Jukka Olavi Talvitie

List of Publications by Year
in descending order

64 papers	1,101 citations	840776 11 h-index	839539 18 g-index
64 all docs	64 docs citations	64 times ranked	1023 citing authors

#	Article	IF	Citations
1	Joint Device Positioning and Clock Synchronization in 5G Ultra-Dense Networks. IEEE Transactions on Wireless Communications, 2017, 16, 2866-2881.	9.2	156
2	Distance-Based Interpolation and Extrapolation Methods for RSS-Based Localization With Indoor Wireless Signals. IEEE Transactions on Vehicular Technology, 2015, 64, 1340-1353.	6.3	139
3	Radio Interface Evolution Towards 5G and Enhanced Local Area Communications. IEEE Access, 2014, 2, 1005-1029.	4.2	50
4	Deconvolution-based indoor localization with WLAN signals and unknown access point locations. , 2013, , .		42
5	Received signal strength models for WLAN and BLE-based indoor positioning in multi-floor buildings. , 2015, , .		41
6	WLAN and RFID Propagation channels for hybrid indoor positioning. , 2014, , .		38
7	Hybrid WLAN-RFID Indoor Localization Solution Utilizing Textile Tag. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 1358-1361.	4.0	33
8	Positioning of high-speed trains using 5G new radio synchronization signals. , 2018, , .		33
9	Statistical path loss parameter estimation and positioning using RSS measurements in indoor wireless networks. , 2012, , .		32
10	Novel Algorithms for High-Accuracy Joint Position and Orientation Estimation in 5G mmWave Systems. , 2017, , .		32
11	Positioning and Location-Aware Communications for Modern Railways with 5G New Radio. IEEE Communications Magazine, 2019, 57, 24-30.	6.1	32
12	Millimeter-Wave Mobile Sensing and Environment Mapping: Models, Algorithms and Validation. IEEE Transactions on Vehicular Technology, 2022, 71, 3900-3916.	6.3	22
13	Radio-based Sensing and Indoor Mapping with Millimeter-Wave 5G NR Signals. , 2020, , .		21
14	Access point significance measures in WLAN-based location. , 2012, , .		20
15	Performance Enhancement and Evaluation of IEEE 802.11ah Multi-Access Point Network Using Restricted Access Window Mechanism. , 2014, , .		20
16	Continuous high-accuracy radio positioning of cars in ultra-dense 5G networks. , 2017, , .		19
17	Low latency radio interface for 5G flexible TDD local area communications. , 2014, , .		17
18	Positioning and Location-Based Beamforming for High Speed Trains in 5G NR Networks. , 2018, , .		17

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19	High-Accuracy Joint Position and Orientation Estimation in Sparse 5G mmWave Channel. , 2019, , .		17
20	The effect of coverage gaps and measurement inaccuracies in fingerprinting based indoor localization. , 2014, , .		16
21	Positioning-Aided 3D Beamforming for Enhanced Communications in mmWave Mobile Networks. IEEE Access, 2020, 8, 55513-55525.	4.2	16
22	Neural Network Fingerprinting and GNSS Data Fusion for Improved Localization in 5G. , 2021, , .		16
23	Novel Indoor Positioning Mechanism Via Spectral Compression. IEEE Communications Letters, 2016, 20, 352-355.	4.1	15
24	On the fingerprints dynamics in WLAN indoor localization. , 2013, , .		13
25	Location-aware 5G communications and Doppler compensation for high-speed train networks. , 2017, , .		13
26	Method and Analysis of Spectrally Compressed Radio Images for Mobile-Centric Indoor Localization. IEEE Transactions on Mobile Computing, 2018, 17, 845-858.	5.8	13
27	Statistical path loss parameter estimation and positioning using RSS measurements. , 2012, , .		12
28	Novel Wake-Up Signaling for Enhanced Energy-Efficiency of 5G and beyond Mobile Devices. , 2018, , .		12
29	A Computationally Efficient EK-PMBM Filter for Bistatic mmWave Radio SLAM. IEEE Journal on Selected Areas in Communications, 2022, 40, 2179-2192.	14.0	12
30	Deep Learning Based Localization and HO Optimization in 5G NR Networks. , 2020, , .		11
31	Channel Parameter Estimation and TX Positioning With Multi-Beam Fusion in 5G mmWave Networks. IEEE Transactions on Wireless Communications, 2022, 21, 3192-3207.	9.2	11
32	RSSI channel effects in cellular and WLAN positioning. , 2012, , .		10
33	Joint cmWave-based multiuser positioning and network synchronization in dense 5G networks. , 2018, , .		10
34	Modeling Received Signal Strength measurements for cellular network based positioning. , 2013, , .		9
35	New Spectrally and Energy Efficient Flexible TDD Based Air Interface for 5G Small Cells. , 2014, , .		9
36	Positioning and Tracking of High-speed Trains with Non-linear State Model for 5G and Beyond Systems. , 2019, , .		9

