Henk Wymeersch

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/3017080/publications.pdf

Version: 2024-02-01

345 papers	11,904 citations	44042 48 h-index	42364 92 g-index
352 all docs	352 docs citations	352 times ranked	6309 citing authors

#	Article	IF	Citations
1	Cooperative Localization in Wireless Networks. Proceedings of the IEEE, 2009, 97, 427-450.	16.4	918
2	Fundamental Limits of Wideband Localizationâ€" Part II: Cooperative Networks. IEEE Transactions on Information Theory, 2010, 56, 4981-5000.	1.5	693
3	NLOS identification and mitigation for localization based on UWB experimental data. IEEE Journal on Selected Areas in Communications, 2010, 28, 1026-1035.	9.7	488
4	Massive MIMO is a realityâ€"What is next?. , 2019, 94, 3-20.		417
5	Position and Orientation Estimation Through Millimeter-Wave MIMO in 5G Systems. IEEE Transactions on Wireless Communications, 2018, 17, 1822-1835.	6.1	349
6	Location-Aware Communications for 5G Networks: How location information can improve scalability, latency, and robustness of 5G. IEEE Signal Processing Magazine, 2014, 31, 102-112.	4.6	346
7	5G mmWave Positioning for Vehicular Networks. IEEE Wireless Communications, 2017, 24, 80-86.	6.6	312
8	Direct Localization for Massive MIMO. IEEE Transactions on Signal Processing, 2017, 65, 2475-2487.	3.2	261
9	A Machine Learning Approach to Ranging Error Mitigation for UWB Localization. IEEE Transactions on Communications, 2012, 60, 1719-1728.	4.9	254
10	Convergent Communication, Sensing and Localization in 6G Systems: An Overview of Technologies, Opportunities and Challenges. IEEE Access, 2021, 9, 26902-26925.	2.6	224
11	Log-domain decoding of LDPC codes over GF(q). , 2004, , .		215
12	Design and Experimental Validation of a Cooperative Driving System in the Grand Cooperative Driving Challenge. IEEE Transactions on Intelligent Transportation Systems, 2012, 13, 994-1007.	4.7	186
13	Collaborative Sensor Network Localization: Algorithms and Practical Issues. Proceedings of the IEEE, 2018, 106, 1089-1114.	16.4	153
14	Radio Localization and Mapping With Reconfigurable Intelligent Surfaces: Challenges, Opportunities, and Research Directions. IEEE Vehicular Technology Magazine, 2020, 15, 52-61.	2.8	153
15	Reconfigurable Intelligent Surfaces: A signal processing perspective with wireless applications. IEEE Signal Processing Magazine, 2022, 39, 135-158.	4.6	152
16	Error Bounds for Uplink and Downlink 3D Localization in 5G Millimeter Wave Systems. IEEE Transactions on Wireless Communications, 2018, 17, 4939-4954.	6.1	142
17	Channel Estimation for RIS-Aided mmWave MIMO Systems via Atomic Norm Minimization. IEEE Transactions on Wireless Communications, 2021, 20, 5786-5797.	6.1	123
18	Distributed Localization and Tracking of Mobile Networks Including Noncooperative Objects. IEEE Transactions on Signal and Information Processing Over Networks, 2016, 2, 57-71.	1.6	117

#	Article	IF	Citations
19	Reconfigurable, Intelligent, and Sustainable Wireless Environments for 6G Smart Connectivity. IEEE Communications Magazine, 2021, 59, 99-105.	4.9	113
20	Cooperative Synchronization in Wireless Networks. IEEE Transactions on Signal Processing, 2014, 62, 2837-2849.	3.2	106
21	Harnessing NLOS Components for Position and Orientation Estimation in 5G Millimeter Wave MIMO. IEEE Transactions on Wireless Communications, 2019, 18, 93-107.	6.1	103
22	Coordination of Cooperative Autonomous Vehicles: Toward safer and more efficient road transportation. IEEE Signal Processing Magazine, 2016, 33, 74-84.	4.6	97
23	Large Intelligent Surface for Positioning in Millimeter Wave MIMO Systems. , 2020, , .		94
24	Adaptive Beamforming Design for mmWave RIS-Aided Joint Localization and Communication. , 2020, , .		94
25	Location-aided mm-wave channel estimation for vehicular communication. , 2016, , .		92
26	Code-Aided Turbo Synchronization. Proceedings of the IEEE, 2007, 95, 1255-1271.	16.4	91
27	Implicit Cooperative Positioning in Vehicular Networks. IEEE Transactions on Intelligent Transportation Systems, 2018, 19, 3964-3980.	4.7	91
28	6G Vision, Value, Use Cases and Technologies From European 6G Flagship Project Hexa-X. IEEE Access, 2021, 9, 160004-160020.	2.6	88
29	Belief consensus algorithms for fast distributed target tracking in wireless sensor networks. Signal Processing, 2014, 95, 149-160.	2.1	87
30	Hybrid Cooperative Positioning Based on Distributed Belief Propagation. IEEE Journal on Selected Areas in Communications, 2011, 29, 1948-1958.	9.7	86
31	5G Position and Orientation Estimation through Millimeter Wave MIMO. , 2015, , .		86
32	5G mmWave Cooperative Positioning and Mapping Using Multi-Model PHD Filter and Map Fusion. IEEE Transactions on Wireless Communications, 2020, 19, 3782-3795.	6.1	86
33	Spatial Wireless Channel Prediction under Location Uncertainty. IEEE Transactions on Wireless Communications, 2016, 15, 1031-1044.	6.1	83
34	Outage behavior of selective relaying schemes. IEEE Transactions on Wireless Communications, 2009, 8, 3890-3895.	6.1	79
35	Back-Pressure Traffic Signal Control With Fixed and Adaptive Routing for Urban Vehicular Networks. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 2134-2143.	4.7	79
36	Traffic coordination at road intersections: Autonomous decision-making algorithms using model-based heuristics. IEEE Intelligent Transportation Systems Magazine, 2017, 9, 8-21.	2.6	77

