Robert G Maunder

List of Publications by Year
in descending order

97	2,070	257450	289244
papers	citations	24 h-index	40 g-index

98	98	98	1610
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Deep-Learning-Aided Packet Routing in Aeronautical Ad Hoc Networks Relying on Real Flight Data: From Single-Objective to Near-Pareto Multiobjective Optimization. IEEE Internet of Things Journal, 2022, 9, 4598-4614.	8.7	12
2	Reconfigurable Intelligent Surface Assisted Multi-Carrier Wireless Systems for Doubly Selective High-Mobility Ricean Channels. IEEE Transactions on Vehicular Technology, 2022, 71, 4023-4041.	6.3	21
3	Unity-Rate Coding Improves the Iterative Detection Convergence of Autoencoder-Aided Communication Systems. IEEE Transactions on Vehicular Technology, 2022, 71, 5037-5047.	6.3	2
4	A Soft-Input Soft-Output Polar Decoding Algorithm for Turbo-Detection in MIMO-Aided 5G New Radio. IEEE Transactions on Vehicular Technology, 2022, 71, 6454-6468.	6.3	7
5	Turbo Detection Aided Autoencoder for Multicarrier Wireless Systems: Integrating Deep Learning Into Channel Coded Systems. IEEE Transactions on Cognitive Communications and Networking, 2022, 8, 600-614.	7.9	7
6	Deep Learning Aided Routing for Space-Air-Ground Integrated Networks Relying on Real Satellite, Flight, and Shipping Data. IEEE Wireless Communications, 2022, 29, 177-184.	9.0	12
7	Minimum-Delay Routing for Integrated Aeronautical Ad Hoc Networks Relying on Real Flight Data in the North-Atlantic Region. IEEE Open Journal of Vehicular Technology, 2021, 2, 310-320.	4.9	3
8	Priority-Aware Secure Precoding Based on Multi-Objective Symbol Error Ratio Optimization. IEEE Transactions on Communications, 2021, 69, 1912-1929.	7.8	0
9	Hybrid Iterative Detection and Decoding of Near-Instantaneously Adaptive Turbo-Coded <?brk?>Sparse Code Multiple Access. IEEE Transactions on Vehicular Technology, 2021, 70, 4682-4692.	6.3	1
10	Soft-Output Successive Cancellation Stack Polar Decoder. IEEE Transactions on Vehicular Technology, 2021, 70, 6238-6243.	6.3	6
11	Space-, Time- and Frequency-Domain Index Modulation for Next-Generation Wireless: A Unified Single-/Multi-Carrier and Single-/Multi-RF MIMO Framework. IEEE Transactions on Wireless Communications, 2021, 20, 3847-3864.	9.2	7
12	Iterative Receiver Design for Polar-Coded SCMA Systems. IEEE Transactions on Communications, 2021, 69, 4235-4246.	7.8	13
13	Resource Allocation in Millimeter-Wave Multicarrier-Division Duplex Systems With Hybrid Beamforming. IEEE Transactions on Vehicular Technology, 2021, 70, 7921-7935.	6.3	5
14	Semi-Stochastic Aircraft Mobility Modelling for Aeronautical Networks: An Australian Case-Study Based on Real Flight Data. IEEE Transactions on Vehicular Technology, 2021, 70, 10763-10779.	6.3	2
15	Factor Graphs for Support Identification in Compressive Sensing Aided Wireless Sensor Networks. IEEE Sensors Journal, 2021, 21, 27195-27207.	4.7	1
16	Polar Codes and Their Quantum-Domain Counterparts. IEEE Communications Surveys and Tutorials, 2020, 22, 123-155.	39.4	25
17	Concurrent OFDM Demodulation and Turbo Decoding for Ultra Reliable Low Latency Communication. IEEE Transactions on Vehicular Technology, 2020, 69, 1281-1290.	6.3	6
18	Fusion-Based Cooperative Support Identification for Compressive Networked Sensing. IEEE Wireless Communications Letters, 2020, 9, 157-161.	5.0	3

