

Frank H P Fitzek

List of Publications by Year in descending order

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93
papers

1,752
citations

430874

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95
docs citations

95
times ranked

1027
citing authors

#	ARTICLE	IF	CITATIONS
1	An Analytical Study on Functional Split in Martian 3-D Networks. IEEE Transactions on Aerospace and Electronic Systems, 2023, 59, 745-753.	4.7	3
2	MSN: A Playground Framework for Design and Evaluation of MicroServices-Based sdN Controller. Journal of Network and Systems Management, 2022, 30, 1.	4.9	7
3	Demonstrating Cloud-Based Services for UDNs: Content Distribution Case Study. , 2022, , 437-466.		0
4	X-MAN: A Non-Intrusive Power Manager for Energy-Adaptive Cloud-Native Network Functions. IEEE Transactions on Network and Service Management, 2022, 19, 1017-1035.	4.9	3
5	Packet Header Compression: A Principle-Based Survey of Standards and Recent Research Studies. IEEE Communications Surveys and Tutorials, 2022, 24, 698-740.	39.4	11
6	Offloading Robot Control with 5G. , 2022, , .		5
7	Healing Hands: The Tactile Internet in Future Tele-Healthcare. Sensors, 2022, 22, 1404.	3.8	8
8	A Novel Architecture for Future Classical-Quantum Communication Networks. Wireless Communications and Mobile Computing, 2022, 2022, 1-18.	1.2	5
9	FSW: Fulcrum Sliding Window Coding for Low-Latency Communication. IEEE Access, 2022, 10, 54276-54290.	4.2	16
10	End-to-end performance assessment of a 3D network for 6G connectivity on Mars surface. Computer Networks, 2022, 213, 109079.	5.1	7
11	Joint Application of Sliding Window and Full-Vector RLNC for Vehicular Platooning. , 2021, , .		2
12	Intelligent networks. , 2021, , 131-149.		0
13	Traces for the Tactile Internet: Architecture, concepts, and evaluations. , 2021, , 321-349.		0
14	Integrating Quantum Simulation for Quantum-Enhanced Classical Network Emulation. IEEE Communications Letters, 2021, 25, 3922-3926.	4.1	1
15	Tactile Internet with Human-in-the-Loop: New frontiers of transdisciplinary research. , 2021, , 1-19.		7
16	5G Campus Networks: A First Measurement Study. IEEE Access, 2021, 9, 121786-121803.	4.2	69
17	Real-Time Compression for Tactile Internet Data Streams. Sensors, 2021, 21, 1924.	3.8	2
18	You Only Look Once, But Compute Twice: Service Function Chaining for Low-Latency Object Detection in Softwarized Networks. Applied Sciences (Switzerland), 2021, 11, 2177.	2.5	5

#	ARTICLE	IF	CITATIONS
19	Sliding Window RLNC on Multi-Hop Communication for Low Latency. , 2021, , .		2
20	Low-latency Sliding-window Recoding. , 2021, , .		2
21	Importance of Internet Exchange Point (IXP) infrastructure for 5G: Estimating the impact of 5G use cases. Telecommunications Policy, 2021, 45, 102091.	5.3	28
22	Hardware Acceleration of EEG-Based Emotion Classification Systems: A Comprehensive Survey. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 412-442.	4.0	12
23	A Theoretical Discussion and Survey of Network Automation for IoT: Challenges and Opportunity. IEEE Internet of Things Journal, 2021, 8, 12021-12045.	8.7	34
24	Multi-Agent Based Autonomic Network Management Architecture. IEEE Transactions on Network and Service Management, 2021, 18, 3595-3618.	4.9	29
25	Mobility- and Energy-Aware Cooperative Edge Offloading for Dependent Computation Tasks. Network, 2021, 1, 191-214.	2.4	14
26	Quantum Communication Networks. Human Ontogenetics, 2021, , .	0.3	19
27	Correction to "Fulcrum: Flexible Network Coding for Heterogeneous Devices" IEEE Access, 2021, 9, 108199-108199.	4.2	1
28	FAST: Flexible and Low-Latency State Transfer in Mobile Edge Computing. IEEE Access, 2021, 9, 115315-115334.	4.2	24
29	Power efficient mobile small cell placement for network-coded cooperation in UDNs. Computer Networks, 2021, , 108559.	5.1	0
30	SpaRec: Sparse Systematic RLNC Recoding in Multi-Hop Networks. IEEE Access, 2021, 9, 168567-168586.	4.2	13
31	Autonomous Network Traffic Classifier Agent for Autonomic Network Management System. , 2021, , .		3
32	Optimised Traffic Light Management Through Reinforcement Learning: Traffic State Agnostic Agent vs. Holistic Agent With Current V2I Traffic State Knowledge. IEEE Open Journal of Intelligent Transportation Systems, 2020, 1, 201-216.	4.8	10
33	QR-SDN: Towards Reinforcement Learning States, Actions, and Rewards for Direct Flow Routing in Software-Defined Networks. IEEE Access, 2020, 8, 174773-174791.	4.2	48
34	Vehicle Platooning: Sliding Window RLNC for Low Latency and High Resilience. , 2020, , .		7
35	Follow Me, If You Can: A Framework for Seamless Migration in Mobile Edge Cloud. , 2020, , .		9
36	Implementation of Network-Coded Cooperation for Energy Efficient Content Distribution in 5G Mobile Small Cells. IEEE Access, 2020, 8, 185964-185980.	4.2	12