#	Article	IF	Citations
37	RadChat: Spectrum Sharing for Automotive Radar Interference Mitigation. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 416-429.	4.7	77
38	A survey on 5G massive MIMO localization. , 2019, 94, 21-28.		74
39	Wireless Environment as a Service Enabled by Reconfigurable Intelligent Surfaces: The RISE-6G Perspective. , 2021, , .		73
40	Radar Interference Mitigation for Automated Driving: Exploring Proactive Strategies. IEEE Signal Processing Magazine, 2020, 37, 72-84.	4.6	70
41	Multidimensional mapping for bit-interleaved coded modulation with BPSK/QPSK signaling. IEEE Communications Letters, 2005, 9, 453-455.	2.5	67
42	Cooperative receding horizon conflict resolution at traffic intersections. , 2014, , .		66
43	Nonlinear Impairment-Aware Static Resource Allocation in Elastic Optical Networks. Journal of Lightwave Technology, 2015, 33, 4554-4564.	2.7	66
44	Comparison of polarization-switched QPSK and polarization-multiplexed QPSK at 30 Gbit/s. Optics Express, 2011, 19, 7839.	1.7	64
45	Limited Feedforward Waveform Design for OFDM Dual-Functional Radar-Communications. IEEE Transactions on Signal Processing, 2021, 69, 2955-2970.	3.2	64
46	Connected autonomous vehicles for improving mixed traffic efficiency in unsignalized intersections with deep reinforcement learning. Communications in Transportation Research, 2021, 1, 100017.	4.9	62
47	Integration of Communication and Sensing in 6G: a Joint Industrial and Academic Perspective. , 2021, , .		62
48	A Comparison of Parametric and Sample-Based Message Representation in Cooperative Localization. International Journal of Navigation and Observation, 2012, 2012, 1-10.	0.8	61
49	Uniformly Reweighted Belief Propagation for Estimation and Detection in Wireless Networks. IEEE Transactions on Wireless Communications, 2012, 11, 1587-1595.	6.1	61
50	Near-field Localization with a Reconfigurable Intelligent Surface Acting as Lens. , 2021, , .		61
51	An approximate solution to the optimal coordination problem for autonomous vehicles at intersections. , 2015, , .		58
52	A Tutorial on Terahertz-Band Localization for 6G Communication Systems. IEEE Communications Surveys and Tutorials, 2022, 24, 1780-1815.	24.8	58
53	Target Tracking in Confined Environments With Uncertain Sensor Positions. IEEE Transactions on Vehicular Technology, 2016, 65, 870-882.	3.9	57
54	Millimeter-Wave Downlink Positioning With a Single-Antenna Receiver. IEEE Transactions on Wireless Communications, 2019, 18, 4479-4490.	6.1	55

#	Article	IF	Citations
55	CramÃ©r-Rao Bound for Hybrid GNSS-Terrestrial Cooperative Positioning. IEEE Communications Letters, 2010, 14, 1005-1007.	2.5	54
56	Cooperative Simultaneous Localization and Synchronization in Mobile Agent Networks. IEEE Transactions on Signal Processing, 2017, 65, 3587-3602.	3.2	52
57	5G Positioning and Mapping With Diffuse Multipath. IEEE Transactions on Wireless Communications, 2021, 20, 1164-1174.	6.1	51
58	Censoring for Bayesian Cooperative Positioning in Dense Wireless Networks. IEEE Journal on Selected Areas in Communications, 2012, 30, 1835-1842.	9.7	49
59	Distributed Estimation With Information-Seeking Control in Agent Networks. IEEE Journal on Selected Areas in Communications, 2015, 33, 2439-2456.	9.7	49
60	A Discrete-Time Model for Uncompensated Single-Channel Fiber-Optical Links. IEEE Transactions on Communications, 2012, 60, 3440-3450.	4.9	48
61	Resource Allocation for Flexible-Grid Optical Networks With Nonlinear Channel Model [Invited]. Journal of Optical Communications and Networking, 2015, 7, B101.	3.3	48
62	Robust Location-Aided Beam Alignment in Millimeter Wave Massive MIMO. , 2017, , .		48
63	True Cramerâ€“Rao Bound for Timing Recovery From a Bandlimited Linearly Modulated Waveform With Unknown Carrier Phase and Frequency. IEEE Transactions on Communications, 2004, 52, 473-483.	4.9	46
64	Achievable Information Rates for Nonlinear Fiber Communication via End-to-end Autoencoder Learning. , 2018, , .		45
65	A Stochastic Geometry Model for Vehicular Communication near Intersections. , 2015, , .		44
66	Machine learning under the spotlight. Nature Photonics, 2017, 11, 749-751.	15.6	44
67	Device-Free Person Detection and Ranging in UWB Networks. IEEE Journal on Selected Topics in Signal Processing, 2014, 8, 43-54.	7.3	43
68	Location-Aided Pilot Contamination Avoidance for Massive MIMO Systems. IEEE Transactions on Wireless Communications, 2018, 17, 2662-2674.	6.1	43
69	MIMO-OFDM Joint Radar-Communications: Is ICI Friend or Foe?. IEEE Journal on Selected Topics in Signal Processing, 2021, 15, 1393-1408.	7.3	42
70	Modified constant modulus algorithm for polarization-switched QPSK. Optics Express, 2011, 19, 7734.	1.7	41
71	Stochastic Digital Backpropagation. IEEE Transactions on Communications, 2014, 62, 3956-3968.	4.9	40
72	On the trade-off between positioning and data rate for mm-wave communication. , 2017, , .		40

