

# Christoph Sommer

## List of Publications by Year in descending order

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Version: 2024-02-01

120  
papers

4,693  
citations

430874

18  
h-index

395702

33  
g-index

127  
all docs

127  
docs citations

127  
times ranked

2979  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multi-Technology Cooperative Driving: An Analysis Based on PLEXE. IEEE Transactions on Mobile Computing, 2023, 22, 4792-4806.	5.8	19
2	Beyond Sensing: Suitability of LoRa for Meshed Automatic Section Control of Agricultural Vehicles. , 2022, , .		1
3	Opportunistic UAV Relaying for Urban Vehicular Networks. , 2022, , .		2
4	Toward Smart Vehicle-to-Everything-Connected Powertrains: Driving Real Component Test Benches in a Fully Interactive Virtual Smart City. IEEE Vehicular Technology Magazine, 2021, 16, 75-82.	3.4	12
5	User Tracking and Reidentification. , 2021, , 1-3.		0
6	Adaptive content seeding for information-centric networking under high topology dynamics. IEEE Vehicular Technology Magazine, 2021, 16, 68-75.	3.4	4
7	Poster: Potentials of Mixing TSN Wired Networks and Best-Effort Wireless Networks for V2X. , 2021, , .		1
8	Poster: Simulating Hybrid LEO Satellite and V2X Networks. , 2021, , .		1
9	Poster: Enabling Comparable and Reproducible Simulations for V2X Research. , 2021, , .		0
10	Poster Abstract: An Open Source Approach to Field Testing of WLAN up to IEEE 802.11ad at 60 GHz Using Commodity Hardware. , 2020, , .		3
11	Modern WLAN for V2X Applications: Exploiting Beamforming for Platooning. , 2020, , .		5
12	Investigation of the impact of a wireless Fog Warning System with respect to road traffic on a highway. Personal and Ubiquitous Computing, 2019, 23, 893-899.	2.8	5
13	Bloom Hopping: Bloom Filter Based 2-Hop Neighbor Management in VANETs. IEEE Transactions on Mobile Computing, 2019, 18, 534-545.	5.8	13
14	Modeling Cycling Behavior to Improve Bicyclists' Safety at Intersections - A Networking Perspective. , 2019, , .		12
15	Veins: The Open Source Vehicular Network Simulation Framework. EAI/Springer Innovations in Communication and Computing, 2019, , 215-252.	1.1	97
16	Using Full Duplex Relaying to Reduce Physical Layer Latency in Platooning. , 2019, , .		5
17	Dynamic Platoon Formation at Urban Intersections. , 2019, , .		15
18	Fog Seeding Strategies for Information-Centric Heterogeneous Vehicular Networks. , 2019, , .		3

#	ARTICLE	IF	CITATIONS
19	Towards Heterogeneous Communication Strategies for Urban Platooning at Intersections. , 2019, , .		8
20	Towards Self-Explainable Cyber-Physical Systems. , 2019, , .		16
21	Verkehrssimulation im Hardware-in-the-Loop-SteuergerÄtetest. Proceedings, 2019, , 253-269.	0.3	0
22	Not All VANET Broadcasts Are the Same: Context-Aware Class Based Broadcast. IEEE/ACM Transactions on Networking, 2018, 26, 17-30.	3.8	31
23	Readjusting the privacy goals in Vehicular Ad-Hoc Networks: A safety-preserving solution using non-overlapping time-slotted pseudonym pools. Computer Communications, 2018, 122, 118-128.	5.1	18
24	Duplicate suppression for efficient floating car data collection in heterogeneous LTE-DSRC vehicular networks. Computer Communications, 2018, 123, 54-64.	5.1	14
25	A simulative analysis of the performance of IEEE 802.11p and ARIB STD-T109. Computer Communications, 2018, 122, 84-92.	5.1	10
26	Bridging worlds: Integrating hardware-in-the-loop testing with large-scale VANET simulation. , 2018, , .		26
27	On the need for coordinated access control for vehicular visible light communication. , 2018, , .		10
28	Performance Assessment of IEEEÄ802.11p with an Open Source SDR-Based Prototype. IEEE Transactions on Mobile Computing, 2018, 17, 1162-1175.	5.8	74
29	Efficient Multi-Channel Simulation of Wireless Communications. , 2018, , .		7
30	The Impact of Head of Line Blocking in Highly Dynamic WLANs. IEEE Transactions on Vehicular Technology, 2018, 67, 7664-7676.	6.3	6
31	Vehicular micro cloud in action: On gateway selection and gateway handovers. Ad Hoc Networks, 2018, 78, 73-83.	5.5	14
32	Guest Editorial: Introduction to the Special Issue on Advances in Smart and Green Transportation for Smart Cities. IEEE Transactions on Intelligent Transportation Systems, 2018, 19, 2152-2155.	8.0	6
33	Demo abstract: Integrating a driving simulator with city-scale VANET simulation for the development of next generation ADAS systems. , 2018, , .		10
34	Vehicular Micro Clouds as Virtual Edge Servers for Efficient Data Collection. , 2017, , .		30
35	Parked Cars as Virtual Network Infrastructure. , 2017, , .		15
36	Simulating a city-scale community network: From models to first improvements for Freifunk. , 2017, , .		3

