Catherine Douillard

List of Publications by Year
in descending order

79 papers	2,443 citations	516710 16 h-index	345221 36 g-index
83 all docs	83 docs citations	83 times ranked	1332 citing authors

#	Article	IF	Citations
1	A Deep Q-Learning Bisection Approach for Power Allocation in Downlink NOMA Systems. IEEE Communications Letters, 2022, 26, 316-320.	4.1	4
2	Optimal Resource Allocation for Full-Duplex IoT Systems Underlaying Cellular Networks With Mutual SIC NOMA. IEEE Internet of Things Journal, 2021, 8, 17705-17723.	8.7	7
3	Resource Allocation in NOMA-Based Self-Organizing Networks Using Stochastic Multi-Armed Bandits. IEEE Transactions on Communications, 2021, 69, 6003-6017.	7.8	13
4	Resource Allocation in Full-Duplex Uncoordinated Communication Systems with NOMA. , 2021, , .		2
5	Resource Allocation in NOMA Systems for Centralized and Distributed Antennas With Mixed Traffic Using Matching Theory. IEEE Transactions on Communications, 2020, 68, 414-428.	7.8	22
6	Mutual Successive Interference Cancellation Strategies in NOMA for Enhancing the Spectral Efficiency of CoMP Systems. IEEE Transactions on Communications, 2020, 68, 1213-1226.	7.8	26
7	Inband Full-Duplex D2D Communications Underlaying Uplink Networks with Mutual SIC NOMA. , 2020, , .		1
8	Analysis of Drone Placement Strategies for Complete Interference Cancellation in Two-Cell NOMA CoMP Systems. IEEE Access, 2020, 8, 179055-179069.	4.2	5
9	Low-complexity Computational Units for the Local-SOVA Decoding Algorithm. , 2020, , .		6
10	Union Bound Evaluation for Non-Binary Turbo Coded Modulations. IEEE Communications Letters, 2020, 24, 1178-1182.	4.1	2
11	Full-Duplex and Backhaul-Constrained UAV-Enabled Networks Using NOMA. IEEE Transactions on Vehicular Technology, 2020, 69, 9667-9681.	6.3	18
12	Fully Pipelined Iteration Unrolled Decoders the Road to TB/S Turbo Decoding. , 2020, , .		8
13	Revisiting the Max-Log-Map Algorithm With SOVA Update Rules: New Simplifications for High-Radix SISO Decoders. IEEE Transactions on Communications, 2020, 68, 1991-2004.	7.8	14
14	New Power Minimization Techniques in Hybrid Distributed Antenna Systems With Orthogonal and Non-Orthogonal Multiple Access. IEEE Transactions on Green Communications and Networking, 2019, 3, 679-690.	5.5	7
15	Backhaul-Constrained Resource Allocation and 3D Placement for UAV-Enabled Networks. , 2019, , .		12
16	Dual Trellis Construction for High-Rate Punctured Convolutional Codes. , 2019, , .		1
17	Low Complexity Adaptive Demapper for 2-D Non-Uniform Constellations. IEEE Transactions on Broadcasting, 2019, 65, 10-19.	3.2	5
18	Protograph-Based Interleavers for Punctured Turbo Codes. IEEE Transactions on Communications, 2018, 66, 1833-1844.	7.8	25