#	Article	IF	Citations
73	Optimal Precoders for Tracking the AoD and AoA of a mmWave Path. IEEE Transactions on Signal Processing, 2018, 66, 5718-5729.	3.2	40
74	SISO RIS-Enabled Joint 3D Downlink Localization and Synchronization. , 2021, , .		39
75	Hybrid GNSS-Terrestrial Cooperative Positioning Based on Particle Filter. , 2011, , .		38
76	Single-Anchor Two-Way Localization Bounds for 5G mmWave Systems. IEEE Transactions on Vehicular Technology, 2020, 69, 6388-6400.	3.9	37
77	5G SLAM Using the Clustering and Assignment Approach with Diffuse Multipath. Sensors, 2020, 20, 4656.	2.1	36
78	UWB Positioning with Generalized Gaussian Mixture Filters. IEEE Transactions on Mobile Computing, 2014, 13, 2406-2414.	3.9	35
79	Wireless network positioning as a convex feasibility problem. Eurasip Journal on Wireless Communications and Networking, 2011, 2011, .	1.5	34
80	5G mm Wave Downlink Vehicular Positioning. , 2018, , .		34
81	Positioning and Sensing for Vehicular Safety Applications in 5G and Beyond. IEEE Communications Magazine, 2021, 59, 15-21.	4.9	34
82	Vehicle-to-Vehicle Communications with Urban Intersection Path Loss Models. , 2016, , .		33
83	Joint Localization and Mapping Through Millimeter Wave MIMO in 5G Systems. , 2018, , .		33
84	Self-Aware Swarm Navigation in Autonomous Exploration Missions. Proceedings of the IEEE, 2020, 108, 1168-1195.	16.4	33
85	Novel Algorithms for High-Accuracy Joint Position and Orientation Estimation in 5G mmWave Systems. , 2017, , .		32
86	Link-Level Resource Allocation for Flexible-Grid Nonlinear Fiber-Optic Communication Systems. IEEE Photonics Technology Letters, 2015, 27, 1250-1253.	1.3	31
87	RIS-Enabled Localization Continuity Under Near-Field Conditions. , 2021, , .		30
88	Localization via Multiple Reconfigurable Intelligent Surfaces Equipped With Single Receive RF Chains. IEEE Wireless Communications Letters, 2022, 11, 1072-1076.	3.2	30
89	Fundamental Limits of Wideband Cooperative Localization via Fisher Information. , 2007, , .		29
90	Code-aided frame synchronization and phase ambiguity resolution. IEEE Transactions on Signal Processing, 2006, 54, 2747-2757.	3.2	28

#	Article	IF	Citations
91	Downlink Single-Snapshot Localization and Mapping With a Single-Antenna Receiver. IEEE Transactions on Wireless Communications, 2021, 20, 4672-4684.	6.1	28
92	Joint Assignment of Power, Routing, and Spectrum in Static Flexible-Grid Networks. Journal of Lightwave Technology, 2017, 35, 1766-1774.	2.7	27
93	Radar Communications for Combating Mutual Interference of FMCW Radars. , 2019, , .		27
94	Decentralized Scheduling for Cooperative Localization With Deep Reinforcement Learning. IEEE Transactions on Vehicular Technology, 2019, 68, 4295-4305.	3.9	27
95	RIS-Aided Joint Localization and Synchronization with a Single-Antenna Mmwave Receiver. , 2021, , .		27
96	Semi-Passive 3D Positioning of Multiple RIS-Enabled Users. IEEE Transactions on Vehicular Technology, 2021, 70, 11073-11077.	3.9	26
97	Beyond 5G RIS mmWave Systems: Where Communication and Localization Meet. IEEE Access, 2022, 10, 68075-68084.	2.6	26
98	On Maximum-Likelihood Timing Synchronization. IEEE Transactions on Communications, 2007, 55, 1116-1119.	4.9	25
99	Network traffic flow optimization under performance constraints. Transportation Research Part C: Emerging Technologies, 2017, 83, 120-133.	3.9	25
100	Multisensor Poisson Multi-Bernoulli Filter for Joint Targetâ€“Sensor State Tracking. IEEE Transactions on Intelligent Vehicles, 2019, 4, 609-621.	9.4	25
101	Challenges for cooperative ITS: Improving road safety through the integration of wireless communications, control, and positioning. , 2015, , .		24
102	Variational Inference-Based Positioning with Nondeterministic Measurement Accuracies and Reference Location Errors. IEEE Transactions on Mobile Computing, 2017, 16, 2955-2969.	3.9	24
103	Optimisation-based coordination of connected, automated vehicles at intersections. Vehicle System Dynamics, 2020, 58, 726-747.	2.2	23
104	Millimeter-Wave Mobile Sensing and Environment Mapping: Models, Algorithms and Validation. IEEE Transactions on Vehicular Technology, 2022, 71, 3900-3916.	3.9	22
105	Cooperative Bayesian Self-Tracking for Wireless Networks. IEEE Communications Letters, 2008, 12, 505-507.	2.5	21
106	Convergence Comparison of the CMA and ICA for Blind Polarization Demultiplexing. Journal of Optical Communications and Networking, 2011, 3, 493.	3.3	21
107	Monte carlo equalization for nonlinear dispersive satellite channels. IEEE Journal on Selected Areas in Communications, 2008, 26, 245-255.	9.7	20
108	On the Trade-Off Between Accuracy and Delay in Cooperative UWB Localization: Performance Bounds and Scaling Laws. IEEE Transactions on Wireless Communications, 2014, 13, 4574-4585.	6.1	20

