Christian Bettstetter

List of Publications by Year
in descending order

68 papers	5,372 citations	257429 24 h-index	276858 41 g-index
68 all docs	68 docs citations	68 times ranked	3939 citing authors

#	ARTICLE	IF	CITATIONS
1	The node distribution of the random waypoint mobility model for wireless ad hoc networks. IEEE Transactions on Mobile Computing, 2003, 2, 257-269.	5.8	888
2	On the minimum node degree and connectivity of a wireless multihop network. , 2002, , .		648
3	Stochastic Properties of the Random Waypoint Mobility Model. Wireless Networks, 2004, 10, 555-567.	3.0	640
4	Mobility modeling in wireless networks. Mobile Computing and Communications Review, 2001, 5, 55-66.	1.7	380
5	Connectivity of Wireless Multihop Networks in a Shadow Fading Environment. Wireless Networks, 2005, 11, 571-579.	3.0	261
6	Drone networks: Communications, coordination, and sensing. Ad Hoc Networks, 2018, 68, 1-15.	5.5	257
7	Interference Management for Cellular-Connected UAVs: A Deep Reinforcement Learning Approach. IEEE Transactions on Wireless Communications, 2019, 18, 2125-2140.	9.2	249
8	On the Connectivity of Ad Hoc Networks. Computer Journal, 2004, 47, 432-447.	2.4	234
9	An Autonomous Multi-UAV System for Search and Rescue. , 2015, , .		172
10	Achieving air-ground communications in 802.11 networks with three-dimensional aerial mobility. , 2013, , .		130
11	Application-driven design of aerial communication networks. , 2014, 52, 129-137.		123
12	Cooperative Relaying Under Spatially and Temporally Correlated Interference. IEEE Transactions on Vehicular Technology, 2015, 64, 4655-4669.	6.3	103
13	Temporal Correlation of Interference in Wireless Networks with Rayleigh Block Fading. IEEE Transactions on Mobile Computing, 2012, 11, 2109-2120.	5.8	79
14	A Distributed End-to-End Reservation Protocol for IEEE 802.11-Based Wireless Mesh Networks. IEEE Journal on Selected Areas in Communications, 2006, 24, 2018-2027.	14.0	65
15	Emergent Slot Synchronization in Wireless Networks. IEEE Transactions on Mobile Computing, 2010, 9, 719-732.	5.8	65
16	Code construction and decoding of parallel concatenated tail-biting codes. IEEE Transactions on Information Theory, 2001, 47, 366-386.	2.4	61
17	Topology properties of Ad hoc networks with random waypoint mobility. Mobile Computing and Communications Review, 2003, 7, 50-52.	1.7	60
18	An Experimental Study of Selective Cooperative Relaying in Industrial Wireless Sensor Networks. IEEE Transactions on Industrial Informatics, 2014, 10, 1806-1816.	11.3	60

#	ARTICLE	IF	CITATIONS
19	Guaranteeing global synchronization in networks with stochastic interactions. New Journal of Physics, 2012, 14, 073031.	2.9	52
20	Multi-objective drone path planning for search and rescue with quality-of-service requirements. Autonomous Robots, 2020, 44, 1183-1198.	4.8	50
21	Interference Functionals in Poisson Networks. IEEE Transactions on Information Theory, 2016, 62, 370-383.	2.4	47
22	Experimental analysis of multipoint-to-point UAV communications with IEEE 802.11n and 802.11ac. , 2015, , .		45
23	Connectivity of wireless multihop networks in a shadow fading environment. , 2003, , .		43
24	Drone delivery systems: job assignment and dimensioning. Autonomous Robots, 2019, 43, 261-274.	4.8	41
25	Handover Challenges for Cellular-Connected Drones. , 2019, , .		39
26	Self-organizing synchronization with inhibitory-coupled oscillators. ACM Transactions on Autonomous and Adaptive Systems, 2012, 7, 1-23.	0.8	38
27	Communication and Coordination for Drone Networks. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2017, , 79-91.	0.3	37
28	Collaboration in Multi-Robot Exploration: To Meet or not to Meet?. Journal of Intelligent and Robotic Systems: Theory and Applications, 2016, 82, 325-337.	3.4	34
29	An Experimental Evaluation of LTE-A Throughput for Drones. , 2019, , .		30
30	Edge Computing in 5G for Drone Navigation: What to Offload?. IEEE Robotics and Automation Letters, 2021, 6, 2571-2578.	5.1	28
31	Cooperative ARQ With Relay Selection: An Analytical Framework Using Semi-Markov Processes. IEEE Transactions on Vehicular Technology, 2014, 63, 178-190.	6.3	26
32	Sandsbots: Robots That Sync and Swarm. IEEE Access, 2020, 8, 218752-218764.	4.2	26
33	First experiments with a 5G-Connected drone. , 2020, , .		22
34	Collaborative microdrones: applications and research challenges. , 2008, , .		21
35	Convergence of Self-Organizing Pulse-Coupled Oscillator Synchronization in Dynamic Networks. IEEE Transactions on Automatic Control, 2017, 62, 1606-1619.	5.7	20
36	Medium Access with Adaptive Relay Selection in Cooperative Wireless Networks. IEEE Transactions on Mobile Computing, 2014, 13, 2042-2057.	5.8	19