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19	Mitigating Correlation Problems in Turbo Decoders. , 2018, , .		3
20	Low-complexity decoders for non-binary turbo codes. , 2018, , .		11
21	Design of Low-Complexity Convolutional Codes over GF(q). , 2018, , .		5
22	25 Years of Turbo Codes: From Mb/s to beyond 100 Gb/s. , 2018, , .		19
23	Resource Allocation for Mixed Traffic Types in Distributed Antenna Systems Using NOMA. , 2018, , .		7
24	Joint Resource and Power Allocation Technique for Downlink Power-Domain Non-Orthogonal Multiple Access. , 2018, , .		1
25	Power Minimization in Distributed Antenna Systems Using Non-Orthogonal Multiple Access and Mutual Successive Interference Cancellation. IEEE Transactions on Vehicular Technology, 2018, 67, 11873-11885.	6.3	23
26	Low-Complexity Lattice Reduction Demapper for Massive Order One-Dimensional Non-Uniform Constellations. , 2018, , .		3
27	Advanced Resource Allocation Technique for a Fair Downlink Non-Orthogonal Multiple Access System. , 2018, , .		4
28	Weighted Proportional Fair Scheduling for Downlink Nonorthogonal Multiple Access. Wireless Communications and Mobile Computing, 2018, 2018, 1-12.	1.2	18
29	Waterfilling-Based Proportional Fairness Scheduler for Downlink Non-Orthogonal Multiple Access. IEEE Wireless Communications Letters, 2017, 6, 230-233.	5.0	46
30	Waterfilling-based resource allocation techniques in downlink Non-Orthogonal Multiple Access (NOMA) with Single-User MIMO. , 2017, , .		13
31	New resource allocation techniques for base station power reduction in orthogonal and non-orthogonal multiplexing systems. , 2017, , .		15
32	An enhanced coding strategy for FTN-OFDM/OQAM transceiver design. , 2017, , .		1
33	New efficient energy-saving techniques for resource allocation in downlink OFDMA transmission systems. , 2017, , .		2
34	A new approach to optimise Non-Binary LDPC codes for coded modulations. , 2016, , .		2
35	Evaluation of Intra-Subband Power Allocation for a Downlink Non-Orthogonal Multiple Access (NOMA) System. , 2016, , .		4
36	On Signal Space Diversity for non binary coded modulation schemes. , 2016, , .		3

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37	Improving Turbo Codes for 5G with parity puncture-constrained interleavers. , 2016, , .		10
38	New Optimal and Suboptimal Resource Allocation Techniques for Downlink Non-orthogonal Multiple Access. Wireless Personal Communications, 2016, 87, 837-867.	2.7	31
39	Max-log demapper architecture design for DVB-T2 rotated QAM constellations. , 2015, , .		10
40	A low-complexity 2D signal space diversity solution for future broadcasting systems. , 2015, , .		15
41	On the Equivalence of Interleavers for Turbo Codes. IEEE Wireless Communications Letters, 2015, 4, 58-61.	5.0	22
42	Resource Allocation in Downlink Non-Orthogonal Multiple Access (NOMA) for Future Radio Access. , 2015, , .		65
43	On the Equivalence Between Canonical Forms of Recursive Systematic Convolutional Transducers Based on Single Shift Registers. IEEE Access, 2014, 2, 381-394.	4.2	4
44	Transmit antenna selection for coded multiple-input dual-output systems. , 2014, , .		0
45	Finite-SNR diversity-multiplexing tradeoff for spatially correlated Rayleigh MIMO channels. , 2014, , .		3
46	Channel Interleavers for Terrestrial Broadcast: Analysis and Design. IEEE Transactions on Broadcasting, 2014, 60, 679-692.	3.2	5
47	Turbo Codes: From First Principles to Recent Standards. , 2014, , 1-52.		1
48	A Unified Broadcast Layer for Horizon 2020 Delivery of Multimedia Services. IEEE Transactions on Broadcasting, 2014, 60, 193-207.	3.2	12
49	DVB-NGH: The Next Generation of Digital Broadcast Services to Handheld Devices. IEEE Transactions on Broadcasting, 2014, 60, 246-257.	3.2	88
50	A survey of three-dimensional turbo codes and recent performance enhancements. Eurasip Journal on Wireless Communications and Networking, 2013, 2013, .	2.4	2
51	Multi-non-binary turbo codes. Eurasip Journal on Wireless Communications and Networking, 2013, 2013, .	2.4	8
52	Finite-SNR Diversity-Multiplexing Tradeoff for Rayleigh MIMO Channels. IEEE Communications Letters, 2013, 17, 753-756.	4.1	16
53	On the Influence of the Extrinsic Information Scaling Coefficient on the Performance of Single and Double Binary Turbo Codes. Advances in Electrical and Computer Engineering, 2013, 13, 77-84.	0.9	5
54	High diversity multi-block space-time code for broadcasting applications. , 2012, , .		0