#	Article	IF	Citations
109	Tracking Position and Orientation Through Millimeter Wave Lens MIMO in 5G Systems. IEEE Signal Processing Letters, 2019, 26, 1222-1226.	2.1	20
110	Distributed Direct Localization Suitable for Dense Networks. IEEE Transactions on Aerospace and Electronic Systems, 2020, 56, 1209-1227.	2.6	20
111	Synchronization and Localization in Wireless Networks. Foundations and Trends in Signal Processing, 2018, 12, 1-106.	12.0	19
112	5G Synchronization, Positioning, and Mapping From Diffuse Multipath. IEEE Wireless Communications Letters, 2021, 10, 43-47.	3.2	19
113	Uniformly reweighted belief propagation: A factor graph approach. , 2011, , .		18
114	5G mmWave Vehicular Tracking. , 2018, , .		18
115	Residual Neural Networks for Digital Predistortion. , 2020, , .		18
116	Hybrid GNSS-Terrestrial Cooperative Positioning via Distributed Belief Propagation. , 2010, , .		17
117	Censored cooperative positioning for dense wireless networks. , 2010, , .		17
118	An ML-Based Detector for Optical Communication in the Presence of Nonlinear Phase Noise. , 2011, , .		17
119	Location-Aided Pilot Contamination Elimination for Massive MIMO Systems. , 2015, , .		17
120	On the resource allocation problem in wireless networked control systems. , 2017, , .		17
121	High-Accuracy Joint Position and Orientation Estimation in Sparse 5G mmWave Channel. , 2019, , .		17
122	Decentralized Poisson Multi-Bernoulli Filtering for Vehicle Tracking. IEEE Access, 2020, 8, 126414-126427.	2.6	17
123	Turbo Estimation and Equalization for Asynchronous Uplink MC-CDMA. IEEE Transactions on Wireless Communications, 2008, 7, 1217-1226.	6.1	16
124	Cooperative anchor-less localization for large dynamic networks. , 2008, , .		16
125	Nonlinear Impairment Aware Resource Allocation in Elastic Optical Networks. , 2015, , .		16
126	Optimal Scheduling of Downlink Communication for a Multi-Agent System With a Central Observation Post. , 2018, 2, 37-42.		16

#	Article	IF	Citations
127	Robust trajectory planning of autonomous vehicles at intersections with communication impairments. , 2019, , .		16
128	Low-Complexity Accurate Mmwave Positioning for Single-Antenna Users Based on Angle-of-Departure and Adaptive Beamforming. , 2020, , .		16
129	Leveraging Location Information for RIS-Aided mmWave MIMO Communications. IEEE Wireless Communications Letters, 2021, 10, 1380-1384.	3.2	16
130	Cooperative Localization in Wireless Sensor Networks With AOA Measurements. IEEE Transactions on Wireless Communications, 2022, 21, 6760-6773.	6.1	16
131	Code-aided ML joint synchronization and channel estimation for downlink MC-CDMA. IEEE Journal on Selected Areas in Communications, 2006, 24, 1105-1114.	9.7	15
132	Cooperative simultaneous localization and synchronization: A distributed hybrid message passing algorithm. , 2013, , .		15
133	Performance of location and orientation estimation in 5G mmWave systems: Uplink vs downlink. , 2018, , .		15
134	Power Allocation and Parameter Estimation for Multipath-Based 5G Positioning. IEEE Transactions on Wireless Communications, 2021, 20, 7302-7316.	6.1	15
135	Radar Sensing with OTFS: Embracing ISI and ICI to Surpass the Ambiguity Barrier. , 2021, , .		15
136	Learning to Estimate RIS-Aided mmWave Channels. IEEE Wireless Communications Letters, 2022, 11, 841-845.	3.2	15
137	Iterative Code-Aided ML Phase Estimation and Phase Ambiguity Resolution. Eurasip Journal on Advances in Signal Processing, 2005, 2005, 1.	1.0	14
138	On the position error bound in cooperative networks: A geometric approach. , 2008, , .		14
139	Outage Behavior of Cooperative Diversity with Relay Selection. , 2008, , .		14
140	Nonparametric Obstruction Detection for UWB Localization. , 2009, , .		14
141	An experimental study of UWB device-free person detection and ranging. , 2013, , .		14
142	Tensor Decomposition Based Beamspace ESPRIT for Millimeter Wave MIMO Channel Estimation. , 2018, , .		14
143	Performance Analysis of Hybrid 5G-GNSS Localization. , 2018, , .		14
144	Collision-Aware Communication for Intersection Management of Automated Vehicles. IEEE Access, 2018, 6, 77359-77371.	2.6	14

#	Article	IF	Citations
145	Beyond GNSS: Highly accurate localization for cooperative-intelligent transport systems. , 2018, , .		14
146	Optimal Spatial Signal Design for mmWave Positioning Under Imperfect Synchronization. IEEE Transactions on Vehicular Technology, 2022, 71, 5558-5563.	3.9	14
147	On the Trade-off Between Accuracy and Delay in UWB Navigation. IEEE Communications Letters, 2013, 17, 39-42.	2.5	13
148	Simultaneous localization and tracking via real-time nonparametric belief propagation. , 2013, , .		13
149	On the trade-off between accuracy and delay in cooperative UWB navigation. , 2013, , .		13
150	On nonlinearly-induced noise in single-channel optical links with digital backpropagation. Optics Express, 2013, 21, 26376.	1.7	13
151	Cooperative simultaneous localization and tracking (coslat) with reduced complexity and communication. , 2013, , .		13
152	Communication analysis for centralized intersection crossing coordination. , 2014, , .		13
153	Traffic-adaptive signal control and vehicle routing using a decentralized back-pressure method. , 2015, , .		13
154	Comparison of different beamtraining strategies from a rate-positioning trade-off perspective. , 2017, , .		13
155	Remote control of automated vehicles over unreliable channels. , 2018, , .		13
156	Multi-Panel Sparse Base Station Design With Physical Antenna Effects in Massive MU-MIMO. IEEE Transactions on Vehicular Technology, 2020, 69, 6500-6510.	3.9	13
157	Tensor Decomposition-based Beamspace Esprit Algorithm for Multidimensional Harmonic Retrieval. , 2020, , .		13
158	Maximum-Likelihood-Based Blind Dispersion Estimation for Coherent Optical Communication. Journal of Lightwave Technology, 2012, 30, 2976-2982.	2.7	12
159	On proactive caching with demand and channel uncertainties. , 2015, , .		12
160	Localization Error Bounds for 5G mmWave Systems Under I/Q Imbalance. IEEE Transactions on Vehicular Technology, 2020, 69, 7971-7975.	3.9	12
161	High-dimensional Channel Estimation for Simultaneous Localization and Communications. , 2021, , .		12
162	Comparison of Automotive FMCW and OFDM Radar Under Interference. , 2020, , .		12