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37	Study of Virtual Network Function Placement in 5G Cloud Radio Access Network. IEEE Transactions on Network and Service Management, 2020, 17, 2242-2259.	4.9	15
38	Versatile Network Codes: Energy Consumption in Heterogeneous IoT Devices. IEEE Access, 2020, 8, 168219-168228.	4.2	3
39	CubeSat-Based 5G Cloud Radio Access Networks: A Novel Paradigm for On-Demand Anytime/Anywhere Connectivity. IEEE Vehicular Technology Magazine, 2020, 15, 39-47.	3.4	15
40	On the need of computing in future communication networks. , 2020, , 3-45.		4
41	Network-Coded Cooperation and Multi-Connectivity for Massive Content Delivery. IEEE Access, 2020, 8, 15656-15672.	4.2	12
42	DSEP Fulcrum: Dynamic Sparsity and Expansion Packets for Fulcrum Network Coding. IEEE Access, 2020, 8, 78293-78314.	4.2	31
43	Seamless Service Migration Framework for Autonomous Driving in Mobile Edge Cloud. , 2020, , .		8
44	Energy-Aware Cooperative Offloading Framework for Inter-dependent and Delay-sensitive Tasks. , 2020, , .		9
45	Exploring the Benefits of Memory-Limited Fulcrum Recoding for Heterogeneous Nodes. , 2020, , .		2
46	FAST: Flexible and Low-Latency State Transfer in Mobile Edge Computing. , 2020, , .		2
47	Unidirectional Robust Header Compression for Reliable Low Latency Mesh Networks. , 2019, , .		6
48	Advanced Adaptive Decoder Using Fulcrum Network Codes. IEEE Access, 2019, 7, 141648-141661.	4.2	9
49	Reducing Latency in Virtual Machines: Enabling Tactile Internet for Human-Machine Co-Working. IEEE Journal on Selected Areas in Communications, 2019, 37, 1098-1116.	14.0	84
50	Reduction of Padding Overhead for RLNC Media Distribution With Variable Size Packets. IEEE Transactions on Broadcasting, 2019, 65, 558-576.	3.2	11
51	Implementation of Network Coding with Recoding for Unequal-sized and Header Compressed Traffic. , 2019, , .		9
52	Remote Robot Control with Human-in-the-Loop over Long Distances Using Digital Twins. , 2019, , .		20
53	Evaluating the Latency Overhead of Network-Coded Cooperative Networks for Different Cloud Sizes. , 2019, , .		1
54	Progressive Multicore RLNC Decoding With Online DAG Scheduling. IEEE Access, 2019, 7, 161184-161200.	4.2	11

