Christian Esteve Rothenberg

List of Publications by Year
in descending order

117 papers	6,128 citations	489802 18 h-index	286692 43 g-index
118 all docs	118 docs citations	118 times ranked	5623 citing authors

#	ARTICLE	IF	CITATIONS
1	CNS-AOM: Design, Implementation and Integration of an Architecture for Orchestration and Management of Cloud-Network Slices. Journal of Network and Systems Management, 2022, 30, 1.	3.3	1
2	Run-Time Adaptive In-Kernel BPF/XDP Solution for 5G UPF. Electronics (Switzerland), 2022, 11, 1022.	1.8	2
3	Machine learning for next‐generation intelligent transportation systems: A survey. Transactions on Emerging Telecommunications Technologies, 2022, 33, .	2.6	33
4	Demonstration of ML-Assisted Soft-Failure Localization Based on Network Digital Twins. Journal of Lightwave Technology, 2022, 40, 4514-4520.	2.7	17
5	Machine Learning-Assisted Closed-Control Loops for Beyond 5G Multi-Domain Zero-Touch Networks. Journal of Network and Systems Management, 2022, 30, 1.	3.3	19
6	Multipath MMT-based approach for streaming high quality video over multiple wireless access networks. Computer Networks, 2021, 185, 107638.	3.2	6
7	Dynamic Controller Assignment in Software Defined Internet of Vehicles Through Multi-Agent Deep Reinforcement Learning. IEEE Transactions on Network and Service Management, 2021, 18, 585-596.	3.2	26
8	The NECOS Approach to End-to-End Cloud-Network Slicing as a Service. IEEE Communications Magazine, 2021, 59, 91-97.	4.9	16
9	Near-Optimal Probing Planning for In-Band Network Telemetry. IEEE Communications Letters, 2021, 25, 1630-1634.	2.5	12
10	Message from the NetSoft 2021 Chairs. , 2021, , .		0
11	Machine-learning-based soft-failure localization with partial software-defined networking telemetry. Journal of Optical Communications and Networking, 2021, 13, E122.	3.3	23
12	Machine Learning Approach to Estimate Video QoE of Encrypted DASH Traffic in 5G Networks. , 2021, , .		6
13	An Application-Driven Framework for Intelligent Transportation Systems Using 5G Network Slicing. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 5247-5260.	4.7	17
14	Harnessing UAVs for Fair 5G Bandwidth Allocation in Vehicular Communication via Deep Reinforcement Learning. IEEE Transactions on Network and Service Management, 2021, 18, 4063-4074.	3.2	12
15	Demonstration of Machine-Intelligent Soft-Failure Localization Using SDN Telemetry. , 2021, , .		2
16	An In-Kernel Solution Based on XDP for 5G UPF: Design, Prototype and Performance Evaluation. , 2021, , .		5
17	CLARA: Closed Loop-based Zero-touch Network Management Framework. , 2021, , .		3
18	dh-aes-p4: On-premise encryption and in-band key-exchange in P4 fully programmable data planes. , 2021, , .		3

#	ARTICLE	IF	CITATIONS
19	The pandora of network slicing: A multicriteria analysis. Transactions on Emerging Telecommunications Technologies, 2020, 31, e3651.	2.6	7
20	5G-V2X Communications and Networking for Connected and Autonomous Vehicles. Future Internet, 2020, 12, 116.	2.4	2
21	Towards Low Latency Industrial Robot Control in Programmable Data Planes. , 2020, , .		20
22	ANI: Abstracted Network Inventory for Streamlined Service Placement in Distributed Clouds. , 2020, , .		4
23	Intent-based Control Loop for DASH Video Service Assurance using ML-based Edge QoE Estimation. , 2020, , .		12
24	The road to BOFUSS: The basic OpenFlow userspace software switch. Journal of Network and Computer Applications, 2020, 165, 102685.	5.8	23
25	Towards Deep Network & Application Integration. , 2020, , .		7
26	Soft Failure Localization Using Machine Learning with SDN-based Network-wide Telemetry. , 2020, , .		15
27	Multi-Domain Information Exposure using ALTO. , 2020, , .		1
28	A Supervised Machine Learning Approach for DASH Video QoE Prediction in 5G Networks. , 2020, , .		9
29	DASH QoE Performance Evaluation Framework with 5G Datasets. , 2020, , .		5
30	Policy Controlled Multi-domain cloud-network Slice Orchestration Strategy based on Reinforcement Learning. , 2020, , .		3
31	MUDED: Integrating Networks with Applications through Multi-Domain Exposure and Discovery Mechanisms. , 2020, , .		2
32	Automated Selection of Inter-Packet Time Models Through Information Criteria. IEEE Networking Letters, 2019, 1, 56-59.	1.5	0
33	Enhancing the 3GPP V2X Architecture with Information-Centric Networking. Future Internet, 2019, 11, 199.	2.4	19
34	Supporting multi-domain Use cases with ALTO. , 2019, , .		3
35	Network Service Orchestration: A survey. Computer Communications, 2019, 142-143, 69-94.	3.1	79
36	Adaptive and Scalable Communication Networks [Scanning the Issue]. Proceedings of the IEEE, 2019, 107, 635-638.	16.4	1