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37	Backwards compatible extension of CAMs/DENMs for improved bike safety on the road. , 2017, , .		4
38	A systematic study on the impact of noise and OFDM interference on IEEE 802.11p. , 2017, , .		6
39	QQDCA: Adapting IEEE 802.11 EDCA for unicast transmissions at high topology dynamics. , 2017, , .		1
40	Cars as a main ICT resource of smart cities. , 2016, , 131-147.		1
41	Marrying safety with privacy: A holistic solution for location privacy in VANETs. , 2016, , .		10
42	On the impact of antenna patterns on VANET simulation. , 2016, , .		25
43	Performance comparison of IEEE 802.11p and ARIB STD-T109. , 2016, , .		7
44	Demo: OpenC2X â€” An open source experimental and prototyping platform supporting ETSI ITS-G5. , 2016, , .		40
45	Protocol options for low power sensor network MAC using wake-up receivers with duty cycling. , 2016, , .		4
46	On the impact of adjacent channel interference in multi-channel VANETs. , 2016, , .		11
47	Pick the right guy: CQI-based LTE forwarder selection in VANETs. , 2016, , .		12
48	Poster: Using clusters of parked cars as virtual vehicular network infrastructure. , 2016, , .		5
49	Special Issue on Multi-radio, Multi-technology, Multi-system Vehicular Communications. Computer Communications, 2016, 93, 1-2.	5.1	2
50	Interconnecting smart cities by vehicles: How feasible is it?. , 2016, , .		9
51	Cars as the base for service discovery and provision in highly dynamic networks. , 2016, , .		4
52	Enabling Situation Awareness at Intersections for IVC Congestion Control Mechanisms. IEEE Transactions on Mobile Computing, 2016, 15, 1674-1685.	5.8	27
53	MCB â€” A multi-channel beaconing protocol. Ad Hoc Networks, 2016, 36, 258-269.	5.5	8
54	Toward Communication Strategies for Platooning: Simulative and Experimental Evaluation. IEEE Transactions on Vehicular Technology, 2015, 64, 5411-5423.	6.3	89

#	ARTICLE	IF	CITATIONS
55	Cluster-based transmit power control in heterogeneous vehicular networks. , 2015, , .		7
56	IEEE 802.11p unicast considered harmful. , 2015, , .		21
57	How Shadowing Hurts Vehicular Communications and How Dynamic Beaconing Can Help. IEEE Transactions on Mobile Computing, 2015, 14, 1411-1421.	5.8	104
58	Information dissemination in vehicular networks. , 2015, , 75-93.		3
59	Simulative performance evaluation of vehicular networks. , 2015, , 255-274.		4
60	The scrambler attack: A robust physical layer attack on location privacy in vehicular networks. , 2015, , .		15
61	Simulation Tools and Techniques for Vehicular Communications and Applications. , 2015, , 365-392.		25
62	Making cars a main ICT resource in smart cities. , 2015, , .		41
63	Power matters: Automatic Gain Control for a Software Defined Radio IEEE 802.11a/g/p receiver. , 2015, , .		9
64	Timings Matter. Mobile Computing and Communications Review, 2015, 18, 81-90.	1.7	2
65	Towards energy efficient smart phone applications: Energy models for offloading tasks into the cloud. , 2014, , .		16
66	Fairness kills safety: A comparative study for intersection assistance applications. , 2014, , .		6
67	Timings matter. , 2014, , .		8
68	Towards a simulation framework for paraglider networks. , 2014, , .		0
69	Towards inter-vehicle communication strategies for platooning support. , 2014, , .		36
70	Towards a vehicular cloud - using parked vehicles as a temporary network and storage infrastructure. , 2014, , .		44
71	Poster: A simulator for heterogeneous vehicular networks. , 2014, , .		57
72	Driving for Big Data? Privacy Concerns in Vehicular Networking. IEEE Security and Privacy, 2014, 12, 77-79.	1.2	62