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55	Device-Enhanced MEC: Multi-Access Edge Computing (MEC) Aided by End Device Computation and Caching: A Survey. IEEE Access, 2019, 7, 166079-166108.	4.2	146
56	Reliable Base Proposal for Header Compression. , 2019, , .		1
57	Containers vs Virtual Machines: Choosing the Right Virtualization Technology for Mobile Edge Cloud. , 2019, , .		19
58	Network-coded Cooperative Communication in Virtualized Mobile Small Cells. , 2019, , .		2
59	Network-Coded Multigeneration Protocols in Heterogeneous Cellular Networks. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2019, , 357-366.	0.3	3
60	A Study on Data Dissemination Techniques in Heterogeneous Cellular Networks. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2019, , 169-179.	0.3	4
61	Reliable low latency wireless mesh networks “ From Myth to reality. , 2018, , .		22
62	Massive video multicasting in cellular networks using network coded cooperative communication. , 2018, , .		12
63	Fulcrum: Flexible Network Coding for Heterogeneous Devices. IEEE Access, 2018, 6, 77890-77910.	4.2	44
64	Hardware Acceleration for RLNC: A Case Study Based on the Xtensa Processor with the Tensilica Instruction-Set Extension. Electronics (Switzerland), 2018, 7, 180.	3.1	8
65	Caterpillar RLNC With Feedback (CRLNC-FB): Reducing Delay in Selective Repeat ARQ Through Coding. IEEE Access, 2018, 6, 44787-44802.	4.2	38
66	Network Coding in Heterogeneous Multicore IoT Nodes With DAG Scheduling of Parallel Matrix Block Operations. IEEE Internet of Things Journal, 2017, 4, 917-933.	8.7	48
67	Demonstration of mobile edge cloud for tactile Internet using a 5G gaming application. , 2017, , .		10
68	PACE: Redundancy Engineering in RLNC for Low-Latency Communication. IEEE Access, 2017, 5, 20477-20493.	4.2	50
69	Robust Header Compression version 2 power consumption on Android devices via tunnelling. , 2017, , .		4
70	Caterpillar RLNC (CRLNC): A Practical Finite Sliding Window RLNC Approach. IEEE Access, 2017, 5, 20183-20197.	4.2	66
71	SECRET “ Secure network coding for reduced energy next generation mobile small cells: A European Training Network in wireless communications and networking for 5G. , 2017, , .		57
72	Applying Robust Header Compression Version 2 for UDP and RTP Broadcasting with Field Constraints. , 2017, , .		3

#	ARTICLE	IF	CITATIONS
73	Performance evaluation and implementation of IP and robust header compression schemes for TCP and UDP traffic in static and dynamic wireless contexts. Computer Science and Information Systems, 2017, 14, 283-308.	1.0	5
74	Prediction of RoHCv1 and RoHCv2 Compressor Utilities for VoIP. Acta Cybernetica, 2017, 23, 737-756.	0.6	0
75	On Goodput and Energy Measurements of Network Coding Schemes in the Raspberry Pi. Electronics (Switzerland), 2016, 5, 66.	3.1	7
76	Performance Evaluation of Network Header Compression Schemes for UDP, RTP and TCP. Periodica Polytechnica Electrical Engineering and Computer Science, 2016, 60, 151-162.	1.0	7
77	Efficiency Gain for RoHC Compressor Implementations with Dynamic Configuration. , 2016, , .		7
78	Regression Model Building and Efficiency Prediction of RoHCv2 Compressor Implementations for VoIP. , 2016, , .		9
79	A Perpetual Code for Network Coding. , 2014, , .		19
80	Distributed cloud storage using network coding. , 2014, , .		28
81	Wi-Fi cooperation or D2D-based multicast content distribution in LTE-A: A comparative analysis. , 2014, , .		34
82	PlayNCool: Opportunistic network coding for local optimization of routing in wireless mesh networks. , 2013, , .		24
83	Implementation of Network Coding for Social Mobile Clouds [Applications Corner]. IEEE Signal Processing Magazine, 2013, 30, 159-164.	5.6	30
84	Performance evaluation and comparison of ROHC ROHCv1 and ROHCv2 for multimedia delivery. , 2013, , .		14
85	Green mobile clouds: Network coding and user cooperation for improved energy efficiency. , 2012, , .		10
86	Mobile Clouds: The New Content Distribution Platform. Proceedings of the IEEE, 2012, 100, 1400-1403.	21.3	41
87	Kodo: An Open and Research Oriented Network Coding Library. Lecture Notes in Computer Science, 2011, , 145-152.	1.3	102
88	On Code Parameters and Coding Vector Representation for Practical RLNC. , 2011, , .		84
89	On-the-Fly Packet Error Recovery in a Cooperative Cluster of Mobile Devices. , 2011, , .		23
90	Decoding Algorithms for Random Linear Network Codes. Lecture Notes in Computer Science, 2011, , 129-136.	1.3	18

#	ARTICLE	IF	CITATIONS
91	Cooperative Power Saving Strategies in Wireless Networks: an Agent-based Model. , 2007, , .		24
92	RObust Header Compression (ROHC) Performance for Multimedia Transmission over 3G/4G Wireless Networks. Wireless Personal Communications, 2005, 32, 23-41.	2.7	23
93	Header Compression Schemes for Wireless Internet Access. Electrical Engineering and Applied Signal Processing Series, 2004, , .	1.2	7