

Min-Hsiu Hsieh

List of Publications by Year in descending order

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129
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1480
citing authors

#	ARTICLE	IF	CITATIONS
1	Guesswork With Quantum Side Information. IEEE Transactions on Information Theory, 2022, 68, 322-338.	1.5	2
2	Properties of Noncommutative Rényi and Augustin Information. Communications in Mathematical Physics, 2022, 390, 501-544.	1.0	4
3	Quantum Differentially Private Sparse Regression Learning. IEEE Transactions on Information Theory, 2022, 68, 5217-5233.	1.5	5
4	Efficient Bipartite Entanglement Detection Scheme with a Quantum Adversarial Solver. Physical Review Letters, 2022, 128, 110501.	2.9	6
5	Detecting positive quantum capacities of quantum channels. Npj Quantum Information, 2022, 8, .	2.8	7
6	Quantum circuit architecture search for variational quantum algorithms. Npj Quantum Information, 2022, 8, .	2.8	31
7	Duality Between Source Coding With Quantum Side Information and Classical-Quantum Channel Coding. IEEE Transactions on Information Theory, 2022, 68, 7315-7345.	1.5	5
8	Entanglement-assisted concatenated quantum codes. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	6
9	A Grover-search based quantum learning scheme for classification. New Journal of Physics, 2021, 23, 023020.	1.2	18
10	Non-Asymptotic Classical Data Compression With Quantum Side Information. IEEE Transactions on Information Theory, 2021, 67, 902-930.	1.5	15
11	Convergence Rates for the Quantum Central Limit Theorem. Communications in Mathematical Physics, 2021, 383, 223-279.	1.0	5
12	Strong Converse Bounds in Quantum Network Information Theory. IEEE Transactions on Information Theory, 2021, 67, 2269-2292.	1.5	5
13	Energy-Constrained Discrimination of Unitaries, Quantum Speed Limits, and a Gaussian Solovay-Kitaev Theorem. Physical Review Letters, 2021, 126, 190504.	2.9	17
14	Entanglement-assisted capacity regions and protocol designs for quantum multiple-access channels. Npj Quantum Information, 2021, 7, .	2.8	11
15	Asymmetric Quantum Concatenated and Tensor Product Codes With Large χ -Distances. IEEE Transactions on Communications, 2021, 69, 3971-3983.	4.9	7
16	Entanglement-assisted multiple-access channels: capacity regions and protocol designs. , 2021, , .		0
17	Experimental Quantum Generative Adversarial Networks for Image Generation. Physical Review Applied, 2021, 16, .	1.5	87
18	Quantum speedup in adaptive boosting of binary classification. Science China: Physics, Mechanics and Astronomy, 2021, 64, 1.	2.0	8

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19	Quantum Gram-Schmidt processes and their application to efficient state readout for quantum algorithms. <i>Physical Review Research</i> , 2021, 3, .	1.3	4
20	Learnability of Quantum Neural Networks. <i>PRX Quantum</i> , 2021, 2, .	3.5	31
21	Entanglement-assisted multiple-access channels: capacity regions and protocol designs. , 2021, , .		0
22	Randomized Benchmarking for Non-Markovian Noise. <i>PRX Quantum</i> , 2021, 2, .	3.5	9
23	One-Shot Capacity Bounds on the Simultaneous Transmission of Classical and Quantum Information. <i>IEEE Transactions on Information Theory</i> , 2020, 66, 2141-2164.	1.5	8
24	Single-Serving Quantum Broadcast Channel With Common, Individualized, and Confidential Messages. <i>IEEE Transactions on Information Theory</i> , 2020, 66, 7752-7771.	1.5	1
25	Guesswork with Quantum Side Information: Optimal Strategies and Aspects of Security. , 2020, , .		0
26	Noisy Quantum State Redistribution With Promise and the Alpha-Bit. <i>IEEE Transactions on Information Theory</i> , 2020, 66, 7772-7786.	1.5	1
27	Strong Converse Bounds in Quantum Network Information Theory. , 2020, , .		4
28	Simple bounds for one-shot pure-state distillation in general resource theories. <i>Physical Review A</i> , 2020, 102, .	1.0	5
29	Quantum Reverse Hypercontractivity: Its Tensorization and Application to Strong Converses. <i>Communications in Mathematical Physics</i> , 2020, 376, 753-794.	1.0	20
30	Matrix Infinitely Divisible Series: Tail Inequalities and Their Applications. <i>IEEE Transactions on Information Theory</i> , 2020, 66, 1099-1117.	1.5	1
31	Expressive power of parametrized quantum circuits. <i>Physical Review Research</i> , 2020, 2, .	1.3	117
32	Quantum-inspired algorithm for general minimum conical hull problems. <i>Physical Review Research</i> , 2020, 2, .	1.3	7
33	Superadditivity in Trade-Off Capacities of Quantum Channels. <i>IEEE Transactions on Information Theory</i> , 2019, 65, 3973-3989.	1.5	12
34	Matrix Poincaré, $\hat{1}$ -Sobolev inequalities, and quantum ensembles. <i>Journal of Mathematical Physics</i> , 2019, 60, 032201.	0.5	4
35	Inequivalent multipartite coherence classes and two operational coherence monotones. <i>Physical Review A</i> , 2019, 99, .	1.0	10
36	Convexity and Operational Interpretation of the Quantum Information Bottleneck Function. , 2019, , .		12