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37	Towards A Marketplace for Multi-domain Cloud Network Slicing: Use Cases. , 2019, , .		4
38	Offloading Virtual Evolved Packet Gateway User Plane Functions to a Programmable ASIC. , 2019, , .		15
39	In-network P4-based Low Latency Robot Arm Control. , 2019, , .		4
40	A Novel Scheduling Strategy for MMT-Based Multipath Video Streaming. , 2018, , .		7
41	Scaling SDM Optical Networks Using Full-Spectrum Spatial Switching. Journal of Optical Communications and Networking, 2018, 10, 991.	3.3	18
42	Automated VNF Testing with Gym: A Benchmarking Use Case. , 2018, , .		3
43	Blockchain-Based Decentralized Applications for Multiple Administrative Domain Networking. IEEE Communications Standards Magazine, 2018, 2, 29-37.	3.6	51
44	Slicing on the Road: Enabling the Automotive Vertical through 5G Network Softwarization. Sensors, 2018, 18, 4435.	2.1	32
45	Policy Injection. , 2018, , .		4
46	BB-Gen. , 2018, , .		7
47	NECOS Project: Towards Lightweight Slicing of Cloud Federated Infrastructures. , 2018, , .		29
48	A Load Balancing Method based on Artificial Neural Networks for Knowledge-defined Data Center Networking. , 2018, , .		11
49	Towards 5G Network Slicing for the V2X Ecosystem. , 2018, , .		45
50	Slicing and Allocation of Transformable Resources for the Deployment of Multiple Virtualized Infrastructure Managers (VIMs). , 2018, , .		14
51	Toward a Sweet Spot of Data Plane Programmability, Portability, and Performance: On the Scalability of Multi-Architecture P4 Pipelines. IEEE Journal on Selected Areas in Communications, 2018, 36, 2603-2611.	9.7	5
52	Blockchain-based Decentralized Applications meet Multi-Administrative Domain Networking. , 2018, , .		10
53	Cooperative mobile edge computing system for VANET-based software-defined content delivery. Computers and Electrical Engineering, 2018, 71, 388-397.	3.0	29
54	From Theory to Experimental Evaluation: Resource Management in Software-Defined Vehicular Networks. IEEE Access, 2017, 5, 3069-3076.	2.6	77

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55	How Far Can We Go? Towards Realistic Software-Defined Wireless Networking Experiments. Computer Journal, 2017, 60, 1458-1471.	1.5	11
56	Take Your VNF to the Gym: A Testing Framework for Automated NFV Performance Benchmarking. , 2017, 55, 110-117.		28
57	Scaling optical networks using full-spectrum spatial switching. , 2017, , .		0
58	MACSAD: High performance dataplane applications on the move. , 2017, , .		5
59	Dynamically distributed network control for message dissemination in ITS. , 2017, , .		11
60	AR2C2: Actively replicated controllers for SDN resilient control plane. , 2016, , .		10
61	Guest Editors' Introduction: Special Issue on Management of Softwarized Networks. IEEE Transactions on Network and Service Management, 2016, 13, 362-365.	3.2	8
62	NOn: Network function virtualization ontology towards semantic service implementation. , 2016, , .		2
63	Mininet-WiFi. , 2016, , .		27
64	MACSAD. , 2016, , .		6
65	Dissecting the Largest National Ecosystem of Public Internet eXchange Points in Brazil. Lecture Notes in Computer Science, 2016, , 333-345.	1.0	7
66	CCNrel: Leveraging relations among objects to improve the performance of CCN. , 2015, , .		3
67	Towards Semantic Network Models via Graph Databases for SDN Applications. , 2015, , .		3
68	VBaaS: VNF Benchmark-as-a-Service. , 2015, , .		13
69	Message from Technical Program Co-Chairs. , 2015, , .		0
70	Resilient Strategies to SDN: An Approach Focused on Actively Replicated Controllers. , 2015, , .		7
71	Anatomy of Public Internet eXchange Points Ecosystem in Brazil. , 2015, , .		1
72	Perspectives on software-defined networks: interviews with five leading scientists from the networking community. Journal of Internet Services and Applications, 2015, 6, .	1.6	7