#	Article	IF	Citations
163	A Computationally Efficient EK-PMBM Filter for Bistatic mmWave Radio SLAM. IEEE Journal on Selected Areas in Communications, 2022, 40, 2179-2192.	9.7	12
164	Smart Wireless Environments Enabled by RISs: Deployment Scenarios and Two Key Challenges. , 2022, , .		12
165	Optimized edge appearance probability for cooperative localization based on tree-reweighted nonparametric belief propagation. , 2011, , .		11
166	Cooperative multipath-aided indoor localization. , 2012, , .		11
167	WiP abstract: Reception probability model for vehicular ad-hoc networks in the vicinity of intersections. , 2014, , .		11
168	Fine-Grained vs. Average Reliability for V2V Communications around Intersections. , 2017, , .		11
169	A Timer-Based Distributed Channel Access Mechanism in Networked Control Systems. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 652-656.	2.2	11
170	5G Downlink Multi-Beam Signal Design for LOS Positioning. , 2019, , .		11
171	Performance Analysis for Autonomous Vehicle 5g-Assisted Positioning in GNSS-Challenged Environments. , 2020, , .		11
172	Arbitrary Beam Pattern Approximation via RISs with Measured Element Responses. , 2022, , .		11
173	Linear Precoders for Bit-Interleaved Coded Modulation on AWGN Channels: Analysis and Design Criteria. IEEE Transactions on Information Theory, 2008, 54, 87-99.	1.5	10
174	Robust distributed positioning algorithms for cooperative networks. , 2011, , .		10
175	Cooperative simultaneous localization and synchronization: Toward a low-cost hardware implementation. , 2014, , .		10
176	Stochastic Digital Backpropagation With Residual Memory Compensation. Journal of Lightwave Technology, 2016, 34, 566-572.	2.7	10
177	Power Allocation for OFDM Wireless Network Localization Under Expectation and Robustness Constraints. IEEE Transactions on Wireless Communications, 2017, 16, 2027-2038.	6.1	10
178	Transmitter Beam Selection in Millimeter-Wave MIMO With In-Band Position-Aiding. IEEE Transactions on Wireless Communications, 2018, 17, 6082-6092.	6.1	10
179	Cooperative localization of vehicles without inter-vehicle measurements. , 2018, , .		10
180	Over-the-fiber Digital Predistortion Using Reinforcement Learning. , 2021, , .		10

#	Article	IF	Citations
181	Low-Complexity Downlink Channel Estimation in mmWave Multiple-Input Single-Output Systems. IEEE Wireless Communications Letters, 2022, 11, 518-522.	3.2	10
182	Low Complexity Joint Impairment Mitigation of I/Q Modulator and PA Using Neural Networks. IEEE Journal on Selected Areas in Communications, 2022, 40, 54-64.	9.7	10
183	On Channel Parameter Estimation in a Spaceâ€“Time Bit-Interleaved-Coded Modulation System for Multipath DS-CDMA Uplink With Receive Diversity. IEEE Transactions on Vehicular Technology, 2005, 54, 1747-1758.	3.9	9
184	SNR analysis for multi-rate UWB-IR. IEEE Communications Letters, 2007, 11, 49-51.	2.5	9
185	Bayesian outlier detection in location-aware wireless networks. , 2011, , .		9
186	On geometric upper bounds for positioning algorithms in wireless sensor networks. Signal Processing, 2015, 111, 179-193.	2.1	9
187	Fast in-Band Position-Aided Beam Selection in Millimeter-Wave MIMO. IEEE Access, 2019, 7, 142325-142338.	2.6	9
188	Pilot-Aided Joint-Channel Carrier-Phase Estimation in Space-Division Multiplexed Multicore Fiber Transmission. Journal of Lightwave Technology, 2019, 37, 1133-1142.	2.7	9
189	Learning Physical-Layer Communication With Quantized Feedback. IEEE Transactions on Communications, 2020, 68, 645-653.	4.9	9
190	An Uncertainty-Aware Performance Measure for Multi-Object Tracking. IEEE Signal Processing Letters, 2021, 28, 1689-1693.	2.1	9
191	Distributed Radar-aided Vehicle-to-Vehicle Communication. , 2020, , .		9
192	Model-Based End-to-End Learning for WDM Systems With Transceiver Hardware Impairments. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-14.	1.9	9
193	Next Generation Multitarget Trackers: Random Finite Set Methods vs Transformer-based Deep Learning. , 2021, , .		9
194	6G Radio Requirements to Support Integrated Communication, Localization, and Sensing. , 2022, , .		9
195	Localization in mobile wireless and sensor networks. Eurasip Journal on Wireless Communications and Networking, 2011, 2011, .	1.5	8
196	Comparison of message passing algorithms for cooperative localization under NLOS conditions. , 2012, , .		8
197	Distributed Bounding of Feasible Sets in Cooperative Wireless Network Positioning. IEEE Communications Letters, 2013, 17, 1596-1599.	2.5	8
198	Location-Aware Formation Control in Swarm Navigation. , 2015, , .		8