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19	The Development, Operation and Performance of the 5G Polar Codes. IEEE Communications Surveys and Tutorials, 2020, 22, 96-122.	39.4	42
20	3D EXIT Charts for Analyzing the 5G 3GPP New Radio LDPC Decoder. IEEE Access, 2020, 8, 188797-188812.	4.2	5
21	Deep-Learning-Aided Joint Channel Estimation and Data Detection for Spatial Modulation. IEEE Access, 2020, 8, 191910-191919.	4.2	20
22	Soft List Decoding of Polar Codes. IEEE Transactions on Vehicular Technology, 2020, 69, 13921-13926.	6.3	16
23	Channel Estimation and User Activity Identification in Massive Grant-Free Multiple-Access. IEEE Open Journal of Vehicular Technology, 2020, 1, 296-316.	4.9	10
24	Self-Interference Cancellation and Channel Estimation in Multicarrier-Division Duplex Systems With Hybrid Beamforming. IEEE Access, 2020, 8, 160653-160669.	4.2	14
25	Reduced-Complexity Low-Latency Logarithmic Successive Cancellation Stack Polar Decoding for 5G New Radio and Its Software Implementation. IEEE Transactions on Vehicular Technology, 2020, 69, 12449-12458.	6.3	7
26	Multicarrier Division Duplex Aided Millimeter Wave Communications. IEEE Access, 2019, 7, 100719-100732.	4.2	8
27	Adaptive Coherent/Non-Coherent Spatial Modulation Aided Unmanned Aircraft Systems. IEEE Wireless Communications, 2019, 26, 170-177.	9.0	34
28	â€œNear-Perfectâ€•Finite-Cardinality Generalized Space-Time Shift Keying. IEEE Journal on Selected Areas in Communications, 2019, 37, 2146-2164.	14.0	14
29	Constant-Envelope Space-Time Shift Keying. IEEE Journal on Selected Topics in Signal Processing, 2019, 13, 1387-1402.	10.8	11
30	Subcarrier Subset Selection-Aided Transmit Precoding Achieves Full-Diversity in Index Modulation. IEEE Transactions on Vehicular Technology, 2019, 68, 11031-11041.	6.3	3
31	Aeronautical $Ad~Hoc$ Networking for the Internet-Above-the-Clouds. Proceedings of the IEEE, 2019, 107, 868-911.	21.3	132
32	Differential-Detection Aided Large-Scale Generalized Spatial Modulation is Capable of Operating in High-Mobility Millimeter-Wave Channels. IEEE Journal on Selected Topics in Signal Processing, 2019, 13, 1360-1374.	10.8	26
33	CRC-Aided Logarithmic Stack Decoding of Polar Codes for Ultra Reliable Low Latency Communication in 3GPP New Radio. IEEE Access, 2019, 7, 28559-28573.	4.2	21
34	Arbitrarily Parallel Turbo Decoding for Ultra-Reliable Low Latency Communication in 3GPP LTE. IEEE Journal on Selected Areas in Communications, 2019, 37, 826-838.	14.0	15
35	Sixty Years of Coherent Versus Non-Coherent Tradeoffs and the Road From 5G to Wireless Futures. IEEE Access, 2019, 7, 178246-178299.	4.2	49
36	Survey of Turbo, LDPC, and Polar Decoder ASIC Implementations. IEEE Communications Surveys and Tutorials, 2019, 21, 2309-2333.	39.4	92

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37	Adaptive Coherent/Non-Coherent Single/Multiple-Antenna Aided Channel Coded Ground-to-Air Aeronautical Communication. IEEE Transactions on Communications, 2019, 67, 1099-1116.	7.8	25
38	Finite-Cardinality Single-RF Differential Space-Time Modulation for Improving the Diversity-Throughput Tradeoff. IEEE Transactions on Communications, 2019, 67, 318-335.	7.8	20
39	Hardware-Efficient Node Processing Unit Architectures for Flexible LDPC Decoder Implementations. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 1919-1923.	3.0	9
40	Adaptive Coding and Modulation for Large-Scale Antenna Array-Based Aeronautical Communications in the Presence of Co-Channel Interference. IEEE Transactions on Wireless Communications, 2018, 17, 1343-1357.	9.2	48
41	Single-RF Index Shift Keying Aided Differential Spaceâ€“Time Block Coding. IEEE Transactions on Signal Processing, 2018, 66, 773-788.	5.3	21
42	Unary-Coded Dimming Control Improves ON-OFF Keying Visible Light Communication. IEEE Transactions on Communications, 2018, 66, 255-264.	7.8	23
43	Conceiving Extrinsic Information Transfer Charts for Stochastic Low-Density Parity-Check Decoders. IEEE Access, 2018, 6, 55741-55753.	4.2	0
44	Differential Space-Time Coding Dispensing With Channel Estimation Approaches the Performance of Its Coherent Counterpart in the Open-Loop Massive MIMO-OFDM Downlink. IEEE Transactions on Communications, 2018, 66, 6190-6204.	7.8	20
45	A Beamforming-Aided Full-Diversity Scheme for Low-Altitude Air-to-Ground Communication Systems Operating With Limited Feedback. IEEE Transactions on Communications, 2018, 66, 6602-6613.	7.8	11
46	Regularized Zero-Forcing Precoding-Aided Adaptive Coding and Modulation for Large-Scale Antenna Array-Based Air-to-Air Communications. IEEE Journal on Selected Areas in Communications, 2018, 36, 2087-2103.	14.0	23
47	Full-Diversity Dispersion Matrices From Algebraic Field Extensions for Differential Spatial Modulation. IEEE Transactions on Vehicular Technology, 2017, 66, 385-394.	6.3	41
48	Flexible iterative receiver architecture for wireless sensor networks: a joint source and channel coding design example. IET Wireless Sensor Systems, 2017, 7, 27-34.	1.7	2
49	A High-Throughput FPGA Architecture for Joint Source and Channel Decoding. IEEE Access, 2017, 5, 2921-2944.	4.2	7
50	A Flexible FPGA-Based Quasi-Cyclic LDPC Decoder. IEEE Access, 2017, 5, 20965-20984.	4.2	17
51	Improving the Tolerance of Stochastic LDPC Decoders to Overclocking-Induced Timing Errors: A Tutorial and a Design Example. IEEE Access, 2016, 4, 1607-1629.	4.2	6
52	Exponential Golomb and Rice Error Correction Codes for Generalized Near-Capacity Joint Source and Channel Coding. IEEE Access, 2016, 4, 7154-7175.	4.2	6
53	Implementation of a Fully-Parallel Turbo Decoder on a General-Purpose Graphics Processing Unit. IEEE Access, 2016, 4, 5624-5639.	4.2	8
54	1.5 Gbit/s FPGA Implementation of a Fully-Parallel Turbo Decoder Designed for Mission-Critical Machine-Type Communication Applications. IEEE Access, 2016, 4, 5452-5473.	4.2	24