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37	Properties of Scaled Noncommutative Rényi and Augustin Information. , 2019, , .		1
38	Quantum Sphere-Packing Bounds With Polynomial Prefactors. IEEE Transactions on Information Theory, 2019, 65, 2872-2898.	1.5	21
39	Useful States and Entanglement Distillation. IEEE Transactions on Information Theory, 2018, 64, 4689-4708.	1.5	29
40	Approaches for approximate additivity of the Holevo information of quantum channels. Physical Review A, 2018, 97, .	1.0	60
41	Petz recovery versus matrix reconstruction. Journal of Mathematical Physics, 2018, 59, 042201.	0.5	2
42	Finite Blocklength and Moderate Deviation Analysis of Hypothesis Testing of Correlated Quantum States and Application to Classical-Quantum Channels With Memory. IEEE Transactions on Information Theory, 2018, 64, 593-612.	1.5	7
43	Moderate Deviation Analysis for Classical-Quantum Channels and Quantum Hypothesis Testing. IEEE Transactions on Information Theory, 2018, 64, 1385-1403.	1.5	25
44	Superadditivity in Trade-Off Capacities of Quantum Channels. , 2018, , .		2
45	Quantifying Resources in General Resource Theory with Catalysts. Physical Review Letters, 2018, 121, 190504.	2.9	41
46	Construction and Performance of Quantum Burst Error Correction Codes for Correlated Errors. , 2018, , .		8
47	One-shot assisted concentration of coherence. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 414001.	0.7	19
48	The Conditional Common Information in Classical and Quantum Secret Key Distillation. IEEE Transactions on Information Theory, 2018, 64, 7381-7394.	1.5	4
49	Error Exponents and Strong Converse Exponents for Classical Data Compression with Quantum Side Information. , 2018, , .		1
50	Contractivity properties of a quantum diffusion semigroup. Journal of Mathematical Physics, 2017, 58, .	0.5	8
51	Moderate deviations for classical-quantum channels. , 2017, , .		0
52	Sphere-packing bound for classical-quantum channels. , 2017, , .		0
53	Sphere-packing bound for symmetric classical-quantum channels. , 2017, , .		4
54	Moderate deviations for quantum hypothesis testing and a martingale inequality. , 2017, , .		0

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55	Round complexity in the local transformations of quantum and classical states. Nature Communications, 2017, 8, 2086.	5.8	12
56	Exponential decay of matrix $\hat{\rho}$ -entropies on Markov semigroups with applications to dynamical evolutions of quantum ensembles. Journal of Mathematical Physics, 2017, 58, .	0.5	8
57	On quantum tensor product codes. Quantum Information and Computation, 2017, 17, 1105-1122.	0.1	7
58	Second-order asymptotics for quantum hypothesis testing in settings beyond i.i.d.â€”quantum lattice systems and more. Journal of Mathematical Physics, 2016, 57, 062207.	0.5	15
59	On the MacWilliams Identity for Classical and Quantum Convolutional Codes. IEEE Transactions on Communications, 2016, 64, 3148-3159.	4.9	13
60	An upper bound on the second order asymptotic expansion for the quantum communication cost of state redistribution. Journal of Mathematical Physics, 2016, 57, 052203.	0.5	13
61	Entropy power inequalities for qudits. Journal of Mathematical Physics, 2016, 57, 052202.	0.5	24
62	Strong converse theorems using Rényi entropies. Journal of Mathematical Physics, 2016, 57, .	0.5	26
63	On the second-order asymptotics for entanglement-assisted communication. Quantum Information Processing, 2016, 15, 2569-2591.	1.0	33
64	The Private and Public Correlation Cost of Three Random Variables With Collaboration. IEEE Transactions on Information Theory, 2016, 62, 2034-2043.	1.5	4
65	Relating the Resource Theories of Entanglement and Quantum Coherence. Physical Review Letters, 2016, 117, 020402.	2.9	206
66	Concavity of the Auxiliary Function for Classical-Quantum Channels. IEEE Transactions on Information Theory, 2016, 62, 5960-5965.	1.5	10
67	Channel Simulation and Coded Source Compression. IEEE Transactions on Information Theory, 2016, 62, 6609-6619.	1.5	14
68	Strong converse theorems using Rényi entropies. , 2016, , .		0
69	Decoding quantum information via the Petz recovery map. Journal of Mathematical Physics, 2016, 57, 082203.	0.5	21
70	Characterizations of matrix and operator-valued $\hat{\rho}$ -entropies, and operator Efronâ€™Stein inequalities. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20150563.	1.0	6
71	The learnability of unknown quantum measurements. Quantum Information and Computation, 2016, 16, 615-656.	0.1	14
72	Fully quantum source compression with a quantum helper. , 2015, , .		2