#	Article	IF	Citations
37	Firefly synchronization with phase rate equalization and its experimental analysis in wireless systems. Computer Networks, 2016, 97, 74-87.	5.1	19
38	Live multicast video streaming from drones: an experimental study. Autonomous Robots, 2020, 44, 75-91.	4.8	19
39	A Survey of Models and Design Methods for Self-organizing Networked Systems. Lecture Notes in Computer Science, 2009, , 37-49.	1.3	19
40	A review of swarmalators and their potential in bio-inspired computing. , 2019, , .		17
41	Autocorrelation and Coherence Time of Interference in Poisson Networks. IEEE Transactions on Mobile Computing, 2020, 19, 1506-1518.	5.8	16
42	Job Selection in a Network of Autonomous UAVs for Delivery of Goods. , 0, , .		16
43	How does interference dynamics influence packet delivery in cooperative relaying?. , 2013, , .		13
44	Multidrone Systems: More Than the Sum of the Parts. Computer, 2021, 54, 34-43.	1.1	12
45	Fault-tolerant averaging for self-organizing synchronization in wireless ad hoc networks. , 2010, , .		11
46	On Interference Dynamics in MatÃ©rn Networks. IEEE Transactions on Mobile Computing, 2020, 19, 1677-1688.	5.8	10
47	Interference Prediction in Wireless Networks: Stochastic Geometry Meets Recursive Filtering. IEEE Transactions on Vehicular Technology, 2021, 70, 2783-2793.	6.3	10
48	Toward a mobility metric for comparable & reproducible results in ad hoc networks research. Mobile Computing and Communications Review, 2003, 7, 58-60.	1.7	10
49	Quantifying inhomogeneity of spatial point patterns. Computer Networks, 2017, 115, 65-81.	5.1	9
50	A Performance Evaluation Tool for Drone Communications in 4G Cellular Networks. , 2019, , .		9
51	Wireless Connectivity in Airplanes: Challenges and the Case for UWB. IEEE Access, 2021, 9, 52913-52925.	4.2	9
52	Measurement-based analysis of cooperative relaying in an industrial wireless sensor network. , 2012, , .		8
53	Contention-Based Estimation of Neighbor Cardinality. IEEE Transactions on Mobile Computing, 2013, 12, 542-555.	5.8	8
54	Packet travel times in wireless relay chains under spatially and temporally dependent interference. , 2014, , .		8

#	Article	IF	Citations
55	Underlay device-to-device communications in LTE-A: Uplink or downlink?. , 2015, , .		8
56	Semi-Blind Interference Prediction in Wireless Networks. , 2017, , .		7
57	Video Quality and Latency for UAV Teleoperation over LTE: A Study with ns3. , 2021, , .		7
58	Globally stable synchronization by inhibitory pulse coupling. , 2009, , .		6
59	Experimental Study of Packet Loss in a UWB Sensor Network for Aircraft. , 2017, , .		6
60	On Access Control in Cabin-Based Transport Systems. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 2149-2156.	8.0	5
61	Synchronization of inhibitory pulse-coupled oscillators in delayed random and line networks. , 2010, , .		4
62	Application-Layer Rate-Adaptive Multicast Video Streaming over 802.11 for Mobile Devices. , 2016, , .		3
63	Towards Industrial Ultra-Wideband Networks: Experiments for Machine Vibration Monitoring. IEEE Access, 2020, 8, 42576-42583.	4.2	3
64	Deadlocks in the synchronization of pulse-coupled oscillators on star graphs. Physical Review E, 2020, 102, 062211.	2.1	2
65	Performance Impact of Mobility in an Emulated IP-based Multihop Radio Access Network. International Federation for Information Processing, 2005, , 395-406.	0.4	2
66	Guarded by Gamora: How Access Control Balances Out Waiting Times in Transport Systems. , 2018, , .		1
67	Swarmalators with Stochastic Coupling and Memory. , 2021, , .		1
68	Stochastic Switching of Power Levels can Accelerate Self-Organized Synchronization in Wireless Networks with Interference. , 2021, , .		1