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55	Fully-Parallel Quantum Turbo Decoder. IEEE Access, 2016, 4, 6073-6085.	4.2	4
56	A Scalable Turbo Decoding Algorithm for High-Throughput Network-on-Chip Implementation. IEEE Access, 2016, 4, 9880-9894.	4.2	5
57	Reordered Elias Gamma Error Correction Codes for the Near-Capacity Transmission of Multimedia Information. IEEE Access, 2016, 4, 5948-5970.	4.2	48
58	VLSI Implementation of Fully Parallel LTE Turbo Decoders. IEEE Access, 2016, 4, 323-346.	4.2	39
59	Stochastic Computing Improves the Timing-Error Tolerance and Latency of Turbo Decoders: Design Guidelines and Tradeoffs. IEEE Access, 2016, 4, 1008-1038.	4.2	14
60	A Survey of FPGA-Based LDPC Decoders. IEEE Communications Surveys and Tutorials, 2016, 18, 1098-1122.	39.4	64
61	20 Years of Turbo Coding and Energy-Aware Design Guidelines for Energy-Constrained Wireless Applications. IEEE Communications Surveys and Tutorials, 2016, 18, 8-28.	39.4	33
62	Fully Parallel Turbo Equalization for Wireless Communications. IEEE Access, 2015, 3, 2652-2664.	4.2	4
63	Extrinsic Information Transfer Charts for Characterizing the Iterative Decoding Convergence of Fully Parallel Turbo Decoders. IEEE Access, 2015, 3, 2100-2110.	4.2	59
64	Irregular Trellis for the Near-Capacity Unary Error Correction Coding of Symbol Values From an Infinite Set. IEEE Transactions on Communications, 2015, 63, 5073-5088.	7.8	9
65	Adaptive Iterative Decoding for Expediting the Convergence of Unary Error Correction Codes. IEEE Transactions on Vehicular Technology, 2015, 64, 621-635.	6.3	55
66	Bit-by-Bit Iterative Decoding Expedites the Convergence of Repeat Accumulate Decoders. IEEE Transactions on Communications, 2015, 63, 1952-1962.	7.8	0
67	A Fully-Parallel Turbo Decoding Algorithm. IEEE Transactions on Communications, 2015, 63, 2762-2775.	7.8	44
68	Wireless information and power transfer: from scientific hypothesis to engineering practice. , 2015, 53, 99-105.		41
69	Adaptive iterative detection for expediting the convergence of a serially concatenated Unary Error Correction decoder, turbo decoder and an iterative demodulator. , 2015, , .		1
70	Reduced-Complexity Soft-Decision Multiple-Symbol Differential Sphere Detection. IEEE Transactions on Communications, 2015, 63, 3275-3289.	7.8	9
71	Reduced-Complexity ML Detection and Capacity-Optimized Training for Spatial Modulation Systems. IEEE Transactions on Communications, 2014, 62, 112-125.	7.8	158
72	Near-Capacity Joint Source and Channel Coding of Symbol Values from an Infinite Source Set Using Elias Gamma Error Correction Codes. IEEE Transactions on Communications, 2014, 62, 280-292.	7.8	10

