

# Alfonso Martinez

## List of Publications by Year in descending order

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87  
papers

1,261  
citations

567281

15  
h-index

414414

32  
g-index

87  
all docs

87  
docs citations

87  
times ranked

693  
citing authors

#	ARTICLE	IF	CITATIONS
1	Bit-Interleaved Coded Modulation Revisited: A Mismatched Decoding Perspective. IEEE Transactions on Information Theory, 2009, 55, 2756-2765.	2.4	194
2	Bit-Interleaved Coded Modulation. Foundations and Trends in Communications and Information Theory, 2007, 5, 1-153.	3.1	158
3	Error probability analysis of bit-interleaved coded modulation. IEEE Transactions on Information Theory, 2006, 52, 262-271.	2.4	102
4	Mismatched Decoding: Error Exponents, Second-Order Rates and Saddlepoint Approximations. IEEE Transactions on Information Theory, 2014, 60, 2647-2666.	2.4	81
5	Turbo-coded APSK modulations design for satellite broadband communications. International Journal of Satellite Communications and Networking, 2006, 24, 261-281.	1.8	54
6	Saddlepoint approximation of random-coding bounds. , 2011, , .		51
7	Design Considerations for a Transparent Mode Group Diversity Multiplexing Link. IEEE Photonics Technology Letters, 2006, 18, 2359-2361.	2.5	50
8	Spectral efficiency of optical direct detection. Journal of the Optical Society of America B: Optical Physics, 2007, 24, 739.	2.1	39
9	Bit-Interleaved Coded Modulation in the Wideband Regime. IEEE Transactions on Information Theory, 2008, 54, 5447-5455.	2.4	32
10	Expurgated Random-Coding Ensembles: Exponents, Refinements, and Connections. IEEE Transactions on Information Theory, 2014, 60, 4449-4462.	2.4	31
11	Second-Order Rate Region of Constant-Composition Codes for the Multiple-Access Channel. IEEE Transactions on Information Theory, 2015, 61, 157-172.	2.4	23
12	Bayesian $\chi^2$ -Ary Hypothesis Testing: The Meta-Converse and Verdan-Han Bounds Are Tight. IEEE Transactions on Information Theory, 2016, 62, 2324-2333.	2.4	23
13	Saddlepoint approximations of lower and upper bounds to the error probability in channel coding. , 2018, , .		22
14	Bit-interleaved coded modulation with shaping. , 2010, , .		21
15	Information-Theoretic Foundations of Mismatched Decoding. Foundations and Trends in Communications and Information Theory, 2020, 17, 149-401.	3.1	21
16	The likelihood decoder: Error exponents and mismatch. , 2015, , .		20
17	Ensemble-tight error exponents for mismatched decoders. , 2012, , .		19
18	A Closed-Form Approximation for the Error Probability of BPSK Fading Channels. IEEE Transactions on Wireless Communications, 2007, 6, 2051-2054.	9.2	18

#	ARTICLE	IF	CITATIONS
19	Communication by Energy Modulation: The Additive Exponential Noise Channel. IEEE Transactions on Information Theory, 2011, 57, 3333-3351.	2.4	17
20	Temporal Stability of a Transparent Mode Group Diversity Multiplexing Link. IEEE Photonics Technology Letters, 2006, 18, 2484-2486.	2.5	16
21	Extremes of Error Exponents. IEEE Transactions on Information Theory, 2013, 59, 2201-2207.	2.4	14
22	A Counter-Example to the Mismatched Decoding Converse for Binary-Input Discrete Memoryless Channels. IEEE Transactions on Information Theory, 2015, 61, 5387-5395.	2.4	14
23	Multiuser Random Coding Techniques for Mismatched Decoding. IEEE Transactions on Information Theory, 2016, 62, 3950-3970.	2.4	14
24	Large-SNR error probability analysis of BICM with uniform interleaving in fading channels. IEEE Transactions on Wireless Communications, 2009, 8, 38-44.	9.2	11
25	Multi-Class Source-Channel Coding. IEEE Transactions on Information Theory, 2016, 62, 5093-5104.	2.4	11
26	On the Addition of an Input Buffer to an Iterative Decoder for LDPC Codes. IEEE Vehicular Technology Conference, 2007, , .	0.4	9
27	A derivation of the asymptotic random-coding prefactor. , 2013, , .		9
28	Random-coding bounds for threshold decoders: Error exponent and saddlepoint approximation. , 2011, , .		8
29	Source-channel coding with multiple classes. , 2014, , .		8
30	A complex-integration approach to the saddlepoint approximation for random-coding bounds. , 2014, , .		8
31	Efficient stopping rule for turbo decoders. Electronics Letters, 2006, 42, 235.	1.0	7
32	Bit-interleaved coded modulation revisited: A mismatched decoding perspective. , 2008, , .		7
33	Corrections to "Bit-Interleaved Coded Modulation in the Wideband Regime" [Dec 08 5447-5455]. IEEE Transactions on Information Theory, 2010, 56, 6513-6513.	2.4	7
34	Random-coding joint source-channel bounds. , 2011, , .		7
35	Superposition codes for mismatched decoding. , 2013, , .		7
36	A Derivation of the Source-Channel Error Exponent Using Nonidentical Product Distributions. IEEE Transactions on Information Theory, 2014, 60, 3209-3217.	2.4	7