#	ARTICLE	IF	CITATIONS
73	A networking perspective on self-organizing intersection management. , 2014, , .		11
74	A Vehicular Networking Perspective on Estimating Vehicle Collision Probability at Intersections. IEEE Transactions on Vehicular Technology, 2014, 63, 1802-1812.	6.3	72
75	Adaptive load allocation for combining Anomaly Detectors using controlled skips. , 2014, , .		0
76	The Role of Parked Cars in Content Downloading for Vehicular Networks. IEEE Transactions on Vehicular Technology, 2014, 63, 4606-4617.	6.3	59
77	On the impact of street width on 5.9 GHz radio signal propagation in vehicular networks. , 2014, , .		5
78	IVC in Cities: Signal Attenuation by Buildings and How Parked Cars Can Improve the Situation. IEEE Transactions on Mobile Computing, 2014, 13, 1733-1745.	5.8	78
79	On the applicability of fair and adaptive data dissemination in traffic information systems. Ad Hoc Networks, 2014, 13, 428-443.	5.5	25
80	Plexe: A platooning extension for Veins. , 2014, , .		185
81	A cluster based architecture for intersection collision avoidance using heterogeneous networks. , 2013, , .		43
82	SmartRevoc: An efficient and privacy preserving revocation system using parked vehicles. , 2013, , .		9
83	Towards an Open Source IEEE 802.11p stack: A full SDR-based transceiver in GNU Radio. , 2013, , .		30
84	Use both lanes: Multi-channel beaconing for message dissemination in vehicular networks. , 2013, , .		6
85	Faster distributed localization of large numbers of nodes using clustering. , 2013, , .		5
86	How shadowing hurts vehicular communications and how dynamic beaconing can help. , 2013, , .		38
87	Decoding IEEE 802.11a/g/p OFDM in software using GNU radio. , 2013, , .		9
88	Short paper: Vehicle shadowing distribution depends on vehicle type: Results of an experimental study. , 2013, , .		13
89	An IEEE 802.11a/g/p OFDM receiver for GNU radio. , 2013, , .		132
90	Comparing apples and oranges?. , 2012, , .		18

#	ARTICLE	IF	CITATIONS
91	Content downloading in vehicular networks: Bringing parked cars into the picture. , 2012, , .		27
92	On the applicability of Two-Ray path loss models for vehicular network simulation. , 2012, , .		136
93	To crash or not to crash: Estimating its likelihood and potentials of beacon-based IVC systems. , 2012, , .		20
94	Fair and adaptive data dissemination for Traffic Information Systems. , 2012, , .		20
95	On the Necessity of Accurate IEEE 802.11P Models for IVC Protocol Simulation. , 2012, , .		48
96	Toward reproducibility and comparability of IVC simulation studies: a literature survey. , 2012, 50, 82-88.		31
97	A computationally inexpensive empirical model of IEEE 802.11p radio shadowing in urban environments. , 2011, , .		207
98	Bidirectionally Coupled Network and Road Traffic Simulation for Improved IVC Analysis. IEEE Transactions on Mobile Computing, 2011, 10, 3-15.	5.8	1,188
99	Traffic information systems: efficient message dissemination via adaptive beaconing. , 2011, 49, 173-179.		158
100	SlotSwap: strong and affordable location privacy in intelligent transportation systems. IEEE Communications Magazine, 2011, 49, 126-133.	6.1	124
101	Toward Realistic Simulation of Intervehicle Communication. IEEE Vehicular Technology Magazine, 2011, 6, 43-51.	3.4	26
102	Simulative performance evaluation of the sim <sup>TD</sup> Self Organizing Traffic Information System. , 2011, , .		0
103	Cooperative Awareness at Low Vehicle Densities: How Parked Cars Can Help See through Buildings. , 2011, , .		40
104	Simulation of Ad Hoc Routing Protocols using OMNeT++. Mobile Networks and Applications, 2010, 15, 786-801.	3.3	22
105	On the feasibility of UMTS-based Traffic Information Systems. Ad Hoc Networks, 2010, 8, 506-517.	5.5	48
106	Improving the Accuracy of IVC Simulation Using Crowd-sourced Geodata. PIK - Praxis Der Informationsverarbeitung Und Kommunikation, 2010, 33, .	0.2	9
107	On the Impact of Human Driver Behavior on Intelligent Transportation Systems. , 2010, , .		13
108	Emissions vs. Travel Time: Simulative Evaluation of the Environmental Impact of ITS. , 2010, , .		26

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109	Performance Evaluation of Network Mobility Handover over Future Aeronautical Data Link. , 2010, , .		4
110	Strong and affordable location privacy in VANETs: Identity diffusion using time-slots and swapping. , 2010, , .		43
111	Adaptive beaconing for delay-sensitive and congestion-aware traffic information systems. , 2010, , .		57
112	Simulating the influence of IVC on road traffic using bidirectionally coupled simulators. , 2008, , .		46
113	Progressing toward realistic mobility models in VANET simulations. IEEE Communications Magazine, 2008, 46, 132-137.	6.1	141
114	Requirements and objectives for secure Traffic Information Systems. , 2008, , .		5
115	Cooperative vehicle applications with cellular communication. ATZelektronik Worldwide, 2008, 3, 14-17.	0.1	2
116	Virtual Cord Protocol (VCP): A flexible DHT-like routing service for sensor networks. , 2008, , .		42
117	On the need for bidirectional coupling of road traffic microsimulation and network simulation. , 2008, , .		31
118	A Simulation Model of DYMO for Ad Hoc Routing in OMNeT++. , 2008, , .		15
119	The DYMO Routing Protocol in VANET Scenarios. , 2007, , .		60
120	Realistic Simulation of Network Protocols in VANET Scenarios. , 2007, , .		26