#	Article	IF	Citations
199	Distributed Two-Way Localization Bounds for 5G mmWave Systems. , 2018, , .		8
200	Localization Optimal Multi-user Beamforming with multi-carrier mmWave MIMO. , 2018, , .		8
201	Guest Editorial: Introduction to the Special Section on Machine Learning-Based Internet of Vehicles: Theory, Methodology, and Applications. IEEE Transactions on Vehicular Technology, 2019, 68, 4105-4109.	3.9	8
202	Localization and Throughput Trade-Off in a Multi-User Multi-Carrier mm-Wave System. IEEE Access, 2019, 7, 167099-167112.	2.6	8
203	A Fisher Information Analysis of Joint Localization and Synchronization in near Field. , 2020, , .		8
204	Low-Complexity 5g Slam with CKF-PHD Filter. , 2020, , .		8
205	Impact of Rough Surface Scattering on Stochastic Multipath Component Models. , 2018, , .		7
206	Theoretical Limits on Cooperative Positioning in Mixed Traffic. IEEE Access, 2019, 7, 49712-49725.	2.6	7
207	Cooperative Localization with Angular Measurements and Posterior Linearization. , 2020, , .		7
208	Adaptive Detection Probability for mmWave 5G SLAM. , 2020, , .		7
209	Packet Reception Probabilities in Vehicular Communications Close to Intersections. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 2823-2833.	4.7	7
210	Stochastic Backpropagation for Coherent Optical Communications. , 2011, , .		7
211	End-to-end Autoencoder for Superchannel Transceivers with Hardware Impairment. , 2021, , .		7
212	Benchmarking and Interpreting End-to-End Learning of MIMO and Multi-User Communication. IEEE Transactions on Wireless Communications, 2022, 21, 7287-7298.	6.1	7
213	Periodicity-Enabled Size Reduction of Symbol Based Predistortion for High-Order QAM. Journal of Lightwave Technology, 2022, 40, 6168-6178.	2.7	7
214	MAC delay in belief consensus for distributed tracking. , 2013, , .		6
215	Simultaneous routing and power allocation using location information. , 2013, , .		6
216	Robust power allocation for OFDM wireless network localization. , 2015, , .		6

#	Article	IF	Citations
217	Random-Phase Beamforming for Initial Access in Millimeter-Wave Cellular Networks. , 2016, , .		6
218	Enhanced vehicle positioning in cooperative ITS by joint sensing of passive features. , 2017, , .		6
219	Impact of imperfect beam alignment on the rate-positioning trade-off. , 2018, , .		6
220	Timer-Based Distributed Channel Access in Networked Control Systems over Known and Unknown Gilbert-Elliott Channels. , 2019, , .		6
221	Pilot Distributions for Joint-Channel Carrier-Phase Estimation in Multichannel Optical Communications. Journal of Lightwave Technology, 2020, 38, 4656-4663.	2.7	6
222	ICI-Aware Parameter Estimation for Mimo-Ofdm Radar via Apes Spatial Filtering. , 2021, , .		6
223	Ris-Aided mmWave MIMO Radar System for Adaptive Multi-Target Localization. , 2021, , .		6
224	mmWave Simultaneous Localization and Mapping Using a Computationally Efficient EK-PHD Filter. , 2021, , .		6
225	Low Complexity MIMO Detection Based on the Slowest Descent Method. IEEE Communications Letters, 2007, 11, 429-431.	2.5	5
226	MAP-Based Code-Aided Hypothesis Testing. IEEE Transactions on Wireless Communications, 2008, 7, 2856-2860.	6.1	5
227	Code-Aided Maximum-Likelihood Ambiguity Resolution Through Free-Energy Minimization. IEEE Transactions on Signal Processing, 2010, 58, 6238-6250.	3.2	5
228	The impact of self-phase modulation on digital clock recovery in coherent optical communication. , 2010, , .		5
229	Uniformly reweighted belief propagation for distributed Bayesian hypothesis testing. , 2011, , .		5
230	Factor graph based detection approach for high-mobility OFDM systems with large FFT modes. Eurasip Journal on Wireless Communications and Networking, 2012, 2012, .	1.5	5
231	On maximum likelihood sequence detectors for single-channel coherent optical communications. , 2014, , .		5
232	Code rate optimization in elastic optical networks. , 2015, , .		5
233	LAPRA: Location-Aware Proactive Resource Allocation. , 2016, , .		5
234	An Asynchronous Algorithm for Optimal Vehicle Coordination at Traffic Intersections * *This work was supported by Copplar (project number 32226302), the Swedish Research Council (VR, grant number) Tj ETQq0 0 0 rgBT /Overlock 1 IFAC-PapersOnLine, 2017, 50, 12008-12014.	0.5	5

#	Article	IF	Citations
235	Pilot Distributions for Phase Tracking in Space-Division Multiplexed Systems. , 2017, , .		5
236	Improved Pedestrian Detection under Mutual Interference by FMCW Radar Communications. , 2018, , .		5
237	Stepped-Carrier OFDM V2V Resource Allocation for Sensing and Communication Convergence. , 2020, , .		5
238	Joint CKF-PHD Filter and Map Fusion for 5G Multi-cell SLAM. , 2020, , .		5
239	Autoencoder-Based Unequal Error Protection Codes. IEEE Communications Letters, 2021, 25, 3575-3579.	2.5	5
240	Sensitivity Comparison of Time Domain Hybrid Modulation and Rate Adaptive Coding. , 2016, , .		5
241	Phase-Noise Compensation for Spatial-Division Multiplexed Transmission. , 2017, , .		5
242	CramÃ©r-Rao Bound Analysis of Radars for Extended Vehicular Targets With Known and Unknown Shape. IEEE Transactions on Signal Processing, 2022, 70, 3280-3295.	3.2	5
243	Code-aided joint channel and frequency offset estimation for DS-CDMA. IEEE Journal on Selected Areas in Communications, 2006, 24, 181-189.	9.7	4
244	Code-aided Bayesian parameter estimation for multi-carrier systems. European Transactions on Telecommunications, 2006, 17, 639-650.	1.2	4
245	Soft Electrical Equalization for Optical Channels. , 2008, , .		4
246	A network traffic reduction method for cooperative positioning. , 2011, , .		4
247	MCRB for Timing and Phase Offset for Low-Rate Optical Communication with Self-Phase Modulation. IEEE Communications Letters, 2013, 17, 1004-1007.	2.5	4
248	Multiple access control in wireless networks. , 2016, , 435-465.		4
249	Channel gain prediction for multi-agent networks in the presence of location uncertainty. , 2016, , .		4
250	Compressed Sensing in Wireless Sensor Networks Without Explicit Position Information. IEEE Transactions on Signal and Information Processing Over Networks, 2017, 3, 404-415.	1.6	4
251	Channel Prediction With Location Uncertainty for Ad Hoc Networks. IEEE Transactions on Signal and Information Processing Over Networks, 2018, 4, 349-361.	1.6	4
252	Buffer-Aided Model Predictive Controller to Mitigate Model Mismatches and Localization Errors. IEEE Transactions on Intelligent Vehicles, 2018, 3, 501-510.	9.4	4

