information. , 2013, , .		1
102	E-Diophantine estimating peak allocated capacity in wireless networks. Computer Communications, 2015, 60, 1-11.	5.1	1
103	A service-tailored TDD cell-less architecture. , 2016, , .		1
104	Latency-driven Network Slices Orchestration. , 2019, , .		1
105	On the benefits of time-varying routing in realistic mobile backhaul networks. , 2015, , .		0