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55	The Bit Interleaved Coded Modulation module for DVB-NGH: Enhanced features for mobile reception. , 2012, , .		5
56	Adaptive Trace-Orthonormal STBC for MIMO System with Capacity Approaching FEC Codes. , 2012, , .		6
57	Analysis of three-dimensional turbo codes. Annales Des Telecommunications/Annals of Telecommunications, 2012, 67, 257-268.	2.5	7
58	Efficient iterative receiver for bit-Interleaved Coded Modulation according to the DVB-T2 standard. , 2011, , .		10
59	A shuffled iterative bit-interleaved coded modulation receiver for the DVB-T2 standard: Design, implementation and FPGA prototyping. , 2011, , .		5
60	Design of suitable permutations for irregular turbo codes. Electronics Letters, 2011, 47, 748-749.	1.0	3
61	Improving irregular turbo codes. Electronics Letters, 2011, 47, 1184.	1.0	3
62	Design and FPGA prototyping of a bit-interleaved coded modulation receiver for the DVB-T2 standard. , 2010, , .		11
63	Serially concatenated continuous phase modulation for satellite communications. IEEE Transactions on Wireless Communications, 2009, 8, 3260-3269.	9.2	59
64	Improving 3-dimensional turbo codes using 3GPP2 interleavers. , 2009, , .		4
65	Design of rotated QAM mapper/demapper for the DVB-T2 standard. , 2009, , .		37
66	Improving BICM performance of QAM constellations for broadcasting applications. , 2008, , .		37
67	Rotated QAM Constellations to Improve BICM Performance for DVB-T2. , 2008, , .		35
68	Adding a Rate-1 Third Dimension to Turbo Codes. , 2007, , .		33
69	Iterative Decoding of Concatenated Convolutional Codes: Implementation Issues. Proceedings of the IEEE, 2007, 95, 1201-1227.	21.3	59
70	Serially Concatenated Continuous Phase Modulation with Extended BCH Codes. , 2007, , .		6
71	CTH11-4: On Lowering the Error Floor of High Order Turbo BICM Schemes Over Fading Channels. IEEE Global Telecommunications Conference (GLOBECOM), 2006, , .	0.0	9
72	Turbo Codes With Rate-<tex>$m/(m+ 1)$</tex>Constituent Convolutional Codes. IEEE Transactions on Communications, 2005, 53, 1630-1638.	7.8	134

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73	Modulation, coding and signal processing for wireless communications - MHOMS: high-speed ACM modem for satellite applications. IEEE Wireless Communications, 2005, 12, 66-77.	9.0	66
74	Application of error impulse method to 16-QAM bit-interleaved turbo coded modulations. Electronics Letters, 2003, 39, 538.	1.0	2
75	Iterative correction of intersymbol interference: Turboâ€equalization. European Transactions on Telecommunications, 1995, 6, 507-511.	1.2	1,171
76	Pseudo-syndrome method for supervising Viterbi decoders at any coding rate. Electronics Letters, 1994, 30, 1036-1037.	1.0	4
77	GÃ©nÃ©rateur de machines sÃ©quentielles autotestables pour circuits intÃ©grÃ©s spÃ©cifiques. Annales Des Telecommunications/Annals of Telecommunications, 1990, 45, 635-641.	2.5	0
78	The advantages of non-binary turbo codes. , 0, , .		80
79	Application of the error impulse method in the design of high-order turbo coded modulation. , 0, , .		2