Christian HÃ¤ger

List of Publications by Year
in descending order

40	692	9	14
papers	citations	h-index	g-index

1040056 (above h-index)
1058476 (above g-index)

40	40	40	459
all docs	docs citations	times ranked	citing authors

#	ARTICLE	IF	CITATIONS
1	Improving soft FEC performance for higher-order modulations via optimized bit channel mappings. Optics Express, 2014, 22, 14544.	3.4	67
2	Physics-Based Deep Learning for Fiber-Optic Communication Systems. IEEE Journal on Selected Areas in Communications, 2021, 39, 280-294.	14.0	51
3	Achievable Information Rates for Nonlinear Fiber Communication via End-to-end Autoencoder Learning. , 2018, , .		45
4	Design of APSK Constellations for Coherent Optical Channels with Nonlinear Phase Noise. IEEE Transactions on Communications, 2013, 61, 3362-3373.	7.8	43
5	Learned Belief-Propagation Decoding with Simple Scaling and SNR Adaptation. , 2019, , .		43
6	Nonlinear Interference Mitigation via Deep Neural Networks. , 2018, , .		41
7	Approaching Miscorrection-Free Performance of Product Codes With Anchor Decoding. IEEE Transactions on Communications, 2018, 66, 2797-2808.	7.8	36
8	Decoding Reed-Muller Codes Using Minimum- Weight Parity Checks. , 2018, , .		32
9	Revisiting Efficient Multi-Step Nonlinearity Compensation With Machine Learning: An Experimental Demonstration. Journal of Lightwave Technology, 2020, 38, 3114-3124.	4.6	31
10	Reinforcement Learning for Channel Coding: Learned Bit-Flipping Decoding. , 2019, , .		24
11	Decoding Reedâ€"Muller Codes Using Redundant Code Constraints. , 2020, , .		24
12	Density Evolution for Deterministic Generalized Product Codes on the Binary Erasure Channel at High Rates. IEEE Transactions on Information Theory, 2017, 63, 4357-4378.	2.4	21
13	Model-Based Machine Learning for Joint Digital Backpropagation and PMD Compensation. Journal of Lightwave Technology, 2021, 39, 949-959.	4.6	20
14	Terminated and Tailbiting Spatially Coupled Codes With Optimized Bit Mappings for Spectrally Efficient Fiber-Optical Systems. Journal of Lightwave Technology, 2015, 33, 1275-1285.	4.6	18
15	On the Information Loss of the Max-Log Approximation in BICM Systems. IEEE Transactions on Information Theory, 2016, 62, 3011-3025.	2.4	18
16	Pruning Neural Belief Propagation Decoders. , 2020, , .		18
17	Deep Learning of the Nonlinear SchrÃ¶dinger Equation in Fiber-Optic Communications. , 2018, , .		15
18	What Can Machine Learning Teach Us about Communications?. , 2018, , .		13

#	Article	IF	Citations
19	On Parameter Optimization for Staircase Codes. , 2015, , .		12
20	On Low-Complexity Decoding of Product Codes for High-Throughput Fiber-Optic Systems. , 2018, , .		11
21	ASIC Implementation of Time-Domain Digital Backpropagation with Deep-Learned Chromatic Dispersion Filters. , 2018, , .		10
22	Optimized bit mappings for spatially coupled LDPC codes over parallel binary erasure channels. , 2014, , .		9
23	Learning Physical-Layer Communication With Quantized Feedback. IEEE Transactions on Communications, 2020, 68, 645-653.	7.8	9
24	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.	2.9	9
25	End-to-End Learning of Geometrical Shaping Maximizing Generalized Mutual Information. , 2020, , .		8
26	Density Evolution and Error Floor Analysis for Staircase and Braided Codes. , 2016, , .		8
27	Constellation optimization for coherent optical channels distorted by nonlinear phase noise. , 2012, , .		7
28	Model-Based Machine Learning for Joint Digital Backpropagation and PMD Compensation. , 2020, , .		7
29	Benchmarking and Interpreting End-to-End Learning of MIMO and Multi-User Communication. IEEE Transactions on Wireless Communications, 2022, 21, 7287-7298.	9.2	7
30	Periodicity-Enabled Size Reduction of Symbol Based Predistortion for High-Order QAM. Journal of Lightwave Technology, 2022, 40, 6168-6178.	4.6	7
31	Learned Decimation for Neural Belief Propagation Decoders : Invited Paper. , 2021, , .		6
32	Autoencoder-Based Unequal Error Protection Codes. IEEE Communications Letters, 2021, 25, 3575-3579.	4.1	5
33	Comparison of terminated and tailbiting spatially coupled LDPC codes with optimized bit mapping for PM-64-QAM. , 2014, , .		4
34	Spatially-coupled codes for optical communications: state-of-the-art and open problems. , 2015, , .		3
35	Density evolution for deterministic generalized product codes with higher-order modulation. , 2016, , .		3
36	Miscorrection-free Decoding of Staircase Codes. , 2017, , .		3

#	Article	IF	Citations
37	Wideband Time-Domain Digital Backpropagation via Subband Processing and Deep Learning. , 2018, , .		3
38	Deterministic and ensemble-based spatially-coupled product codes. , 2016, , .		1
39	A Low-Complexity Detector for Memoryless Polarization-Multiplexed Fiber-Optical Channels. IEEE Communications Letters, 2014, 18, 368-371.	4.1	0
40	Machine learning for long-haul optical systems. , 2022, , 43-64.		0