#	Article	IF	Citations
253	Multiple Target Tracking With Uncertain Sensor State Applied To Autonomous Vehicle Data. , 2018, , .		4
254	Novel Solution for Multi-connectivity 5G-mmW Positioning. , 2018, , .		4
255	Toward a Standard-Compliant Implementation for Consensus Algorithms in Vehicular Networks. , 2018, , .		4
256	Improved Lower Bounds on Mutual Information Accounting for Nonlinear Signalâ€“Noise Interaction. Journal of Lightwave Technology, 2018, 36, 5152-5159.	2.7	4
257	Iterative Detection and Phase-Noise Compensation for Coded Multichannel Optical Transmission. IEEE Transactions on Communications, 2019, 67, 5532-5543.	4.9	4
258	Timer-Based Distributed Channel Access for Control Over Unknown Unreliable Time-Varying Communication Channels. , 2019, , .		4
259	3D Orientation Estimation with Multiple 5G mmWave Base Stations. , 2021, , .		4
260	Resource Allocation in Nonlinear Flexible-Grid Fiber-Optic Networks. , 2015, , .		4
261	Multi-rate receiver design with IF sampling and digital timing correction. , 2003, , .		3
262	Multi-rate receivers with IF sampling and digital timing correction. Signal Processing, 2004, 84, 2067-2079.	2.1	3
263	Multi-dimensional modulation for UWB communications. , 0, , .		3
264	Convergence comparison of CMA and ICA for blind polarization demultiplexing of QPSK and 16-QAM signals. , 2010, , .		3
265	Upper bounds on position error of a single location estimate in wireless sensor networks. Eurasip Journal on Advances in Signal Processing, 2014, 2014, .	1.0	3
266	Experimental demonstration of the maximum likelihood-based chromatic dispersion estimator for coherent receivers. Optical Fiber Technology, 2014, 20, 158-162.	1.4	3
267	Joint scheduling and localization in UWB networks. , 2015, , .		3
268	On the separation of timescales in radio-based positioning. , 2015, , .		3
269	Cooperative Intersection Collision Avoidance in a Constrained Communication Environment. , 2015, , .		3
270	Guest Editorial Location-Awareness for Radios and Networks, Part I. IEEE Journal on Selected Areas in Communications, 2015, 33, 1285-1287.	9.7	3

#	Article	IF	Citations
271	Tight Two-Dimensional Outer-Approximations of Feasible Sets in Wireless Sensor Networks. IEEE Communications Letters, 2016, 20, 570-573.	2.5	3
272	Predictive resource allocation evaluation with real channel measurements. , 2017, , .		3
273	Delayâ€“Accuracy Tradeoff in Opportunistic Time-of-Arrival Localization. IEEE Signal Processing Letters, 2018, 25, 763-767.	2.1	3
274	Impact of Communication Frequency on Remote Control of Automated Vehicles. , 2018, , .		3
275	5G multi-BS Positioning with a Single-Antenna Receiver. , 2020, , .		3
276	Application of the Free Energy Principle to Estimation and Control. IEEE Transactions on Signal Processing, 2021, 69, 4234-4244.	3.2	3
277	Communication Scheduling by Deep Reinforcement Learning for Remote Traffic State Estimation With Bayesian Inference. IEEE Transactions on Vehicular Technology, 2022, 71, 4287-4300.	3.9	3
278	Interleaved coded modulation for non-binary codes: a factor graph approach. , 2004, , .		2
279	A Novel MIMO Detection Scheme with Linear Complexity. , 2007, , .		2
280	Cooperative localization with 802.15.4a CSS radios: Robustness to node failures. , 2012, , .		2
281	Locally-optimized reweighted belief propagation for decoding finite-length LDPC codes. , 2013, , .		2
282	The impact of cooperative localization on achieving higher-level goals. , 2013, , .		2
283	Location-Aided Pilot Contamination Elimination for Massive MIMO Systems. , 2014, , .		2
284	Multi-step sensor selection with position uncertainty constraints. , 2014, , .		2
285	Backward particle message passing. , 2015, , .		2
286	On the Use of Factor Graphs in Optical Communications. , 2015, , .		2
287	Blind sub-Nyquist GNSS signal detection. , 2016, , .		2
288	Localization and communication resource budgeting for multi-user mm-Wave MIMO. , 2019, , .		2