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37	EKF-based and Geometry-based Positioning under Location Uncertainty of Access Nodes in Indoor Environment. , 2019, , .		8
38	Direct Lightweight Temporal Compression for Wearable Sensor Data. , 2021, 5, 1-4.		8
39	Networking and Positioning Co-Design in Multi-Connectivity Industrial mmW Systems. IEEE Transactions on Vehicular Technology, 2020, 69, 15842-15856.	6.3	8
40	A Comparison of Received Signal Strength Statistics between 2.4 GHz and 5 GHz Bands for WLAN-Based Indoor Positioning. , 2015, , .		7
41	Beam-based Device Positioning in mmWave 5G Systems under Orientation Uncertainties. , 2018, , .		7
42	Transfer Learning for Convolutional Indoor Positioning Systems. , 2021, , .		7
43	Toward Accurate Indoor Positioning: An RSS-Based Fusion of UWB and Machine-Learning-Enhanced WiFi. Sensors, 2022, 22, 3204.	3.8	7
44	Improved performance analysis for superimposed pilot based short channel estimator. , 2010, , .		6
45	Big Data in 5G Distributed Applications. Lecture Notes in Computer Science, 2019, , 138-162.	1.3	6
46	mmWave Simultaneous Localization and Mapping Using a Computationally Efficient EK-PHD Filter. , 2021, , .		6
47	Deep Learning-Based Cell-Level and Beam-Level Mobility Management System. Sensors, 2020, 20, 7124.	3.8	5
48	On the RSS biases in WLAN-based indoor positioning. , 2015, , .		4
49	Beamformed Radio Link Capacity Under Positioning Uncertainty. IEEE Transactions on Vehicular Technology, 2020, 69, 16235-16240.	6.3	4
50	Deep Learning-based Fingerprinting for Outdoor UE Positioning Utilising Spatially Correlated RSSs of 5G Networks. , 2022, , .		4
51	Motivating the mathematics studies by real-life examples of signal processing and communications engineering. , 2011, , .		3
52	Data fusion approaches for WiFi fingerprinting. , 2016, , .		3
53	Empowering Heterogeneous Communication Data Links in General Aviation through mmWave Signals. IEEE Wireless Communications, 2019, 26, 164-171.	9.0	3
54	Radio Positioning and Tracking of High-Speed Devices in 5G NR Networks: System Concept and Performance. , 2019, , .		3

#	ARTICLE	IF	CITATIONS
55	Absolute Positioning with Unsupervised Multipoint Channel Charting for 5G Networks. , 2020, , .		3
56	Performance evaluation of a DDST based SIMO SC system with PAPR reduction. , 2010, , .		2
57	Indoor Mapping with a Mobile Radar Using an EK-PHD Filter. , 2021, , .		2
58	Deep Learning Based OFDM Physical-Layer Receiver for Extreme Mobility. , 2021, , .		2
59	Channel equalization in narrowband mobile peer-to-peer networks using superimposed pilots. , 2009, , .		1
60	Channel estimation in time-varying flat-fading channel using superimposed pilots with interference avoidance. , 2010, , .		1
61	Performance evaluation of time-multiplexed and data-dependent superimposed training based transmission with practical power amplifier model. Eurasip Journal on Wireless Communications and Networking, 2012, 2012, .	2.4	1
62	Filtered OFDM Based URLLC in 5G New Radio: Principles and Performance. , 2019, , .		1
63	mmWave Mapping using PHD with Smoothed Track Confirmation and Multi-Bounce Suppression. , 2022, , .		1
64	Challenges and Solutions in Received Signal Strength-Based Seamless Positioning. , 2019, , 249-285.		0