#	ARTICLE	IF	CITATIONS
37	An Introduction to Space-Time Exterior Calculus. Mathematics, 2019, 7, 564.	2.2	7
38	The capacity loss of dense constellations. , 2012, , .		6
39	The saddlepoint approximation: Unified random coding asymptotics for fixed and varying rates. , 2014, , .		6
40	Generalized Maxwell equations for exterior-algebra multivectors in $(k, \mathbb{A}^n)$ space-time dimensions. European Physical Journal Plus, 2020, 135, 1.	2.6	6
41	An exterior-algebraic derivation of the symmetric stress-energy-momentum tensor in flat space-time. European Physical Journal Plus, 2021, 136, 1.	2.6	6
42	Cost-constrained random coding and applications. , 2013, , .		5
43	Asymptotics of the random-coding union bound in quasi-static fading channels. , 2016, , .		5
44	Importance Sampling for Coded-Modulation Error Probability Estimation. IEEE Transactions on Communications, 2020, 68, 289-300.	7.8	5
45	Derivative of BICM mutual information. Electronics Letters, 2007, 43, 1219.	1.0	4
46	Converse bounds for finite-length joint source-channel coding. , 2012, , .		4
47	Mismatched Multi-Letter Successive Decoding for the Multiple-Access Channel. IEEE Transactions on Information Theory, 2018, 64, 2253-2266.	2.4	4
48	A Recursive Quantizer Design Algorithm for Binary-Input Discrete Memoryless Channels. IEEE Transactions on Communications, 2021, 69, 5069-5078.	7.8	4
49	Information rates of radiation as a photon gas. Physical Review A, 2008, 77, .	2.5	3
50	A lower bound for the capacity of the discrete-time Poisson channel. , 2009, , .		3
51	Extremes of random coding error exponents. , 2011, , .		3
52	Achieving Csisz&#x00E1;r's source-channel coding exponent with product distributions. , 2012, , .		3
53	Mismatched shaping schemes for bit-interleaved coded modulation. , 2012, , .		3
54	Second-order rate region of constant-composition codes for the multiple-access channel. , 2013, , .		3

#	ARTICLE	IF	CITATIONS
55	The mismatched multiple-access channel: General alphabets. , 2013, , .		3
56	Refinements of the third-order term in the fixed error asymptotics of constant-composition codes. , 2015, , .		3
57	Asymptotics of the error probability in quasi-static binary symmetric channels. , 2017, , .		3
58	New applications of the simple bound: random codes, serial turbo codes and punctured codes. , 0, , .		2
59	Coding and modulation for the additive exponential noise channel. , 2008, , .		2
60	The meta-converse bound is tight. , 2013, , .		2
61	Mismatched multi-letter successive decoding for the multiple-access channel. , 2014, , .		2
62	Improved information rates for bit-interleaved coded modulation. , 2015, , .		2
63	An achievable error exponent for the multiple access channel with correlated sources. , 2017, , .		2
64	Saddlepoint Approximation of the Cost-Constrained Random Coding Error Probability. , 2018, , .		2
65	Multiple-Access Channel with Independent Sources: Error Exponent Analysis. , 2018, , .		2
66	Joint Source-Channel Coding for the Multiple-Access Channel with Correlated Sources. , 2019, , .		2
67	An Exterior Algebraic Derivation of the Eulerâ€™Lagrange Equations from the Principle of Stationary Action. Mathematics, 2021, 9, 2178.	2.2	2
68	Asymptotics of the Random Coding Union Bound. , 2018, , .		2
69	Advanced decoding algorithms for Reed-Solomon/Convolutional concatenated codes. Annales Des Telecommunications/Annals of Telecommunications, 2005, 60, 45-78.	2.5	1
70	Capacity Bounds for the Einstein Radiation Channel. , 2006, , .		1
71	Bit-Interleaved Coded Modulation in the Wideband Regime. , 2007, , .		1
72	Random coding bounds that attain the joint source-channel exponent. , 2012, , .		1

#	ARTICLE	IF	CITATIONS
73	Low-complexity fixed-to-fixed joint source-channel coding. , 2014, , .		1
74	Achievable rates and exponents for asynchronous communication with ML decoding. , 2015, , .		1
75	A derivation of the cost-constrained sphere-packing exponent. , 2015, , .		1
76	A Mismatched Decoding Perspective of Channel Output Quantization. , 2019, , .		1
77	Asymptotics of the Random Coding Error Probability for Constant-Composition Codes. , 2019, , .		1
78	On the angular momentum and spin of generalized electromagnetic field for r-vectors in $(k, \hat{A}n)$ space-time dimensions. European Physical Journal Plus, 2021, 136, 1.	2.6	1
79	Capacity Bounds for Mimo Poisson Channels with Inter-symbol interference. , 2005, , 37-44.		0
80	Quantum Noise in Linear Amplifiers Revisited. , 2006, , .		0
81	Variations on the Gaussian Multiple-Access Channel. , 2007, , .		0
82	Information Rate loss from radiation decoherence. , 2009, , .		0
83	Error probability of BICM in fading channels: Uniform interleaving analysis. , 2009, , .		0
84	Improved exponents and rates for bit-interleaved coded modulation. , 2013, , .		0
85	Expurgated joint source-channel coding bounds and error exponents. , 2017, , .		0
86	Multi-Class Cost-Constrained Random Coding for Correlated Sources over the Multiple-Access Channel. Entropy, 2021, 23, 569.	2.2	0
87	Derivation of the Symmetric Stress-Energy-Momentum Tensor in Exterior Algebra. Journal of Physics: Conference Series, 2021, 2090, 012050.	0.4	0