

Nir Shlezinger

List of Publications by Year in descending order

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105
papers

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citations

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105
docs citations

105
times ranked

1217
citing authors

#	ARTICLE	IF	CITATIONS
1	Learned Factor Graphs for Inference From Stationary Time Sequences. IEEE Transactions on Signal Processing, 2022, 70, 366-380.	5.3	15
2	KalmanNet: Neural Network Aided Kalman Filtering for Partially Known Dynamics. IEEE Transactions on Signal Processing, 2022, 70, 1532-1547.	5.3	88
3	CNN-Aided Factor Graphs with Estimated Mutual Information Features for Seizure Detection. , 2022, , .		3
4	Federated Learning: A signal processing perspective. IEEE Signal Processing Magazine, 2022, 39, 14-41.	5.6	48
5	Deep-Learning-Assisted Configuration of Reconfigurable Intelligent Surfaces in Dynamic Rich-Scattering Environments. , 2022, , .		5
6	Symbol-Level Online Channel Tracking for Deep Receivers. , 2022, , .		3
7	On the Acquisition of Stationary Signals Using Uniform ADCs. , 2022, , .		1
8	Recovery of Noisy Pooled Tests via Learned Factor Graphs with Application to COVID-19 Testing. , 2022, , .		2
9	RTSNet: Deep Learning Aided Kalman Smoothing. , 2022, , .		6
10	Power-Efficient Hybrid MIMO Receiver with Task-Specific Beamforming using Low-Resolution ADCs. , 2022, , .		8
11	Wideband Multi-User MIMO Communications with Frequency Selective RISs: Element Response Modeling and Sum-Rate Maximization. , 2022, , .		10
12	UVeQFed: Universal Vector Quantization for Federated Learning. IEEE Transactions on Signal Processing, 2021, 69, 500-514.	5.3	100
13	BiLiMO: Bit-Limited MIMO Radar via Task-Based Quantization. IEEE Transactions on Signal Processing, 2021, 69, 6267-6282.	5.3	9
14	Over-the-Air Federated Learning From Heterogeneous Data. IEEE Transactions on Signal Processing, 2021, 69, 3796-3811.	5.3	86
15	Serial Quantization for Sparse Time Sequences. IEEE Transactions on Signal Processing, 2021, 69, 3299-3314.	5.3	2
16	Deep Task-Based Quantization. Entropy, 2021, 23, 104.	2.2	30
17	Energy Harvesting via Analog-to-Digital Conversion. , 2021, , .		0
18	DeepSIC: Deep Soft Interference Cancellation for Multiuser MIMO Detection. IEEE Transactions on Wireless Communications, 2021, 20, 1349-1362.	9.2	60

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19	Spatial Modulation for Joint Radar-Communications Systems: Design, Analysis, and Hardware Prototype. IEEE Transactions on Vehicular Technology, 2021, 70, 2283-2298.	6.3	52
20	Dynamic Metasurface Antennas for 6G Extreme Massive MIMO Communications. IEEE Wireless Communications, 2021, 28, 106-113.	9.0	151
21	Communication-efficient federated learning. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	120
22	Dynamic Metasurface Antennas for MIMO-OFDM Receivers With Bit-Limited ADCs. IEEE Transactions on Communications, 2021, 69, 2643-2659.	7.8	26
23	Beam Focusing for Multi-User MIMO Communications with Dynamic Metasurface Antennas. , 2021, , .		10
24	Meta-ViterbiNet: Online Meta-Learned Viterbi Equalization for Non-Stationary Channels. , 2021, , .		12
25	Kalmannet: Data-Driven Kalman Filtering. , 2021, , .		19
26	Bit Constrained Communication Receivers In Joint Radar Communications Systems. , 2021, , .		10
27	Multi-Level Group Testing with Application to One-Shot Pooled COVID-19 Tests. , 2021, , .		11
28	Hybrid Analog-Digital MIMO Radar Receivers With Bit-Limited ADCs. , 2021, , .		0
29	Model-Based Deep Learning: Key Approaches and Design Guidelines. , 2021, , .		16
30	Reconfigurable Intelligent Surfaces for Rich Scattering Wireless Communications: Recent Experiments, Challenges, and Opportunities. IEEE Communications Magazine, 2021, 59, 28-34.	6.1	80
31	Joint Resource Management and Model Compression for Wireless Federated Learning. , 2021, , .		4
32	Collaborative Inference via Ensembles on the Edge. , 2021, , .		16
33	Graph Signal Compression via Task-Based Quantization. , 2021, , .		3
34	Model-Inspired Deep Detection with Low-Resolution Receivers. , 2021, , .		2
35	Data-Driven Symbol Detection Via Model-Based Machine Learning. , 2021, , .		12
36	Fedrec: Federated Learning of Universal Receivers Over Fading Channels. , 2021, , .		5