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73	Layered Wireless Video Relying on Minimum-Distortion Inter-Layer FEC Coding. IEEE Transactions on Multimedia, 2014, 16, 697-710.	7.2	24
74	Spaceâ€time QAM wireless MISO systems employing differentially coded inâ€/outâ€FECC SCQICs over slowâ€fading Jakes scattering mobile radio links. Journal of Engineering, 2014, 2014, 391-398.	1.1	0
75	From Nominal to True A Posteriori Probabilities: An Exact Bayesian Theorem Based Probabilistic Data Association Approach for Iterative MIMO Detection and Decoding. IEEE Transactions on Communications, 2013, 61, 2782-2793.	7.8	23
76	A Unary Error Correction Code for the Near-Capacity Joint Source and Channel Coding of Symbol Values from an Infinite Set. IEEE Transactions on Communications, 2013, 61, 1977-1987.	7.8	18
77	Joint space-time algebraically-interleaved turbo-like Coded Incoherent MIMO systems with optimal and suboptimal MAP probability decoders. , 2013, , .		1
78	EXIT-Chart-Aided Joint Source Coding, Channel Coding, and Modulation Design for Two-Way Relaying. IEEE Transactions on Vehicular Technology, 2013, 62, 2496-2506.	6.3	4
79	A Low-Complexity Turbo Decoder Architecture for Energy-Efficient Wireless Sensor Networks. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2013, 21, 14-22.	3.1	44
80	Distributed Multiple-Component Turbo Codes for Cooperative Hybrid ARQ. IEEE Signal Processing Letters, 2013, 20, 599-602.	3.6	13
81	A Survey and Tutorial on Low-Complexity Turbo Coding Techniques and a Holistic Hybrid ARQ Design Example. IEEE Communications Surveys and Tutorials, 2013, 15, 1546-1566.	39.4	47
82	Energy-Conscious Turbo Decoder Design: A Joint Signal Processing and Transmit Energy Reduction Approach. IEEE Transactions on Vehicular Technology, 2013, 62, 3627-3638.	6.3	5
83	Joint TTCM-VLC-Aided SDMA for Two-Way Relaying Aided Wireless Video Transmission. , 2013, , .		1
84	On the complexity of Unary Error Correction codes for the near-capacity transmission of symbol values from an infinite set. , 2013, , .		8
85	Serial concatenation of quadratic interleaved codes in different wireless doppler environments. , 2013, , .		1
86	Modulation diversity for Spatial Modulation using Complex Interleaved Orthogonal Design. , 2012, , .		32
87	Extrinsic Information Transfer Analysis and Design of Block-Based Intermediate Codes. IEEE Transactions on Vehicular Technology, 2011, 60, 762-770.	6.3	56
88	Unified Bit-Based Probabilistic Data Association Aided MIMO Detection for High-Order QAM Constellations. IEEE Transactions on Vehicular Technology, 2011, 60, 981-991.	6.3	26
89	Distributed Probabilistic-Data-Association-Based Soft Reception Employing Base Station Cooperation in MIMO-Aided Multiuser Multicell Systems. IEEE Transactions on Vehicular Technology, 2011, 60, 3532-3538.	6.3	17
90	Iterative Decoding Convergence and Termination of Serially Concatenated Codes. IEEE Transactions on Vehicular Technology, 2010, 59, 216-224.	6.3	17

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91	Near-Capacity Cooperative Space-Time Coding Employing Irregular Design and Successive Relaying. IEEE Transactions on Communications, 2010, 58, 2232-2241.	7.8	19
92	Reduced-complexity near-capacity downlink iteratively decoded generalized multi-layer space-time coding using irregular convolutional codes. IEEE Transactions on Wireless Communications, 2010, 9, 684-695.	9.2	17
93	An Energy-Efficient Error Correction Scheme for IEEE 802.15.4 Wireless Sensor Networks. IEEE Transactions on Circuits and Systems II: Express Briefs, 2010, 57, 233-237.	3.0	25
94	Design of Fixed-Point Processing Based Turbo Codes Using Extrinsic Information Transfer Charts. , 2010, , .		3
95	Irregular Distributed Space-Time Code Design for Near-Capacity Cooperative Communications. , 2009, , .		5
96	Iterative Detection of Unity-Rate Precoded FFH-MFSK and Irregular Variable-Length Coding. IEEE Transactions on Vehicular Technology, 2009, 58, 3765-3770.	6.3	9
97	EXIT-chart aided near-capacity Irregular Bit-Interleaved Coded Modulation design. IEEE Transactions on Wireless Communications, 2009, 8, 32-37.	9.2	66