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91	A Smooth Entropy Approach to Quantum Hypothesis Testing and the Classical Capacity of Quantum Channels. IEEE Transactions on Information Theory, 2013, 59, 8014-8026.	1.5	28
92	One-Shot Lossy Quantum Data Compression. IEEE Transactions on Information Theory, 2013, 59, 8057-8076.	1.5	27
93	Quantum Rate Distortion, Reverse Shannon Theorems, and Source-Channel Separation. IEEE Transactions on Information Theory, 2013, 59, 615-630.	1.5	43
94	Quantum-to-classical rate distortion coding. Journal of Mathematical Physics, 2013, 54, .	0.5	16
95	General Theory of Environment-Assisted Entanglement Distillation. IEEE Transactions on Information Theory, 2013, 59, 1940-1954.	1.5	16
96	Entanglement-assisted quantum error-correcting codes. , 2013, , 181-200.		2
97	NEW CLASS OF QUANTUM CODES CONSTRUCTED FROM CYCLIC DIFFERENCE SET. International Journal of Quantum Information, 2012, 10, 1250015.	0.6	5
98	The quantum dynamic capacity formula of a quantum channel. Quantum Information Processing, 2012, 11, 1431-1463.	1.0	47
99	The information-theoretic costs of simulating quantum measurements. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 453001.	0.7	44
100	Public and private resource trade-offs for a quantum channel. Quantum Information Processing, 2012, 11, 1465-1501.	1.0	24
101	Entanglement boosts quantum turbo codes. , 2011, , .		16
102	Adaptively correcting quantum errors with entanglement. , 2011, , .		3
103	One-Shot Rates for Entanglement Manipulation Under Non-entangling Maps. IEEE Transactions on Information Theory, 2011, 57, 1754-1760.	1.5	84
104	High Performance Entanglement-Assisted Quantum LDPC Codes Need Little Entanglement. IEEE Transactions on Information Theory, 2011, 57, 1761-1769.	1.5	83
105	The apex of the family tree of protocols: optimal rates and resource inequalities. New Journal of Physics, 2011, 13, 093042.	1.2	44
106	NP-hardness of decoding quantum error-correction codes. Physical Review A, 2011, 83, .	1.0	29
107	Multicasting homogeneous and heterogeneous quantum states in quantum networks. Nano Communication Networks, 2010, 1, 273-282.	1.6	0
108	The Quantum Capacity of Channels With Arbitrarily Correlated Noise. IEEE Transactions on Information Theory, 2010, 56, 1447-1460.	1.5	124

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109	Entanglement-Assisted Communication of Classical and Quantum Information. IEEE Transactions on Information Theory, 2010, 56, 4682-4704.	1.5	123
110	Trading classical communication, quantum communication, and entanglement in quantum Shannon theory. IEEE Transactions on Information Theory, 2010, 56, 4705-4730.	1.5	59
111	Entanglement generation with a quantum channel and a shared state. , 2010, , .		6
112	Distilling entanglement from arbitrary resources. Journal of Mathematical Physics, 2010, 51, .	0.5	40
113	Universal coding for transmission of private information. Journal of Mathematical Physics, 2010, 51, 122202.	0.5	7
114	Generalized relative entropies and the capacity of classical-quantum channels. Journal of Mathematical Physics, 2009, 50, .	0.5	47
115	Public and private communication with a quantum channel and a secret key. Physical Review A, 2009, 80, .	1.0	14
116	Entanglement-assisted quantum quasicyclic low-density parity-check codes. Physical Review A, 2009, 79, .	1.0	66
117	Min- and Max-Relative Entropies and a New Entanglement Monotone. IEEE Transactions on Information Theory, 2009, 55, 2816-2826.	1.5	310
118	Smooth Entropies and the Quantum Information Spectrum. IEEE Transactions on Information Theory, 2009, 55, 2807-2815.	1.5	62
119	Entanglement-Assisted Quantum Error-Correcting Codes. , 2009, , 161-172.		9
120	Entanglement-Assisted Capacity of Quantum Multiple-Access Channels. IEEE Transactions on Information Theory, 2008, 54, 3078-3090.	1.5	74
121	Secret-key-assisted private classical communication capacity over quantum channels. Physical Review A, 2008, 78, .	1.0	12
122	Classical enhancement of quantum-error-correcting codes. Physical Review A, 2008, 78, .	1.0	27
123	The coding theorem for a class of quantum channels with long-term memory. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 8147-8164.	0.7	48
124	General entanglement-assisted quantum error-correcting codes. Physical Review A, 2007, 76, .	1.0	104
125	General entanglement-assisted quantum error-correcting codes. , 2007, , .		8
126	Correcting Quantum Errors with Entanglement. Science, 2006, 314, 436-439.	6.0	367

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127	A novel channel interference identification. , 0, , .		2
128	Hierarchy of quantum operations in manipulating coherence and entanglement. Quantum - the Open Journal for Quantum Science, 0, 5, 480.	0.0	2
129	One-Shot Hybrid State Redistribution. Quantum - the Open Journal for Quantum Science, 0, 6, 724.	0.0	4