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37	Task-Based Analog-to-Digital Converters. IEEE Transactions on Signal Processing, 2021, 69, 5403-5418.	5.3	12
38	LoRD-Net: Unfolded Deep Detection Network With Low-Resolution Receivers. IEEE Transactions on Signal Processing, 2021, 69, 5651-5664.	5.3	23
39	FRaC: FMCW-Based Joint Radar-Communications System Via Index Modulation. IEEE Journal on Selected Topics in Signal Processing, 2021, 15, 1348-1364.	10.8	46
40	Data-Driven Kalman-Based Velocity Estimation for Autonomous Racing. , 2021, , .		9
41	A reconfigurable intelligent surface with integrated sensing capability. Scientific Reports, 2021, 11, 20737.	3.3	57
42	Channel Estimation with Simultaneous Reflecting and Sensing Reconfigurable Intelligent Metasurfaces. , 2021, , .		10
43	Task-Based Analog-to-Digital Converters for Bandlimited Systems. , 2021, , .		1
44	A Hardware Prototype for Joint Radar-Communication System Using Spatial Modulation. , 2021, , .		0
45	Jointly Learned Symbol Detection and Signal Reflection in RIS-Aided Multi-user MIMO Systems. , 2021, , .		9
46	Efficient Epileptic Seizure Detection Using CNN-Aided Factor Graphs. , 2021, 2021, 424-429.		3
47	The Capacity of Memoryless Channels With Sampled Cyclostationary Gaussian Noise. IEEE Transactions on Communications, 2020, 68, 106-121.	7.8	4
48	A Block Sparsity Based Estimator for mmWave Massive MIMO Channels With Beam Squint. IEEE Transactions on Signal Processing, 2020, 68, 49-64.	5.3	47
49	Complexity Reduction Methods for Index Modulation Based Dual-Function Radar Communication Systems. , 2020, , .		2
50	A DFRC System Based on Multi-Carrier Agile FMCW MIMO Radar for Vehicular Applications. , 2020, , .		11
51	Theoretical Analysis of Multi-Carrier Agile Phased Array Radar. , 2020, , .		1
52	Multi-Carrier Agile Phased Array Radar. IEEE Transactions on Signal Processing, 2020, 68, 5706-5721.	5.3	27
53	The Communication-Aware Clustered Federated Learning Problem. , 2020, , .		18
54	Data-Driven Factor Graphs for Deep Symbol Detection. , 2020, , .		29

#	ARTICLE	IF	CITATIONS
55	Distributed Quantization for Sparse Time Sequences. , 2020, , .		1
56	Deep Soft Interference Cancellation for MIMO Detection. , 2020, , .		9
57	Federated Learning with Quantization Constraints. , 2020, , .		57
58	RF Chain Reduction for MIMO Systems: A Hardware Prototype. IEEE Systems Journal, 2020, 14, 5296-5307.	4.6	34
59	Automotive Dual-Function Radar Communications Systems: An Overview. , 2020, , .		5
60	Dynamic Metasurface Antennas for Bit-Constrained MIMO-OFDM Receivers. , 2020, , .		1
61	MAJoRCom: A Dual-Function Radar Communication System Using Index Modulation. IEEE Transactions on Signal Processing, 2020, 68, 3423-3438.	5.3	112
62	On the Rate-Distortion Function of Sampled Cyclostationary Gaussian Processes. Entropy, 2020, 22, 345.	2.2	1
63	Joint Radar-Communication Strategies for Autonomous Vehicles: Combining Two Key Automotive Technologies. IEEE Signal Processing Magazine, 2020, 37, 85-97.	5.6	222
64	Joint Transmit Beamforming for Multiuser MIMO Communications and MIMO Radar. IEEE Transactions on Signal Processing, 2020, 68, 3929-3944.	5.3	268
65	ViterbiNet: A Deep Learning Based Viterbi Algorithm for Symbol Detection. IEEE Transactions on Wireless Communications, 2020, 19, 3319-3331.	9.2	95
66	Learning Task-Based Analog-to-Digital Conversion for MIMO Receivers. , 2020, , .		12
67	COTAF: Convergent Over-the-Air Federated Learning. , 2020, , .		15
68	Data-driven symbol detection via model-based machine learning. Communications in Information and Systems, 2020, 20, 283-317.	0.5	19
69	Task-based quantization with application to MIMO receivers. Communications in Information and Systems, 2020, 20, 131-162.	0.5	19
70	Task-Based Quantization for Massive MIMO Channel Estimation. , 2019, , .		0
71	Spectral Efficiency of Noncooperative Uplink Massive MIMO Systems with Joint Decoding. , 2019, , .		2
72	Asymptotic Task-Based Quantization With Application to Massive MIMO. IEEE Transactions on Signal Processing, 2019, 67, 3995-4012.	5.3	34