#	Article	IF	Citations
73	Mininet-WiFi: Emulating software-defined wireless networks. , 2015, , .		235
74	High speed scientific data transfers using software defined networking. , 2015, , .		4
75	Providing Optical Network as a Service with Policy-based Transport SDN. Journal of Network and Systems Management, 2015, 23, 360-373.	3.3	6
76	MD2-NFV: The case for multi-domain distributed network functions virtualization. , 2015, , .		21
77	Software-Defined Networking: A Comprehensive Survey. Proceedings of the IEEE, 2015, 103, 14-76.	16.4	3,441
78	Cardigan: SDN distributed routing fabric going live at an Internet exchange. , 2014, , .		21
79	Virtual Data Center Networks Embedded as a Service Using Software Defined Networks. , 2014, , .		1
80	Employment of IA-RWA in Virtual Optical Networks Using a PCE Implemented as a SDN Application. , 2014, , .		2
81	ASN-FWD: Shrinking the IPv4 Share on the Forwarding Information Base. , 2014, , .		0
82	When Open Source Meets Network Control Planes. Computer, 2014, 47, 46-54.	1.2	19
83	High fidelity content-centric experiments with Mini-CCNx. , 2014, , .		1
84	Virtual data center networks embedding through Software Defined Networking. , 2014, , .		9
85	An optical SDN Controller for Transport Network virtualization and autonomic operation. , 2013, , .		11
86	Data Center Fault-Tolerant Routing and Forwarding: An Approach Based on Encoded Paths. , 2013, , .		7
87	Mini-CCNx. , 2013, , .		17
88	Reproducing real NDN experiments using mini-CCNx. , 2013, , .		5
89	Cardigan. , 2013, , .		25
90	SlickFlow: Resilient source routing in Data Center Networks unlocked by OpenFlow. , 2013, , .		53

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91	Experimental testbed of reconfigurable flexgrid optical network with virtualized GMPLS control plane and autonomic controls towards SDN. , 2013, , .		7
92	An experimental evaluation of lightweight virtualization for software-defined routing platform. , 2012, , .		1
93	Theory and Practice of Bloom Filters for Distributed Systems. IEEE Communications Surveys and Tutorials, 2012, 14, 131-155.	24.8	377
94	Revisiting routing control platforms with the eyes and muscles of software-defined networking. , 2012, , .		114
95	BloomCasting: Security in Bloom Filter Based Multicast. Lecture Notes in Computer Science, 2012, , 1-16.	1.0	9
96	Virtual routers as a service. , 2011, , .		88
97	In-packet Bloom filters: Design and networking applications. Computer Networks, 2011, 55, 1364-1378.	3.2	30
98	Forwarding anomalies in Bloom filter-based multicast. , 2011, , .		58
99	Experimentally-Driven Research in Publish/Subscribe Information-Centric Inter-Networking. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2011, , 469-485.	0.2	6
100	QuagFlow. Computer Communication Review, 2010, 40, 441-442.	1.5	20
101	In-packet Bloom filter based data center networking with distributed OpenFlow controllers. , 2010, , .		21
102	The deletable Bloom filter: a new member of the Bloom family. IEEE Communications Letters, 2010, 14, 557-559.	2.5	50
103	QuagFlow. , 2010, , .		18
104	Scenarios of Evolution for a Future Internet Architecture. Studies in Computational Intelligence, 2010, , 57-77.	0.7	1
105	New Generation Internet Architectures: Recent and Ongoing Projects. Studies in Computational Intelligence, 2010, , 121-140.	0.7	1
106	LIPSIN. Computer Communication Review, 2009, 39, 195-206.	1.5	127
107	LIPSIN. , 2009, , .		267
108	Self-Routing Denial-of-Service Resistant Capabilities Using In-packet Bloom Filters. , 2009, , .		32

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109	Exploring the Pub/Sub Routing & Forwarding Space. , 2009, , .		13
110	A Review of Policy-Based Resource and Admission Control Functions in Evolving Access and Next Generation Networks. Journal of Network and Systems Management, 2008, 16, 14-45.	3.3	29
111	SIP over an Identifier/Locator Splitted Next Generation Internet Architecture. International Conference on Advanced Communication Technology, 2008, , .	0.0	2
112	Towards a new generation of information-oriented internetworking architectures. , 2008, , .		32
113	Towards Carrier Grade Wireless Mesh Networks for Broadband Access. , 2006, , .		7
114	End-to-End Service Monitoring for Zero-Touch Networks. Journal of ICT Standardization, 0, , .	0.6	5
115	Multi-domain Orchestration leveraging the Application-Layer Traffic Optimization Protocol. , 0, , .		0
116	Policy-Driven Network Traffic Rerouting Through Intent-Based Control Loops. , 0, , .		3
117	Análise do Comportamento de Aplicações Paralelas em Ambientes de Computação de Alto Desempenho Virtualizados. , 0, , .		0