#	Article	IF	Citations
289	5G SLAM with Low-complexity Channel Estimation. , 2021, , .		2
290	Position Information From Reflecting Surfaces. IEEE Wireless Communications Letters, 2021, 10, 1300-1304.	3.2	2
291	Synchronization-Free RadChat for Automotive Radar Interference Mitigation. Sustainability, 2021, 13, 6891.	1.6	2
292	Indoor Mapping with a Mobile Radar Using an EK-PHD Filter. , 2021, , .		2
293	Code-Aided ML Joint Delay Estimation and Frame Synchronization. , 2005, , 97-110.		1
294	Uplink acquisition of a new user accessing a fixed wireless DS-CDMA system. , 0, , .		1
295	Estimation theory and Monte Carlo techniques. , 0, , 19-34.		1
296	Equalizationâ€“general formulation. , 0, , 187-206.		1
297	Operational regime of symbol-by-symbol phase noise estimation for POLMUX 16-QAM. , 2010, , .		1
298	CMA misconvergence in coherent optical communication for signals generated from a single PRBS. , 2011, , .		1
299	Novel ICI suppressing receiver for high-mobility DVB-T2 reception with large FFT modes. , 2011, , .		1
300	Modified CramÃ©râ€“Rao Bound for Clock Recovery in the Presence of Self-Phase Modulation. Journal of Lightwave Technology, 2012, 30, 2556-2561.	2.7	1
301	Robust link scheduling with channel estimation and location information. , 2013, , .		1
302	Comparison of reweighted message passing algorithms for LDPC decoding. , 2013, , .		1
303	Distributed compressed sensing for sensor networks with packet erasures. , 2014, , .		1
304	Guest Editorial Location-Awareness for Radios and Networks, Part II. IEEE Journal on Selected Areas in Communications, 2015, 33, 2269-2271.	9.7	1
305	Power optimization in nonlinear flexible-grid optical networks. , 2015, , .		1
306	Cooperative localization with information-seeking control. , 2015, , .		1

#	Article	IF	Citations
307	MULTI-POS: Lessons Learnt from Fellows and Supervisors. , 2017, , 323-329.		1
308	A comparison of Bayesian localization methods in the presence of outliers. , 2017, , .		1
309	Traffic flow optimization with QoS constrained network admission control * *This research is supported by Chalmersâ€™ initiatives in transport research, the Transport Area of Advance at Chalmers University of Technology and SAFER (Vehicle and Traffic Safety Centre) and by the National Research, Development and Innovation Office of Hungary - NKFIH through grant No. 115694.. IFAC-PapersOnLine, 2017, 50, 5275-5280.	0.5	1
310	Distributed channel prediction for multi-agent systems. , 2017, , .		1
311	Joint Phase Tracking for Multicore Transmission with Correlated Phase Noise. , 2018, , .		1
312	Optimizing the mmWave Channel Estimation Duration by Rate Prediction. IEEE Communications Letters, 2021, 25, 555-559.	2.5	1
313	Direction Aided Multipath Channel Estimation for Millimeter Wave Systems. , 2021, , .		1
314	Measurement of the Phase Noise Tracking Capability of a Digital Coherent Receiver. , 2011, , .		1
315	Can Automotive Radars Form Vehicular Networks?. , 2020, , .		1
316	mmWave Mapping using PHD with Smoothed Track Confirmation and Multi-Bounce Suppression. , 2022, , .		1
317	Low-complexity code-aided estimation techniques for multi-user DS-CDMA systems. , 2005, , .		0
318	Design Criteria for Linear Precoders based on a Bitwise Capacity Argument. , 2006, , .		0
319	Digital communication. , 0, , 5-18.		0
320	Statistical inference using factor graphs. , 0, , 77-104.		0
321	Decoding. , 0, , 143-176.		0
322	Demapping. , 0, , 177-186.		0
323	Equalization: single-user, single-antenna communication. , 0, , 207-216.		0
324	Equalization: multi-antenna communication. , 0, , 217-226.		0

#	Article	IF	Citations
325	Equalization: multi-user communication. , 0, , 227-236.		0
326	State-space models. , 0, , 105-134.		0
327	Factor graphs and the sumâ€“product algorithm. , 0, , 35-76.		0
328	Synchronization and channel estimation. , 0, , 237-242.		0
329	SNR Analysis of Multi-Rate IR-UWB over Frequency-Selective Channels. , 2007, , .		0
330	Factor graphs in digital communication. , 0, , 135-142.		0
331	The impact of polarization-dependent loss on the constant modulus algorithm for varying number of fiber spans based on an outage criterion. , 2011, , .		0
332	Optimized iterative (turbo) reception for QAM OFDM with CFO over unknown double-selective channels. , 2011, , .		0
333	The Limits of Digital Backpropagation in Nonlinear Coherent Fiber-Optical Links. , 2012, , .		0
334	Signal processing techniques for anywhere, anytime positioning. Eurasip Journal on Advances in Signal Processing, 2014, 2014, .	1.0	0
335	Stochastic Digital Backpropagation: Unifying Digital Backpropagation and the MAP Criterion. , 2014, , .		0
336	Hybrid Cooperative Positioning in Harsh Environments. , 2015, , .		0
337	Formation Control of Multi-Agent Systems with Location Uncertainty. , 2017, , 197-215.		0
338	Introduction and Book Structure. , 2017, , 1-4.		0
339	A novel approach for ellipsoidal outer-approximation of the intersection region of ellipses in the plane. Computational Optimization and Applications, 2018, 69, 383-402.	0.9	0
340	On the Performance of Joint-Core Carrier-Phase Estimation in the Presence of Intercore Skew. Journal of Lightwave Technology, 2019, 37, 5291-5298.	2.7	0
341	Simultaneous Localization and Mapping in Millimeter Wave Networks with Angle Measurements. , 2020, , .		0
342	Optimization of Transmitter-Side Signal Rotations in the Presence of Laser Phase Noise. Journal of Lightwave Technology, 2020, 38, 3850-3858.	2.7	0

#	Article	IF	Citations
343	Radar Interference Mitigation through Active Coordination. , 2021, , .		0
344	Localization With Distributed MIMO Using a High-Speed Sigma-Delta-Over-Fiber Testbed. IEEE Microwave and Wireless Components Letters, 2022, 32, 923-926.	2.0	0
345	Optimized Switching Between Sensing and Communication for mmWave MU-MISO Systems. , 2022, , .		0