#	ARTICLE	IF	CITATIONS
73	Dynamic Metasurface Antennas for Uplink Massive MIMO Systems. IEEE Transactions on Communications, 2019, 67, 6829-6843.	7.8	69
74	On the Capacity of Sampled Interference-Limited Communications Channels. , 2019, , .		0
75	Deep Quantization for MIMO Channel Estimation. , 2019, , .		10
76	Dynamic Metasurface Antennas Based Downlink Massive MIMO Systems. , 2019, , .		13
77	ViterbiNet: Symbol Detection Using a Deep Learning Based Viterbi Algorithm. , 2019, , .		37
78	A Dual-Function Radar Communication System Using Index Modulation. , 2019, , .		14
79	Hardware-Limited Task-Based Quantization. IEEE Transactions on Signal Processing, 2019, 67, 5223-5238.	5.3	51
80	Task-Based Quantization for Recovering Quadratic Functions Using Principal Inertia Components. , 2019, , .		25
81	Joint Sampling and Recovery of Correlated Sources. , 2019, , .		10
82	Dynamic Metasurfaces for Massive MIMO Networks. , 2019, , .		0
83	Multi-Carrier Agile Phased Array Radar. , 2019, , .		4
84	Deep Neural Network Symbol Detection for Millimeter Wave Communications. , 2019, , .		13
85	Serial Quantization for Representing Sparse Signals. , 2019, , .		3
86	Hardware-Limited Task-Based Quantization. , 2019, , .		11
87	On the Spectral Efficiency of Noncooperative Uplink Massive MIMO Systems. IEEE Transactions on Communications, 2019, 67, 1956-1971.	7.8	17
88	Performance analysis of LMS filters with non-Gaussian cyclostationary signals. Signal Processing, 2019, 154, 260-271.	3.7	8
89	Joint Estimation of Carrier Frequency Offset and Channel Impulse Response for Linear Periodic Channels. IEEE Transactions on Communications, 2018, 66, 302-319.	7.8	14
90	Correction to "On the Capacity of Narrowband PLC Channels". IEEE Transactions on Communications, 2018, 66, 461-461.	7.8	1

#	ARTICLE	IF	CITATIONS
91	Measurement Matrix Design for Phase Retrieval Based on Mutual Information. IEEE Transactions on Signal Processing, 2018, 66, 324-339.	5.3	7
92	Bounds on the Capacity of MIMO Broadband Power Line Communications Channels. , 2018, , .		0
93	On the Capacity of MIMO Broadband Power Line Communications Channels. IEEE Transactions on Communications, 2018, , 1-1.	7.8	12
94	The Secrecy Capacity of Gaussian MIMO Channels With Finite Memory. IEEE Transactions on Information Theory, 2017, 63, 1874-1897.	2.4	22
95	Adaptive Filtering Based on Time-Averaged MSE for Cyclostationary Signals. IEEE Transactions on Communications, 2017, 65, 1746-1761.	7.8	24
96	Joint carrier frequency offset and channel impulse response estimation for linear periodic channels. , 2017, , .		0
97	Using mutual information for designing the measurement matrix in phase retrieval problems. , 2017, , .		1
98	Carrier frequency offset estimation for linear channels with periodic characteristics. , 2016, , .		2
99	The capacity of discrete-time Gaussian MIMO channels with periodic characteristics. , 2016, , .		5
100	Adaptive LMS-type filter for cyclostationary signals. , 2016, , .		5
101	On the derivation of the capacity of discrete-time narrowband PLC channels. , 2015, , .		2
102	The secrecy capacity of MIMO Gaussian channels with finite memory. , 2015, , .		1
103	On the Capacity of Narrowband PLC Channels. IEEE Transactions on Communications, 2015, 63, 1191-1201.	7.8	52
104	Frequency-shift filtering for OFDM recovery in narrowband power line communications. , 2014, , .		0
105	Frequency-Shift Filtering for OFDM Signal Recovery in Narrowband Power Line Communications. IEEE Transactions on Communications, 2014, 62, 1283-1295.	7.8	42